Meeting Notes

Section 106 Procedural Programmatic Agreement Public Informational Meeting
January 18, 2017, 7:00-8:30 pm
Ewa Elementary School

Sign-in Sheets attached.

Ed Sniffen (State of Hawaii Department of Transportation [HDOT]) provided introductory remarks and Rachel Adams (WSP | Parsons Brinckerhoff) presented. The audience was informed that the presentation would be available online at HDOT's website and were asked to hold their questions until after the presentation was completed. It was noted that the comment period would be until February 17, 2017 and that the project's email address (Former.OR&L@hawaii.gov) will remain active throughout the duration of the development of the Section 106 procedural PA.

After the presentation, the audience asked questions either from their seat or with the microphone provided.

Q: What is the process for Kualakai Parkway?

A: This meeting is not about specific projects. The Kualakai Parkway Extension Project will have to go through the complete environmental vetting process, including Section 106 clearance. HDOT cannot presuppose the outcome of that process.

Q: What are the criteria for the second and third tier? Is integrity of the rails along the entire length of the right-of-way (ROW) a consideration?

A: No, the tiers won't have anything to do with the integrity of the rails.

SHPD [Ms. Jessica Puff]: One consideration in creating the tiers is whether the undertaking has potential to affect other historic properties, the community is encouraged to make SHPD, HDOT, and FHWA aware of any other historic resources, within or adjacent to the ROW, that could be impacted by work in the ROW.

Q: [A resident of Varona Village was translating what was going on into Ilocano.] It was then mentioned that residents of Varona Village had heard that notices had been sent to the adjacent landowners. In the case of Varona Village, the landowner is the City and County of Honolulu. Individuals in this area would have liked to have been notified and note that other non-landowners may also have a vested interest in the proposed process.

A: Yes, letters were mailed to these landowners and information will continue to be sent to the legislators and others as HDOT moves through the process of creating the Section 106 Procedural Programmatic Agreement. There is the project email that can be used to contact the project team and a project website will be created that will contain more information as appropriate.

Q: What are the limits of this Procedural Programmatic Agreement and what impact does this have on other sections of the track?

A: The focus is on the section deeded to HDOT by the Federal Highway Administration and on the portion of the ROW that is listed on the National Register of Historic Places but please help by commenting on this – input on the limits to be considered is encouraged.

Q: There currently exists a petition on stopping the potential Kualakai Extension Project and supporting the Hawaiian Railway Society (HRS). The proposed crossing for the Kualakai Extension Project is very close to one for the Ka Makana Alii development, and that should be adequate for mall access. The new crossing, as part of the Kualakai Extension Project, would encroach on HRS property and hinder their operations. Over 700 people have signed the petition and to the effort to collect signatures will continue. Testimony has been provided against the Kualakai Extension Project and this group will continue to be engaged in the process.

A: The Kualakai Extension Project will go through the complete environmental review process. This Section 106 Procedural Programmatic Agreement will not alter the process. HDOT needs to protect the process by which projects are reviewed while making it possible for maintenance projects like HECO replacing a line to not be delayed one or two years. Even if a project is on the OMPO list, it doesn't mean it will happen. HDOT is focusing on preserving and maintaining existing roadways at this time.

Q: What is the timeline for the small group meetings?

A: The whole process is expected to take 2 years. Small group meetings will be held in the next 2 or 3 months. A 30-day notification will be sent to interested parties.

[Mr. Ross Stephenson noted that some are of the opinion that maintenance efforts on the railway do not need to go through the Section 106 process. HDOT has previously worked with SHPD on bridges and there were thoughts that had worked out well. HDOT noted that maintenance efforts on/along the former OR&L will have to go through the Section 106 process in some form, depending on the outcome of the PA. It was suggested that HDOT contact other states. Preserving railroads in developing areas is a common issue on the mainland in places like Illinois. HDOT noted that they have opted to consult with Hawaii's own local experts in preserving railroads (pointing to the Hawaiian Railway Society)] **Note**: The issue of the definition of an "undertaking" and Section 106 trigger discussed here was later clarified with SHPD via email on 1/19/2017, which is attached.

Q: Does this affect the East Kapolei Energy Corridor?

A: Specific projects are not referenced in the Section 106 Procedural Programmatic Agreement.

Q: Are there past projects that motivated this Section 106 Procedural Programmatic Agreement?

A: Definitely. Examples include Ka Makana Alii and the East Kapolei Energy Corridor. Smaller projects should not be required to coordinate through the Section 106 process in the same manner as larger, more comprehensive projects. However, HDOT also recognizes the need to understand cumulative impacts.

Q: How will stakeholders will be involved?

A: The stakeholders will be invited to meetings based on responses of interest. HDOT will consider the responses. There may be many small groups depending on the interests that are self-identified. It is not determined yet where they will be held but there will likely a mixture of meetings in town and in Ewa to accommodate the varying interests of the parties.

Q: What is the email address?

A: HDOT has posted it in the presentation, and it is included on the last slide, as shown. The email shown on the screen will be active throughout the project. If you don't have computer access, please let staff know.

Q: What is the status of the Kualakai Extension Project?

A: The Kualakai Extension Project is going through the Environmental Assessment process. This process will study both the feasibility of the proposed project and its potential impacts. There are several alternatives being considered.

Espin, Malie

From: Puff, Jessica L <jessica.l.puff@hawaii.gov>
Sent: Thursday, January 19, 2017 12:01 PM
To: Adams, Rachel
Cc: Mimura, Misako K; Aiu, Pua; Naboa, Deona; Espin, Malie; Tatsuguchi, Ken
Subject: RE: Former OR&L Procedural PA and Definition of an Undertaking

Thanks for following up Rachel. I was a little concerned that Ross's comments might confuse people about the definition of an undertaking and also the Deed requirements. It was good to hear Ed's understanding reflect both the deed and the Section 106 regulations but your email is putting me at ease that we're all on the same page and we don't need to go back to discuss the definition

Best,

Jess

Jessica L. Puff
Architectural Historian
Hawaii State Historic Preservation Division
#: (808) 692 8023
@: Jessica.l.puff@hawaii.gov

From: Adams, Rachel [mailto:AdamsRa@pbworld.com]
Sent: Thursday, January 19, 2017 11:39 AM
To: Puff, Jessica L
Cc: Mimura, Misako K; Aiu, Pua; Naboa, Deona; Espin, Malie; Tatsuguchi, Ken
Subject: Former OR&L Procedural PA and Definition of an Undertaking

Aloha Jessica,

I wanted to get back to you regarding our discussion of the definition of an "undertaking", and triggers of Section 106. I appreciate the comment that both you and Ross Stephenson brought up last night regarding the definition of an "undertaking", as one of the central messages that was being conveyed last night was that the PA would address the maintenance of the ROW (beyond the initial request for permit). I asked HDOT about this interpretation, and wanted to provide you with some information to assist on where this is coming from.

Last night, we focused on condition no 4., which addresses the written authorization of SHPD and FHWA as triggers. After speaking with HDOT, they pointed me to condition no. 1, which discusses the operation of a non-profit railroad museum, and requires that maintenance or alteration of said facilities be in accordance with State and Federal requirements to facilities listed on the National Register of Historic Places including but not limited to: a.NEPA; b. Section 106; c. EO 11953; Procedures of ACHP and Section 4(f). I copied two screen shots below for your use.

As written in the Deed, maintenance becomes a trigger for federal and State review or oversight as there is a burden to demonstrate compliance with the State and federal requirements being satisfied in maintenance activities. In this case, the "undertaking" is dictated by the Deed and not so much by the definition of an undertaking as defined by 36 CFR 800. The thought is to demonstrate compliance with this requirement for 106 within the PA.

I really appreciate that this concern was raised, as it helps in clarifying the discussion.

Thanks,
Rachel

assigns.

1. The GRANTEE, in consideration of the conveyance of said lands, does hereby covenant and agree as a covenant running with the land for itself, its successors and assigns that it will preserve the integrity of the railroad facilities located on said right-of-way including all rails, ties, signals, and appurtenances in their existing condition, natural and unavoidable deterioration excepted, provided, however, that said railroad facilities may be operated by an assignee as a non-profit historic railroad museum and provided that the operation, maintenance or alteration of said facilities shall be in accordance with State and Federal requirements applicable to facilities listed on the National Register of Historic Places including but not limited to:

a. Title 1 of the National Environmental Policy Act of 1969 (NEPA) 42 U.S.C. Section 4321 et seq.;

14814 322

b. Section 106 of the National Historic Preservation Act of 1966 16 U.S.C. Section 470f;

c. Section 1(3) and 2(b) of Executive Order 11593, May 13, 1971, "Protection and Enhancement of the Cultural Environment";

d. Procedures of the Advisory Council on Historic Preservation for the Protection of Historic and Cultural Properties (36 CFR Part 800); and

e. Section 4(f) of the Department of Transportation Act and 23 U.S.C. Section 138.

Any salvage resulting from tracks, ties or other railroad facilities not needed for the development of the operating railroad museum shall be returned to the General Services Administration.

2. No motorized vehicles shall be permitted on the bicycle lanes or paths or pedestrian walkways except for maintenance purposes conducted by the GRANTEE, its successors or assigns.

Rachel Adams

Supervising Planner

WSP | Parsons Brinckerhoff

1001 Bishop Street, Suite 2400
ASB Tower
Honolulu, HI 96813
Tel: 808-566-2257

www.wspgroup.com/usa
www.pbworld.com/usa

From: "Jordan A. Jensen" <JJensen@akrailroad.com>
Subject: **A&K Quote Hawaiian Railway Ewa Beach HI**
Date: April 14, 2009 11:26:53 AM HST
To: "Larry Howard" <larryh1@hawaiiantel.net>
Cc: "Jeff Long" <JLong@akrailroad.com>
1 Attachment, 434 KB Save

Jordan Jensen
Sales Assistant
A&K Railroad Materials Inc.
PO Box 30076
Salt Lake City, UT 84130
(801) 974-5484
(801) 977-6340
Fax: (801) 972-2041
jjensen@akrailroad.com
www.akrailroad.com

This is the company we buy rail items from. We believe the rail in Nanakuli is 60lb rail.

RECEIVED
MAY - 6 2009
PARSONS BRINC... FT
HONOLULU, HAW...

A & K RAILROAD MATERIALS, INC.

P.O. BOX 30076 • SALT LAKE CITY, UTAH 84130 • TELEPHONE (800) 453-8812

Hawaiian Railway
Attention: Larry Howard

www.akrailroad.com

DATE April 14, 2009

Phone: (808) 221-0806 Fax:
Email: larryh1@hawaiiantel.net

YOUR INQUIRY

QUOTATION NO JL-041409-01

WE THANK YOU FOR YOUR INQUIRY AND ARE PLEASED TO QUOTE AS FOLLOWS

QUANTITY	DESCRIPTION	PRICE
10 PC	Relay 70AS rail #1 in 30' lengths drilled 2 ½ x5	$776.35/PC
	Alternate	
10 PC	Relay 70AS rail #1 in 33' lengths drilled 2 ½ x5	$761.35/PC
12 PR	Relay 70AS joint bars FT drilled 5x5x5 for ¾" fasteners	$40.35/PR
12 KG	New 9/16x5 ½ industrial track spikes in 200# kegs (to fill pallet)	$270.57/KG

Breakdown

10 PC Relay 70AS rail $375.95/PC plus $400.40 for freight =$776.35/PC
12 PR Relay 70AS bars $24.75/PR plus $15.60 for freight = $40.35/PR
12 KG New 9/16x5 ½ spikes $164.40/KG plus $106.17 for freight=$270.57K

Prices shall be subject to change without notice.

*****Due to fluctuation in fuel prices, all freight rates are subject to change*****

CONDITIONS: All material quoted is subject to the conditions on the reverse side. All material quoted is subject to prior sale. Prices quoted are subject to change without notice.

F.O.B. Ewa Beach, HI

DELIVERY Stock

TERMS Net 30

BY Jeff Long

Jeff Long
jlong@akrailroad.com

FORM # A

THE OPPORTUNITY OF QUOTING IS APPRECIATED AND WE HOPE THAT WE MAY BE FAVORED WITH YOUR ORDER

☐ CUSTOMER COPY ☐ OFFICE COPY ☐ FILE COPY

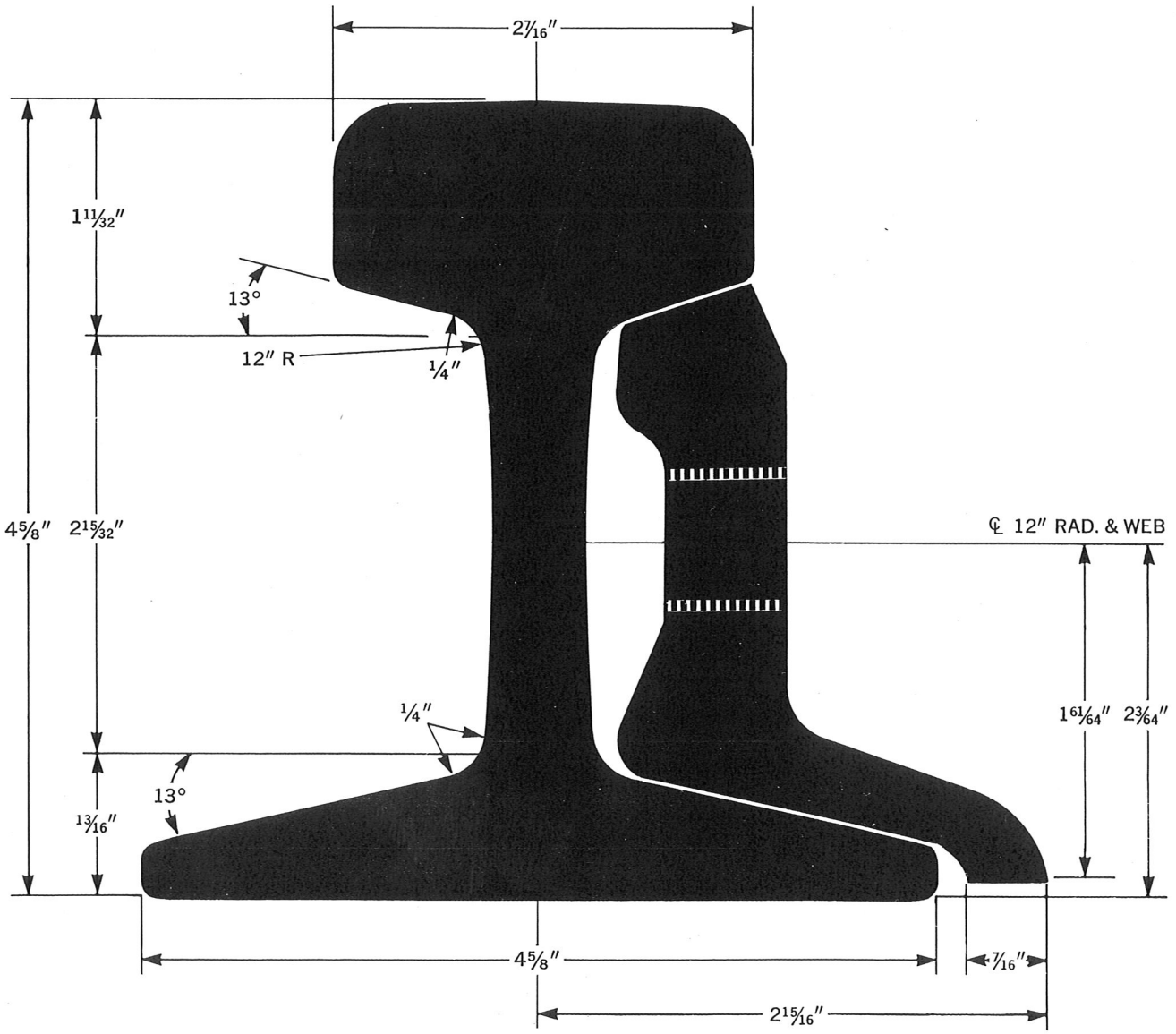
70-lb. A.S.C.E. RAIL

RAIL — A & K Section 7040

70 lbs. per yard
123.2 net tons per mile of track
42.8 feet of track per net ton
Stock lengths 30′ and 33′

ANGLE BARS

24″ length 40.0 lbs. per pair



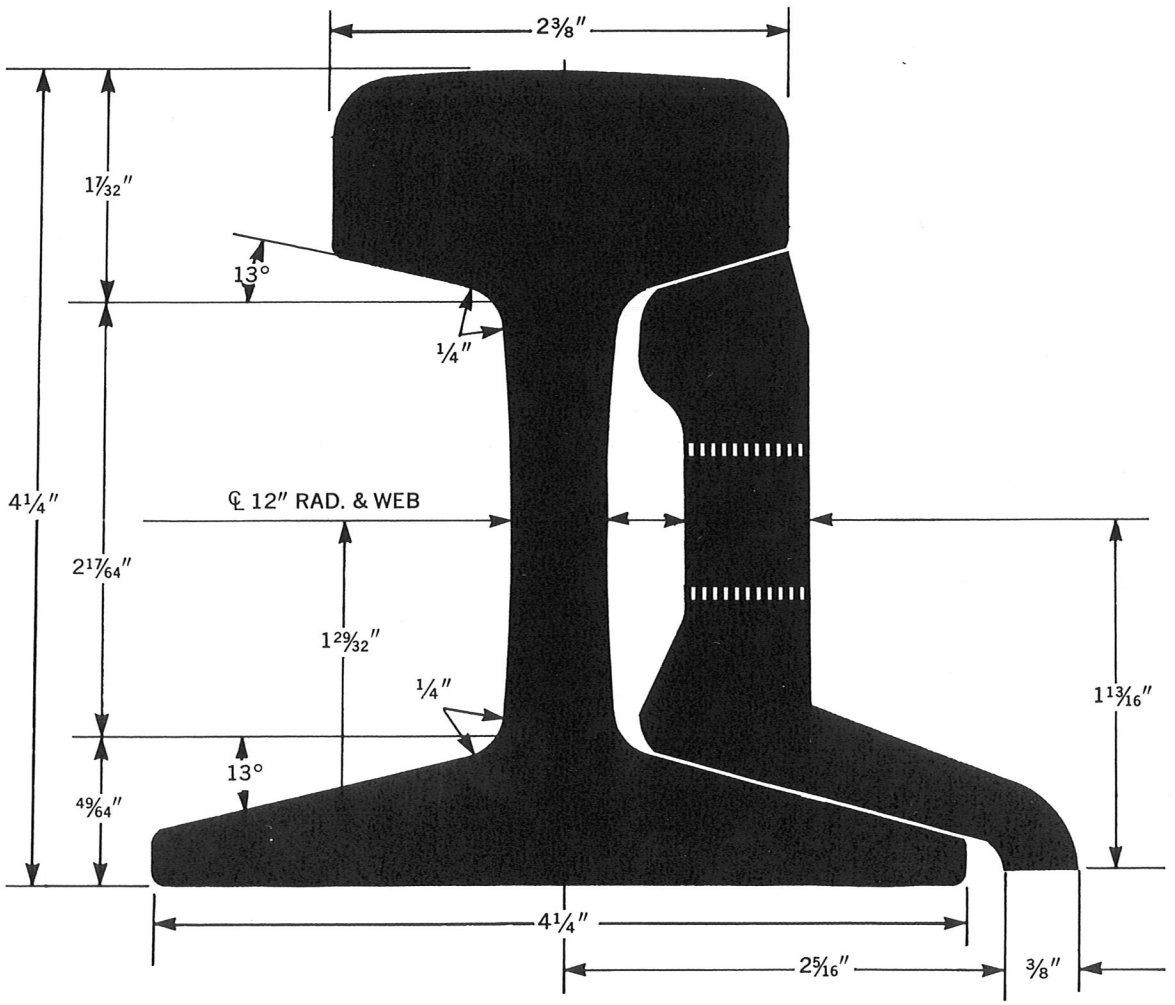
60-lb. A.S.C.E. RAIL

RAIL — A & K Section 6040

60 lbs. per yard
105.6 net tons per mile of track
50 feet of track per net ton
Stock lengths 30′ and 33′

ANGLE BARS

20″ length 27.2 lbs. per pair
24″ length 32.5 lbs. per pair



A quick comparison of Chemonite ACZA to creosote

Chemonite ACZA treated railroad ties are a vast improvement over creosote treated ties in efficacy and are environmentally a better choice. Creosote used in the tie industry has changed since the early 1980's in that the preservative solution has been cut 50% with oil. Originally creosote came from the coking process and was refracted from the waste product. Creosote is now primarily purchased from China, Mexico, and Europe. Little comes from the United States. Stake tests in the USDA's Forest Product Laboratory's, Comparison of Wood Preservatives in Stake Tests (2011 Progress Report) show creosote stake samples started in 1940 are still performing well but none with the diluted creosote preservative or the creosote preservative of today. Creosote contains at least 200 different **chemical compounds, most of which are aromatic hydrocarbons.** Due to the refraction process many of the most important constituents are bled off for other uses such as naphthalene which is an affective insecticide. ACZA stake tests which have been in place since 1981 and are still doing extremely well with no failures at retentions as low as 0.25 pcf. ACZA crosstie retentions are 0.40 pcf per AREMA.

Actually knowing what is in creosote is hard to determine due to the various origins of the coal and constituents that are extracted for other purposes as the previously mentioned naphthalene. Most ties used in the United States are hardwood and treated with creosote to refusal or gage retention instead of ACZA's exacting penetration and retention standards verified by bore samples and testing per the AWPA Standards. ACZA as a preservative has certain registered constituents which must be contained in the wood and quantified to their percentage and weight based on pounds per cubic foot. Thereby the customer can be assured of what is contained in ACZA preservative treated timber or ties.

Handling creosote treated wood has some limitations. In comparison to creosote treated wood which is pungent in smell and can produce chemical burns from handling, ACZA treated wood can be stored, handled and worked like untreated wood. When handling, cutting, or drilling untreated wood persons should use gloves and eye protection.

Another difference is in the leachate of both preservatives, creosote is treated with oil which results in an oily residue and all the problematic effects of that versus a highly immobile preservative with little loss of constituents over the life of the treated tie or timber especially in ground contact. ACZA treated wood has been continuously studied for its effectiveness and ability to perform in environmentally harsh conditions. These studies indicate that ACZA treated timbers are fire resistance, resistant to wood pecker damage and carpenter ants. Another study has shown that ACZA treated wood is very resistant to spike with drawl making it desirable for holding spikes and other screw like fasteners. ACZA has been used in the harshest environments and has performed admirably from salt water emersion in docks and piling to commercial cooling tower applications around the world.

chickenBallast shall consist of crushed and screened coral that is free of soft or disintegrated pieces, clay, dirt and other deleterious substances. Grading of ballast shall conform to the following:

Sieve Size	***Percent Passing By Weight***
2 Inch	*100*
1-1/2 Inch	*75-100*
1 Inch	*15-55*
3/4 Inch	*0-15*
3/8 Inch	*0-5*

J:\PROJECTS\DOT-FARRIGNTON HWY INTERSECTIONS NANAKULI HALEAKALA\Design\Railroad\Coral Ballast

Dear Rachel Adams,

This is information I dug up. The first sheet ~~is from~~ current Kalaeloa Boulevard plans. Im not sure how these notes were developed but first appeared during the first FT Weaver Rd. widening in the 1980's.

Ben Schlapak is our in house Civil Engineer. He can be reached at 836-6533.

We would like to change the lines that mention reusing the old rail. Any questions call me.

Aloha

Robert

This is from current Kalaeloa Boulevard Plans by R.M. Towill

RAILROAD NOTES FOR WORK WITHIN THE STATE'S 40 FOOT RAILROAD RIGHT-OF-WAY

April 2009

1. CONSTRUCTION METHOD AND MATERIAL SHALL CONFORM TO THE CURRENT EDITION OF THE AMERICAN RAILWAY ENGINEERING ASSOCIATION (A.R.E.A.) MANUAL FOR RAILWAY ENGINEERING AND STATE OF HAWAII HIGHWAY DIVISION "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION."

2. EXISTING RAILROAD BED SHALL BE REMOVED FOR NEW CONSTRUCTION WORK AND REPLACED.

3. EXISTING RAILROAD TRACK AND SPLICES SHALL BE REMOVED FOR NEW CONSTRUCTION WORK AND REPLACED. REUSE EXISTING RAILS AND SPLICES, EXCEPT FURNISH NEW BOLTS, NUTS AND WASHERS FOR SPLICES. NEW BOLTS SHALL BE THE SAME SIZE AS THE EXISTING BOLTS.

4. EXISTING TRACK RAILS SHALL BE REUSED. THE CONTRACTOR SHALL TAKE EXTREME CARE WHILE REMOVING, STORING AND REPLACING THE RAILS. ANY DAMAGE TO THE RAILS SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR, AND THE CONTRACTOR SHALL REPLACE THE DAMAGED RAILS AT HIS OWN EXPENSE.

5. BALLAST SHALL BE 1-INCH TO 1-1/2-INCH CORAL SCREENED.

6. CROSS TIES SHALL BE 6" X 8" X 8'-0" OR 6" X 8" X 6'-0" FOR NARROW GAUGE (3 FOOT) TRACK, HEART DOUGLAS FIR OR SOUTHERN WHITE PINE. ALL TIES SHALL BE FREE FROM ANY DEFECTS THAT MAY IMPAIR THEIR STRENGTH OR DURABILITY AS CROSS TIES, SUCH AS DECAY, LARGE SPLITS, LARGE SNAKES, LARGE OR NUMEROUS HOLES OR KNOTS, GRAIN WITH SLANT GREATER THAN 1 IN 15.

7. CROSS TIES SHALL BE TREATED WITH A CREOSOTE-COAL TAR SOLUTION CONFORMING TO A.R.E.A. MANUAL.

8. EXISTING TIES, IF FOUND IN USABLE CONDITION, MAY BE REUSED. ANY EXISTING SPIKE HOLES MUST BE PLUGGED WITH CEDAR OR REDWOOD PLUGS PRIOR TO REUSE, OTHERWISE NEW TIES MUST BE SUPPLIED.

9. RAIL SPLICE BOLTS, NUTS AND WASHERS SHALL CONFORM TO THE A.R.E.A. MANUAL FOR RAILWAY ENGINEERING.

10. STEEL CUT TRACK SPIKES SHALL BE 9/16" REINFORCED THROAT TRACK SPIKE 5-1/2" UNDERHEAD. THERE SHALL BE FOUR (4) SPIKES PER TIED PLACED INSIDE AND OUTSIDE OF RAIL STAGGERED.

11. LENGTH OF ALL RAILROAD TRACK RAILS BETWEEN SPLICES IS 33'-0" (AND VARIES).

12. RAILS MUST BE MACHINE CUT. (NOTE: RAILS CUT WITH TORCH WILL NOT BE ACCEPTABLE.)

13. ONE WEEK PRIOR TO STARTING WORK ON THE RAILROAD TRACK, CONTACT BEN SCHLAPAK OR LARRY HOWARD AT THE HAWAIIAN RAILWAY SOCIETY, 681-5461. WORK ON THE RAILROAD BED SHALL BE COORDINATED WITH AND APPROVED BY THE HAWAIIAN RAILWAY SOCIETY, P.O. BOX 60369, EWA STATION, EWA BEACH, HAWAII 96706.

14. CONSTRUCTION OF RAILROAD CROSSING SHALL BE PERFORMED DURING WEEKDAYS (MONDAY THRU FRIDAY). TRACKS SHALL BE REPLACED FOR HRS USE DURING THE WEEKEND (SATURDAYS AND SUNDAYS). CONTRACTOR SHALL PROVIDE TEMPORARY RAILROAD TRACK SUPPORT IN ACCORDANCE WITH THE ABOVE REQUIREMENTS.

15. CONTRACTOR SHALL NOTIFY STATE OF HAWAII DEPARTMENT OF LAND AND NATURAL RESOURCES (ATTN: STATE HISTORIC PRESERVATION DIVISION) AND DOT HIGHWAYS DIVISION (OAHU DISTRICT OFFICE, TELEPHONE NO. 831-6712), ONE WEEK PRIOR TO THE START OF THIS PROJECT, A FINAL INSPECTION SHALL BE CONDUCTED WITH DLNR, DOT HIGHWAYS AND HAWAIIAN RAILWAY SOCIETY TO VERIFY SUCCESSFUL REINSTALLATION OF TRACKS.

16. CHEVRON OIL LINES ARE KNOWN TO BE LOCATED NEAR OR WITHIN THE STATE'S EXISTING 40-FOOT RAILROAD RIGHT-OF-WAY. CONTRACTOR TO CONTACT CHEVRON USA ONE WEEK PRIOR TO EXCAVATION. SEE CHEVRON NOTES FOR CONTACT PERSON.

17. CONTRACTOR SHALL STAKEOUT PORTIONS OF THE STATE'S EXISTING 40-FOOT RAILROAD RIGHT-OF-WAY AT THE PROPOSED INTERSECTION PRIOR TO COMMENCEMENT OF ANY NEW WORK.

18. RAILROAD SIGNS AND AUTOMATED CROSSING GATES, WITHIN THE KALAELOA BOULEVARD RIGHT-OF-WAY SHALL BE OWNED AND MAINTAINED BY THE DEPARTMENT OF TRANSPORTATION SERVICES.

American Railway Engineering Association (AREA)

50 F Street, N.W.
Washington, DC 20001

Tel. (202) 639-2190

During the latter half of the 19th century, railroads in North America underwent rapid growth and development. Officers of engineering and maintenance-of-way departments were faced with

complex questions and needs for improved materials, designs, and procedures. On March 30, 1899, the American Railway Engineering Association (AREA) was formed. The purpose of the AREA was to study and report on problems in the maintenance of way and structures in railroading as practiced in North America.

The AREA headquarters were located in Chicago from its founding until 1979. The association then moved its headquarters to Washington, DC, to have a better liaison with the Association of American Railroads, the Federal Railroad Administration, and other related institutions. The need for closer contact with the U.S. federal government came with the advent of the track safety standards in 1971.

From its inception, the AREA has dealt with technical challenges through committees. Currently there are 23 different committees. The result of a committee's work and study often becomes part of the AREA *Manual for Railway Engineering.* This manual is revised annually to make the latest in recommended practice information for railway engineering available to all interested parties.

As stated in its constitution, the purpose of the AREA as it continues into the 21st century is "the advancement of knowledge pertaining to the scientific and economic location, construction, operation and maintenance of railways."

Membership

The basic qualifications for membership are five years of experience in the profession of maintaining, operating, constructing, or locating railways. Graduation from a recognized college or university with a degree in engineering is being taken as the equivalent to three years of experience. Today, the AREA's membership is over 3800 members.

Publications

AREA *Manual for Railway Engineering.* This manual, comprising the work of the association's committees, is revised annually to make the latest in recommended practice information for railway engineering available to all interested parties.

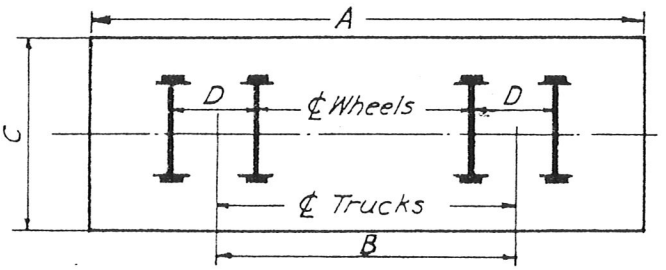
Portfolio of Trackwork Plans is also compiled and updated.

The AREA publishes a bulletin five times a year and has a monthly section in *Railway Track & Structures Magazine.*

RAILROADS — GENERAL

TABLE A – SPUR AND SIDING DESIGN DATA

	RECOMMENDED MAXIMUM DEGREE OF CURVE
HORIZONTAL CURVES See pp. 12-26 to 12-33, 14-06 and 14-07 for curve data functions of 1-degree curve, etc.	*For Steam Locomotives* Recommended general practice up to 14° or 16° Road Engines 18° Switch engines 23° *For Diesel-Electric Locomotives* Switching engines including cars 100'-150' radius; 60° to 39° Road switching engines 1750 hp. 150'-200' radius; 39° to 23° "Lead" unit road 2400 hp. 274' raidus 21° *For Cars* Freight cars (normal) Maximum 30°, (special) 50° Passenger cars (normal) maximum 14°, (special) 50°
REVERSE CURVES	Provide a tangent distance between curve, preferably exceeding 100'.
SUPERELEVATION	Superelevation requirements on Table A, p. 14-05.
GRADES	Maximum for road engines : use 1½%. For Diesel-electric engines, use 2%. For unavoidable grades greater than these, consult the using railroad. Both steamers and Diesels, properly geared (mechanically, or electrically) for the service can and do operate on much steeper grades. On heavy trains, about 3% grades being the maximum for main-line service. Maximum 4% for siding (but undesirable).
VERTICAL CURVES	50' minimum length. Use 200' or preferably.
TURNOUTS Details of turnouts on Table A, p. 14-03.	If avoidable, do not locate turnouts on superelevated curves. Use #10 (minimum) turnouts in any main track. Turnouts in ladder tracks #8 (minimum). Turnouts in yards, or from spurs or sidings used by a road engine to be generally #8's, by a switch engine #6 (minimum) only if conditions require. Long cars often uncouple or jump track on #5's. #10 and #11 turnouts are being used on many classification yards now being built.
OVERHEAD AND SIDE CLEARANCES	For diagrams of clearances, see Fig. A p. 14-02. Not less than 16'-0" is necessary to clear tops of highest cars and locomotives. A chart "Legal Requirements – Clearances," revised 12-1-57, published by American Railway Engineering Association, shows clearance laws, rules, or regulations of the states of the United States, including the District of Columbia and Canada.
TIE SPACING	Use 21" if road engines are to be used. 2'-0" maximum.
TIE PLATES	Use on curves and on creosoted ties and on all ties on heavy-service track.
TRACK GAGE	4'-8½" on tangents and curves up to 8°. Add ⅛" per 2° over 8° up to maximum of 4'-9¼".



DIAGRAMMATIC CAR PLAN

See table for dimensions.

SOME TYPICAL CAR DIMENSIONS (As per Diagram) *

Types of Cars	A	B	C	D	Extreme Height
1. PC – Passenger Coach	82'-5"	59'-6"	10'-0"	9'-0"	13'-6"
2. M & B – Mail & baggage	71'-2"	48'-7"	10'-0¼"	9'-0"	13'-6"
3. MC – Milk	50'-1½"	34'-7"	10'-1½"	8'-0"	13'-2"
4. ASB – All steel box	51'-9½"	40'-9½"	10'-7¼"	5'-6"	15'-1"
5. ASB – All steel box	42'-3¾"	31'-2¾"	9'-11⅝"	5'-6"	15'-5¼"
6. A – Steel auto box	41'-9½"	30'-9½"	10'-7¼"	5'-6"	5'-0⅞"
7. 70-H – 70-Ton hopper	40'-5"	30'-5"	10'-3¼"	5'-8"	11'-4¼"
8. CH – Covered hopper	35'-1⅛"	25'-1⅛"	10'-5"	5'-8"	12'-11 5/16"
9. Ta – 12,500-gal. tank (40'-0⅞" over tank heads – inside diameter of tanks)	43'-2"	32'-2½"	10'-2"	5'-6"	14'-1½"
10. HSG – High side gondola	68'-1"	32'-2½"	9'-1½"	5'-8"	7'-7"
11. ASF – All steel flat	54'-3"	43'-3"	10'-4"	5'-8"	5'-1¼"
12. ASF – All steel flat	42'-10½"	31'-10½"	10'-1¾"	5'-6"	5'-7¾"

FIG. B. CAR DIMENSIONS

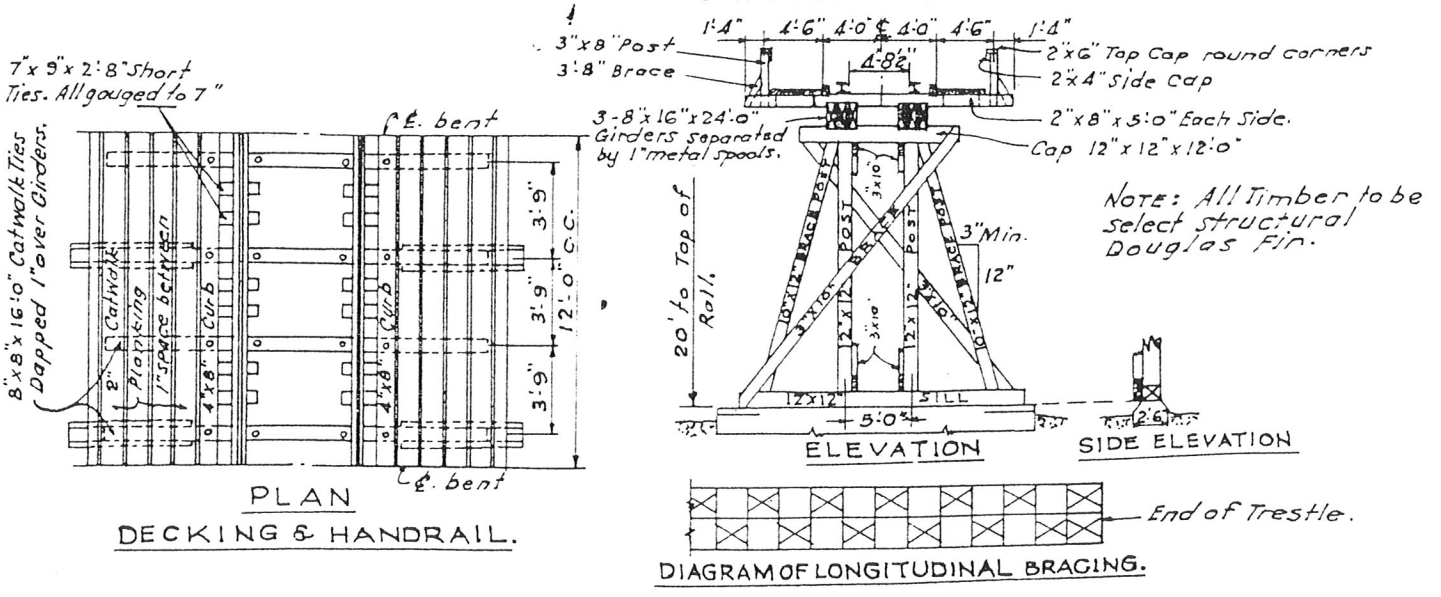
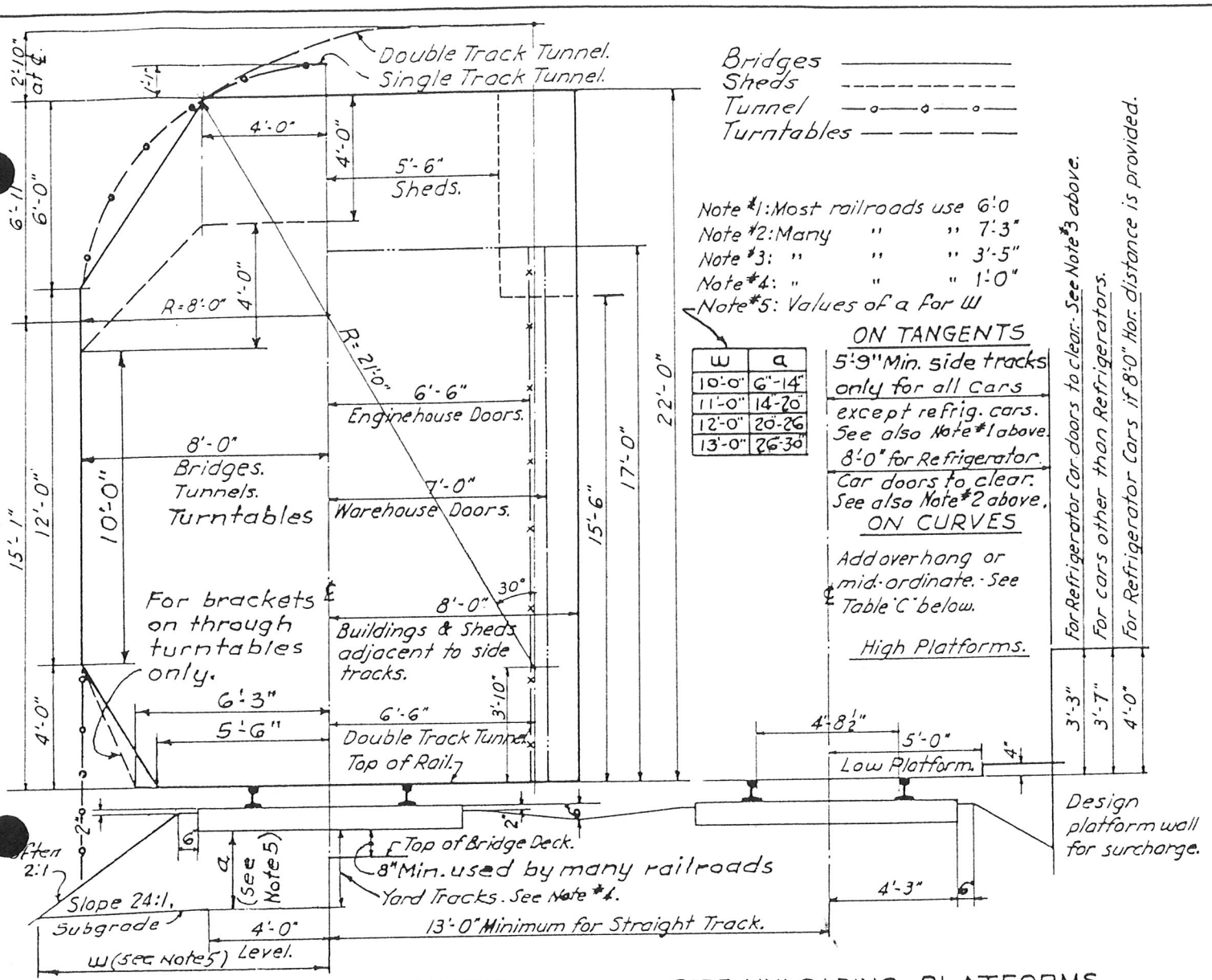


FIG. C. COAL TRESTLE DETAILS

RAILROADS — CLEARANCES



CLEARANCE & BALLAST SECTION. SIDE UNLOADING PLATFORMS.

FIG. A. TANGENT CLEARANCES.*

Note: Allow for curves as indicated in Table C

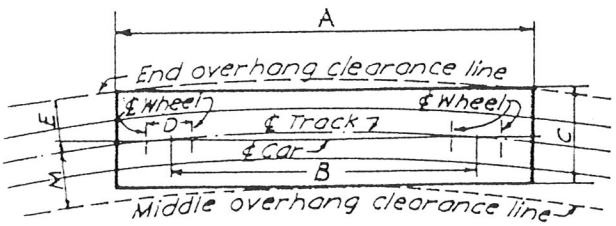


FIG. B - END & MIDDLE OVERHANG.

$$M = R - \sqrt{R^2 - \left[\frac{D^2}{4} + \frac{B^2}{4}\right]}$$

$$E = \sqrt{\left(R - M + \frac{C}{2}\right)^2 + \frac{A^2}{4}} - R$$

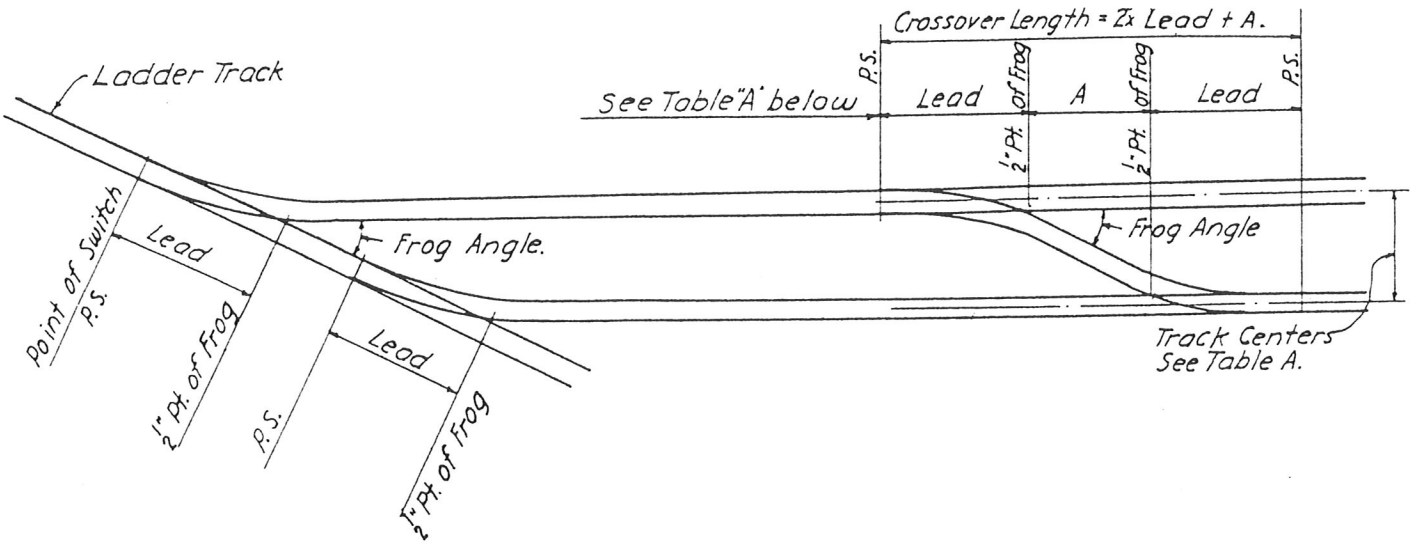
e 14' high car for tilt clearances.

TABLE C — MIDDLE AND END ADDITIONAL "OVERHANGS" ON CURVES

Cars		Curves						
		2°	5°	9°	13°	18°	23°	30°
1 PC — Passenger coach	M	0.158	0.395	0.711	1.029	1.426	1.824	2.385
	E	5.137	5.441	5.612	5.876	6.201	6.633	6.952
2 M & B — Mail & baggage	M	0.107	0.266	0.480	0.693	0.960	1.228	1.605
	E	5.124	5.295	5.517	5.737	6.008	6.274	6.635
3 MC — Milk	M	0.053	0.133	0.238	0.344	0.477	0.609	0.795
	E	5.119	5.207	5.314	5.422	5.556	5.785	5.869
4 ASB — All steel box	M	0.074	0.185	0.333	0.481	0.666	0.852	1.112
	E	5.345	5.408	5.491	5.573	5.672	5.769	5.900
5 ASB — All steel box	M	0.044	0.110	0.198	0.286	0.396	0.506	0.660
	E	5.018	5.068	5.135	5.200	5.281	5.359	5.466
6 SAB — Steel auto box	M	0.043	0.107	0.192	0.278	0.384	0.491	0.641
	E	5.335	5.385	5.450	5.514	5.593	5.669	5.774
7 70-H — 70 Ton hopper	M	0.042	0.105	0.188	0.272	0.377	0.481	0.628
	E	5.165	5.208	5.266	5.322	5.390	5.458	5.549
8 CH — Covered hopper	M	0.029	0.073	0.131	0.188	0.261	0.333	0.435
	E	5.233	5.269	5.318	5.367	5.425	5.482	5.560
9 Ta — Tank car	M	0.047	0.117	0.210	0.303	0.420	0.536	0.701
	E	5.117	5.168	5.236	5.303	5.383	5.464	5.571
10 HSG — High side gondola	M	0.140	0.350	0.628	0.911	1.262	1.614	2.110
	E	4.624	4.716	4.838	4.953	5.097	5.257	5.424
11 ASF — All steel flat	M	0.083	0.208	0.374	0.540	0.748	0.957	1.249
	E	5.212	5.278	5.366	5.352	5.556	5.657	5.796
12 ASF — All steel flat	M	0.046	0.115	0.206	0.297	0.412	0.526	0.686
	E	5.107	5.157	5.225	5.291	5.371	5.451	5.559

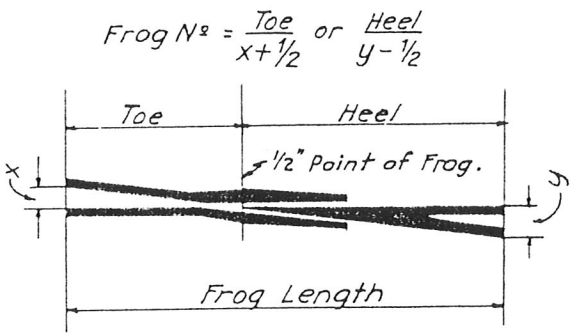
*All data in accord with American Railway Engineers Association (A.R.E.A.) recommendation.

RAILROADS – TURNOUTS & CROSSOVERS

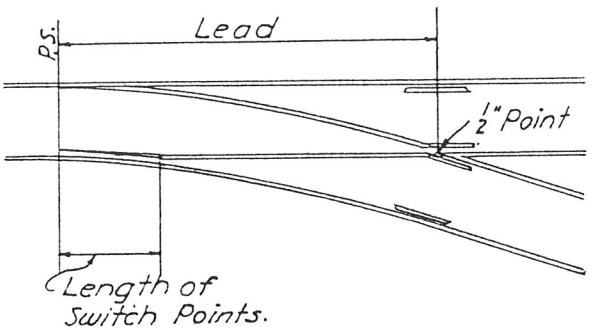


TURNOUT

CROSSOVER



FROG DETAIL



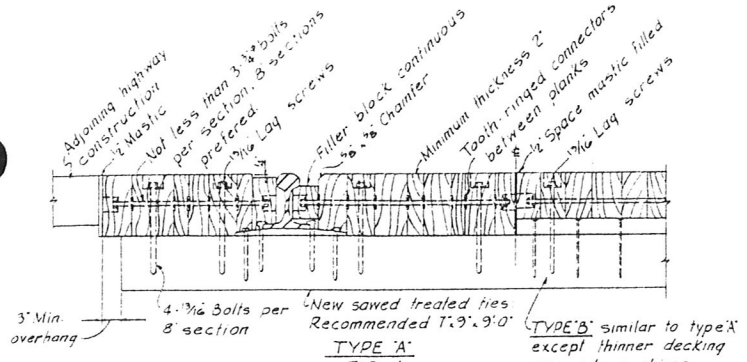
SPLIT-SWITCH TURNOUT

TABLE A – FROGS, SWITCHES AND CROSSOVERS

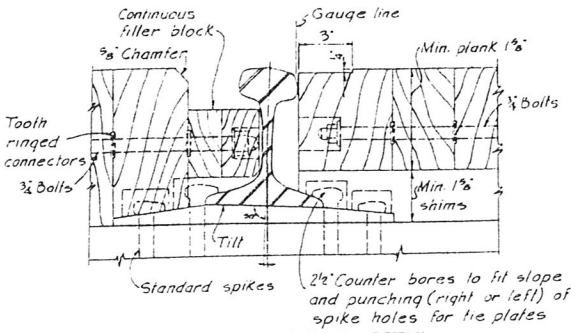
Straight Switch Turnout		Frog		Curved Switch Turnout		Crossovers Distances A Between ℄ of Parallel Tracks		Q†
Lead	Switch Point	No.	Angle	Switch Point	Lead	13'-0"	14'0"	
42'-6½"	11'-0"	5	11° 25' 16"	13'-0"	46'-6½"	16'-10 13/16"	21'-10¼"	0'-5 15/16"
47'-6"	11'-0"	6	9° 31' 39"	13'-0"	49'-9"	20'-5½"	26'-5"	0'-7⅛"
62'-1"	16'-6"	7	8° 10' 16"	13'-0"	54'-8½"	24'-0⅜"	30'-11 5/16"	0'-8⅜"
68'-0"	16'-6"	8	7° 09' 10"	13'-0"	58'-11½"	27'-7⅛"	35'-6¾"	0'-9 9/16"
72'-3½"	16'-6"	9	6° 21' 35"	19'-6"	74'-1¼"	31'-1⅝"	40'-1 5/16"	0'-10¾"
78'-9"	16'-6"	10	5° 43' 29"	19'-6"	78'-11"	34'-8½"	44'-7 15/16"	0'-11 15/16"
91'-10¼"	22'-0"	11	5° 12' 18"	19'-6"	83'-6"	38'-2½"	49'-2¼"	1'-1 3/16"
96'-8"	22'-0"	12	4° 46' 19"	19'-6"	87'-3½"	41'-8¾"	53'-8½"	1'-2⅜"
107'-0¾"	22'-0"	14	4° 05' 27"	26'-6"	108'-7½"	48'-9¼"	62'-9 1/16"	1'-4 13/16"
126'-4½"	30'-0"	15	3° 49' 06"	26'-6"	113'-5"	52'-3 7/16"	67'-2 5/8"	1'-6"
131'-4"	30'-0"	16	3° 34' 47"	26'-6"	118'-5"	55'-9⅜"	71'-11 3/16"	1'-7 3/16"
140'-11½"	30'-0"	18	3° 10' 56"	39'-0"	147'-0½"	62'-9⅞"	80'-9¾"	1'-9 9/16"
151'-11½"	30'-0"	20	2° 51' 21"	39'-0"	156'-0½"	69'-10"	89'-9⅞"	2'-0"
		20		39'-0"	156'-0½"	69'-10"	89'-9⅞"	2'-0"
		20		45'-0"	160'-9 1/10"	69'-9 15/16"	89'-9 3/16"	2'-0"
		20		30'-0"	153'-5½"	–	89'-9 3/16"	2'-0"
		30		45'-0"	211'-8¾"	–	–	–

† Figures in column Q give the amounts to add to tabular figures for every tenth of a foot increase in distance between tracks.

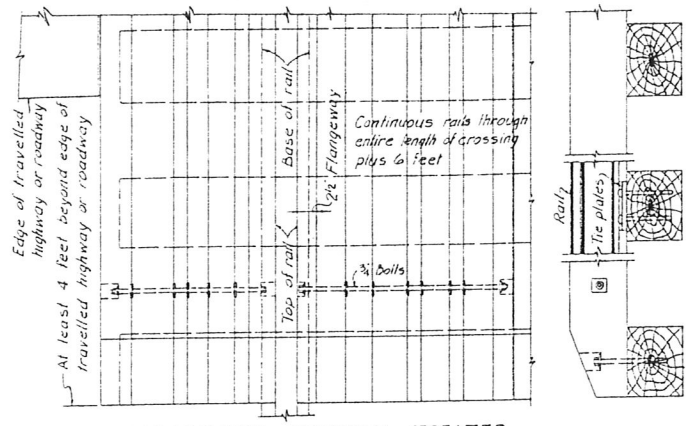
RAILROADS — GRADE CROSSINGS



TYPE 'A'
FIG. A



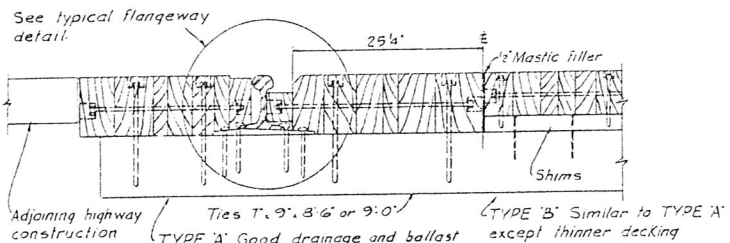
TYPICAL FLANGEWAY DETAIL
FOR FIG. A, B, C TYPE A & B.



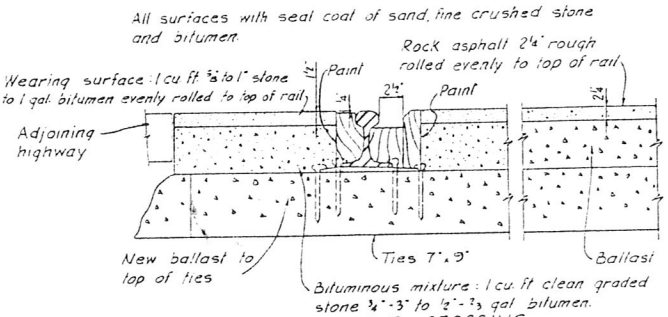
PREFABRICATED SECTIONAL TREATED
TIMBER CROSSING

TABLE GRADE CROSSING CLASSIFICATION						
CLASS OF HIGHWAY TRAFFIC	R.R. SPEED	BITUMINOUS	WOOD PLANK	PREFABRICATED TIMBER	PRECAST CONCRETE	MONOLITHIC CONCRETE
NUMBER		1	2	3	4	5
IMPROVED HEAVY	HS	✓		✓	✓	
	LS	✓		✓	✓	✓
IMPROVED MEDIUM	HS	✓		✓	✓	
	LS	✓		✓	✓	✓
IMPROVED LIGHT	HS		✓	✓	✓	
	LS		✓	✓	✓	✓
UNIMPROVED LIGHT	HS	✓	✓			
	LS	✓	✓			

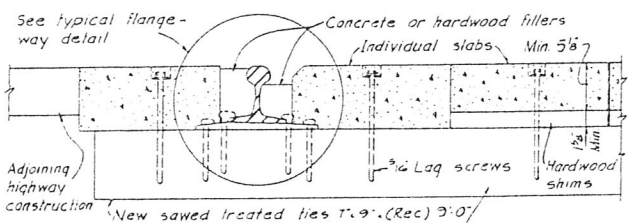
Numbers 2, 3 & 4 each comprise Types A & B, and Nos. 1 & 5 are single. All are drawn from AREA's specifications and charted to illustrate AREA's recommendations for their use on different type crossings. H.S. = High speed; L.S. = Low speeds.



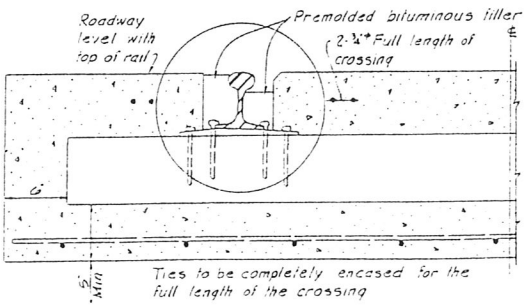
WOOD PLANK CROSSING
FIG. B



BITUMINOUS CROSSING
FIG. C



PRECAST CONCRETE CROSSING



Track to be supported on brick, stone, etc.
Track to be carefully levelled.

MONOLITHIC CONCRETE CROSSING

LOADING AND DESIGN BASIS FOR PRECAST CONCRETE CROSSING

AA of SHO. H-15 Loading for truck train with max. axle load @ 24,000#, or with H-20 similarly loaded @ 32,000#. Units designed for concentrated wheel loads of ½ of said axle loads, placed for max. stresses in the direction of traffic equal to width of slab with max. of 17" - no distribution perpendicular to traffic, with 50% impact in both moment and shear at stresses not greater than ⅔ of the elastic limit for reinf., and ½ of the ultimate strength of concrete @ 28 days. Slabs supported on 3 or more ties shall be designed as above, with one intermediate tie not in bearing. Covering of reinf. shall be not less than 1". Clearances shall be provided for tieplates and spike heads.

U

To: David Yamamoto, Sato + Assoc. 942 2027 - Fax

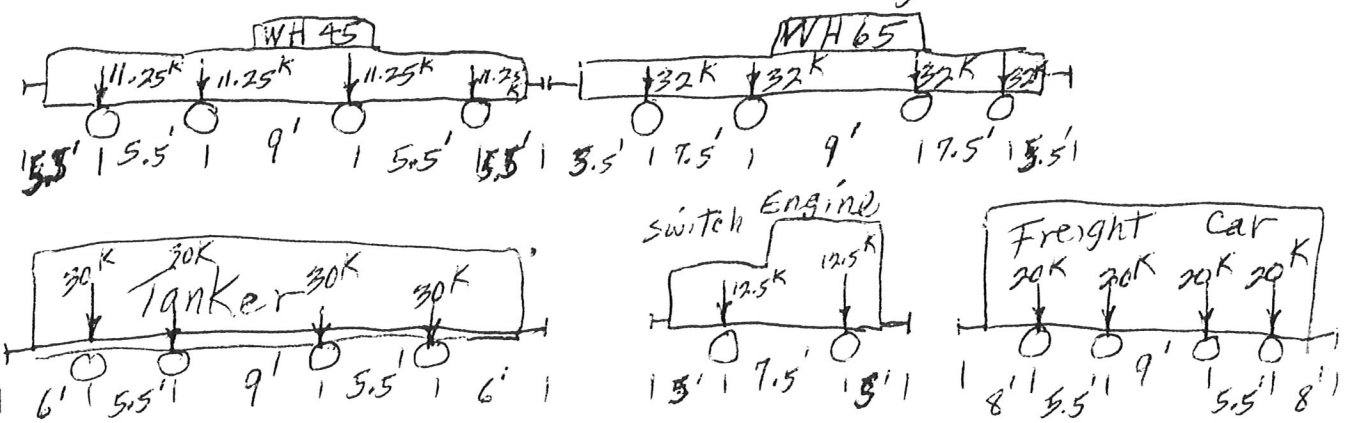
Subject: Kaloé Stream RR + Bikeway Bridge

1. Attached find extract from FRA standards — We operate only class 1 Track and would never get beyond class 2 so 30 mph is recommended for design speed.

2. I checked the site. The fence shown in The Towill drawing (makai) is gone but the concrete pad is still there about 16 paces west of HECO pole #182. Yes there is a high radius curve and the rails are slightly curved. You can plan on using them again. The Golf Course has a deep hole makai already.

3. Cooper E-30 loadings are 0.6(E-50) and are 15 Ton axle loadings from two locomotives plus a uniform loading of 3000 #/ft.. 5' Axle spacing.

Our maximum load: Axle loadings



Ben Schlapak, HRS, 15 May 98

WORK WITHIN 40-FOOT WIDE RAILROAD RIGHT-OF-WAY NOTES

1. CONSTRUCTION METHOD AND MATERIAL SHALL CONFORM TO THE CURRENT EDITION OF THE AMERICAN RAILWAY ENGINEERING ASSOCIATION (A.R.E.A.) MANUAL FOR RAILWAY ENGINEERING AND STATE OF HAWAII DIVISION "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION".

2. BALLAST SHALL BE 1 TO 1-1/2 INCH CORAL SCREENED.

3. CROSS TIES SHALL BE 6" x 8" x 8'-0" OR 6" x 8" x 6'-0" (DXWSL) "HEART" DOUGLAS FIR. ALL TIES SHALL BE FREE FROM ANY DEFECTS THAT MAY IMPAIR THEIR STRENGTH OR DURABILITY AS CROSS TIES, SUCH AS DECAY, LARGE SPLITS, LARGE SNAKES, LARGE OR NUMEROUS HOLES OR KNOTS, GRAIN WITH SLANT GREATER THAN 1-IN-15. ANY EXISTING SPIKE HOLES MUST BE PLUGGED WITH CEDAR OR REDWOOD PLUGS.

4. EXISTING TRACK RAILS SHALL BE REUSED. THE CONTRACTOR SHALL TAKE EXTREME CARE WHILE REMOVING, STORING AND REPLACING THE RAILS. ANY DAMAGE TO THE RAILS SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR, AND THE CONTRACTOR SHALL REPLACE THE DAMAGED RAILS AT HIS OWN EXPENSE.

5. RAIL SPLICE BOLTS, NUTS AND WASHERS SHALL CONFOkM TO THE A.R.E.A. MANUAL FOR RAILWAY ENGINEERING.

6. STEEL CUT TRACK SPIKES SHALL BE 9/16" REINFORCED THROAT TRACK SPIKE, 5-1/2" UNDERHEAD. THERE SHALL BE FOUR (4) SPIKES PER TIE PLACED INSIDE AND OUTSIDE OF RAIL, STAGGERED.

7. CROSS TIES SHALL BE TREATED WITH CRESOTE-COAL TAR SOLUTION CONFORMING TO A.R.E.A. MANUAL.

8. LENGTH OF ALL R.R. TRACK RAILS BETWEEN SPLICES = 33'-0"±.

9. EXISTING R.R. TRACK AND SPLICES TO BE REMOVED FOR NEW CONSTRUCTION WORK AND REPLACED. REUSE EXISTING RAILS AND SPLICES, EXCEPT FURNISH NEW BOLTS, NUTS AND WASHERS FOR SPLICES. NEW BOLTS SHALL BE THE SAME SIZE AS THE EXISTING BOLTS.

10. RAILS MUST BE MACHINE CUT.
(NOTE: RAILS CUT WITH TORCH WILL NOT BE ACCEPTED.)

11. ONE WEEK PRIOR TO STARTING WORK ON THE RAILROAD TRACK, CONTACT ~~WALTER C. GREY, JR. OF~~ THE HAWAIIAN RAILWAY SOCIETY, AT ~~537-8156~~ 6815461 WORK ON THE RAILROAD TRACK SHALL BE COORDINATED AND APPROVED BY THE HAWAIIAN RAILWAY SOCIETY, P. O. BOX 1208, EWA STATION, EWA BEACH, HAWAII 96706.

12. EXISTING RAILROAD TRACKS SHALL BE AT THE ORIGINAL GRADE AND LOCATION.

13. EXISTING TRACK BEDDING SHALL BE REMOVED FOR NEW CONSTRUCTION WORK AND REPLACED.

14. CHEVRON OIL LINES ARE KNOWN TO BE LOCATED WITHIN RAILROAD RIGHT-OF-WAY. THE CONTRACTOR TO CONTACT CHEVRON U.S.A., ONE WEEK PRIOR TO EXCAVATION. SEE CHEVRON NOTES FOR CONTACT PERSON.

15. THE CONTRACTOR SHALL STAKE OUT PORTIONS OF THE 40-FOOT RAILROAD RIGHT-OF-WAY NEAR THE PROPOSED UTILITY CONNECTIONS PRIOR TO COMMENCEMENT OF ANY NEW WORK.

16. THE CONTRACTOR SHALL REPLACE ANY RAILROAD TIES IN NON-USABLE CONDITION.

17. THE CONTRACTOR SHALL CLEAN THE FLANGEWAY AT ALL EXISTING ROAD CROSSINGS AND GOLF CART PATH CROSSINGS.

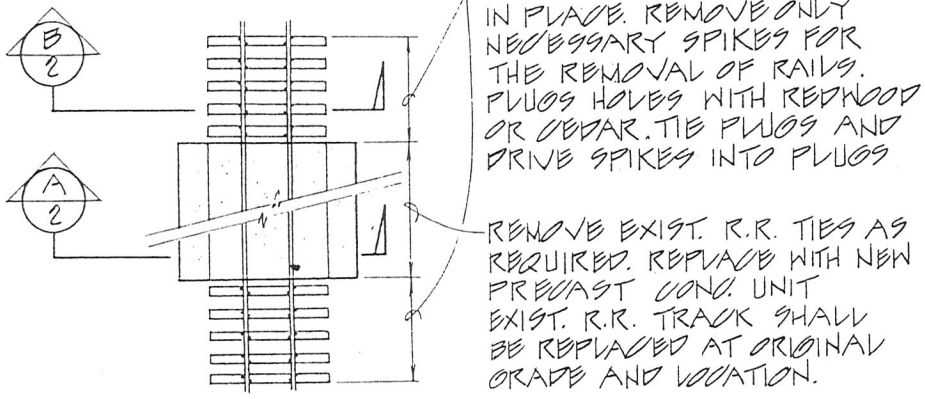
18. THE CONTRACTOR SHALL PROVIDE RAIL ANCHORS EVERY EIGHT TO TEN TIES MINIMUM.

19. THE CONTRACTOR SHALL REPLACE TIES AS NECESSARY TO PROVIDE SOLID TIES AT SIXTY INCH ON-CENTER MAXIMUM SPACING WHERE EXISTING RAILS DO NOT HAVE TO BE REMOVED.

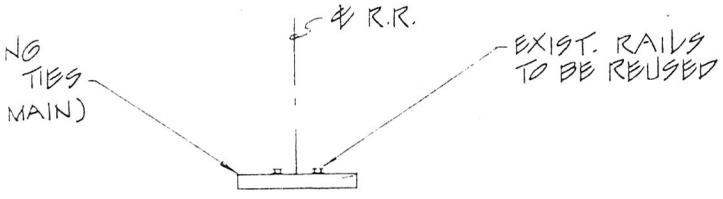
20. THE DISTANCE BETWEEN THE TRACK RAILS SHALL BE CHECKED ALONG THE ENTIRE LENGTH WITHIN THE PROJECT LIMITS TO CONFORM TO THE CURRENT EDITION OF THE A.R.E.A. MANUAL FOR RAILWAY ENGINEERING.

21. THE CONTRACTOR SHALL CHECK THE TRACK ALIGNMENT AND ELIMINATE ANY "KINKS" PRIOR TO COMPLETION OF WORK.

Post-it® Fax Note 7671	Date	# of pages ▶ 8
To Nathan Napoka	From Ben Schlagak	
Co./Dept. DLNR-Hist. Pres.	Co. HRS	
Phone # 587 0040	Phone # ~~538 8821~~	
Fax # 587 0018	Fax # ~~538 8751~~	



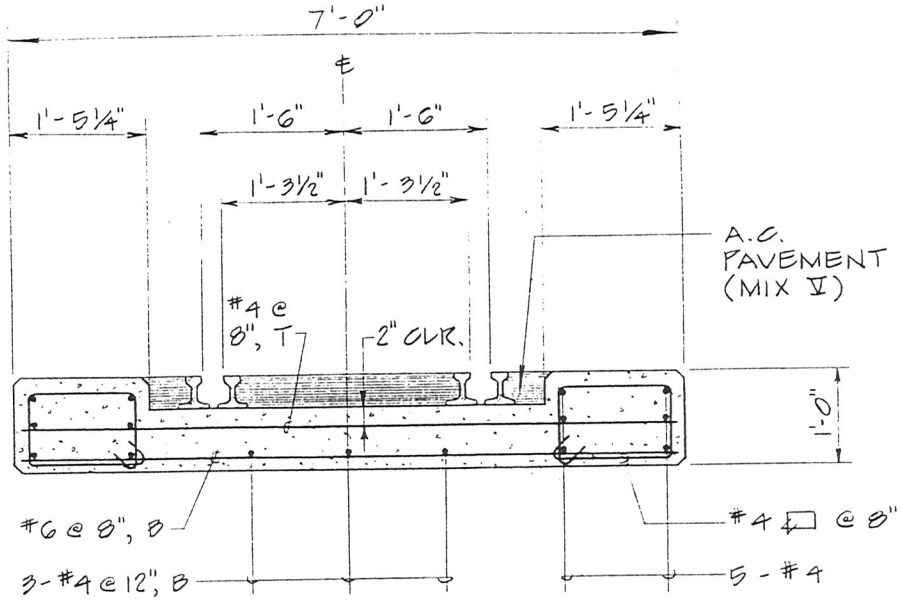
PLAN



SECTION B/2

RECONSTRUCTION OF AILROAD TRACK DETAIL

NOT TO SCALE



NOTES:

1. ALL CONCRETE SHALL BE PRE-CAST. fc' = 5000 PSI.
2. PRE-CAST SECTIONS SHALL HAVE A LENGTH OF 8'-0".
3. ALL REINFORCING STEEL SHALL BE GRADE 60.
4. ALL REINFORCING CLEARANCES FROM CONCRETE EDGES SHALL BE 1½", UNLESS OTHERWISE NOTED.

PRE-CAST CONCRETE CROSSING UNIT DETAIL

SCALE: ¾"=1'-0"

NOTES FOR WORK WITHIN 40-FOOT WIDE RAILROAD RIGHT-OF-WAY

1. CONSTRUCTION METHOD AND MATERIAL SHALL CONFORM TO THE CURRENT EDITION OF THE AMERICAN RAILWAY ENGINEERING ASSOCIATION (A.R.E.A.) MANUAL FOR RAILWAY ENGINEERING AND STATE OF HAWAII HIGHWAY DIVISION "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION."

2. BALLAST SHALL BE 1 INCH TO 1-1/2-INCH CORAL SCREENED.

3. CROSS TIES SHALL BE 6" X 8" X 8'-0" "HEART" DOUGLAS FIR. ALL TIES SHALL BE FREE FROM ANY DEFECTS THAT MAY IMPAIR THEIR STRENGTH OR DURABILITY AS CROSS TIES, SUCH AS DECAY, LARGE SPLITS, LARGE SNAKES, LARGE OR NUMEROUS HOLES OR KNOTS, GRAIN WITH SLANT GREATER THAN 1 IN 15.

4. CROSS TIES SHALL BE TREATED WITH A CREOSOTE-COAL TAR SOLUTION CONFORMING TO A.R.E.A. MANUAL.

5. EXISTING TIES, IF FOUND IN USABLE CONDITION, MAY BE REUSED. ANY EXISTING SPIKE HOLES MUST BE PLUGGED WITH CEDAR OR REDWOOD PLUGS PRIOR TO REUSE, OTHERWISE NEW TIES MUST BE SUPPLIED.

6. EXISTING TRACK RAILS SHALL BE REUSED. THE CONTRACTOR SHALL TAKE EXTREME CARE WHILE REMOVING, STORING AND REPLACING THE RAILS. ANY DAMAGE TO THE RAILS SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR, AND THE CONTRACTOR SHALL REPLACE THE DAMAGED RAILS AT HIS OWN EXPENSE.

7. RAIL SPLICE BOLTS, NUTS AND WASHERS SHALL CONFORM TO THE A.R.E.A. MANUAL FOR RAILWAY ENGINEERING.

8. STEEL CUT TRACK SPIKES SHALL BE 9/16" REINFORCED THROAT TRACK SPIKE 5-1/2" UNDERHEAD. THERE SHALL BE FOUR (4) SPIKES PER TIE PLACED INSIDE AND OUTSIDE OF RAIL, STAGGERED.

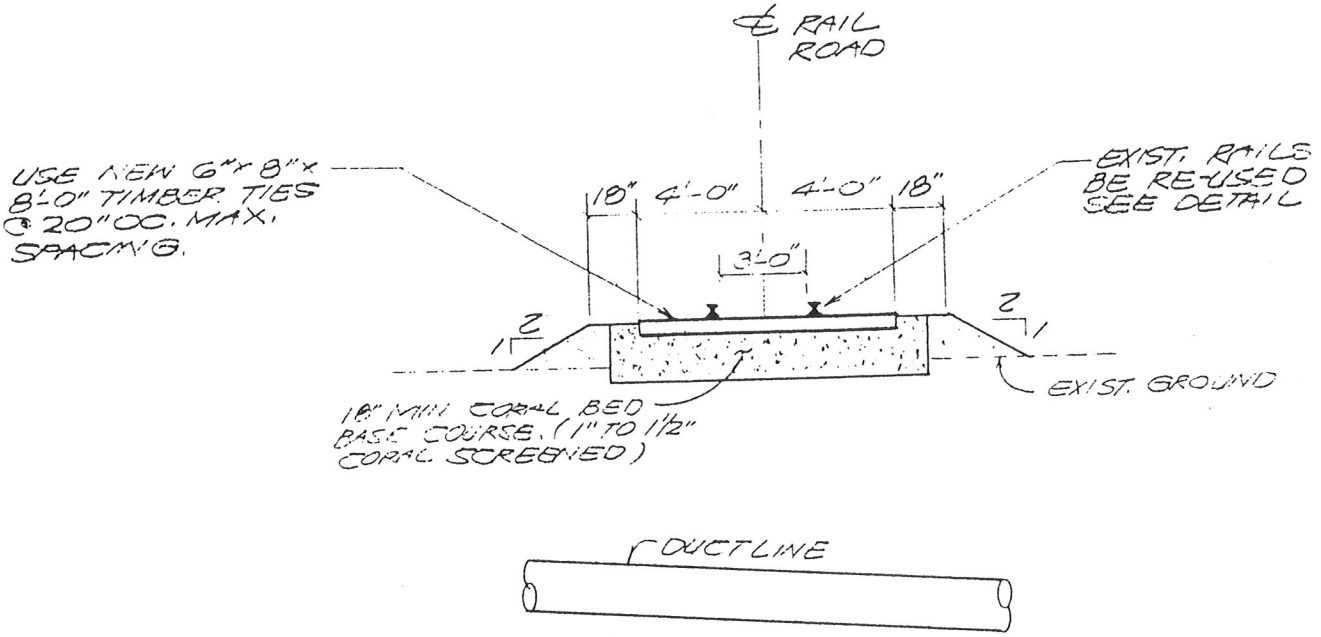
9. LENGTH OF ALL R.R. TRACK RAILS BETWEEN SPLICES = 33'-0"±.

10. RAILS MUST BE MACHINE CUT. (NOTE: RAILS CUT WITH TORCH WILL NOT BE ACCEPTABLE.)

11. EXISTING R.R. TRACK AND SPLICES TO BE REMOVED FOR NEW CONSTRUCTION WORK AND REPLACED. REUSE EXISTING RAILS AND SPLICES, EXCEPT FURNISH NEW BOLTS, NUTS AND WASHERS FOR SPLICES. NEW BOLTS SHALL BE THE SAME SIZE AS THE EXISTING BOLTS.

12. ONE WEEK PRIOR TO STARTING WORK ON THE RAILROAD TRACK, CONTACT ~~ANDY FOULDS OF~~ THE HAWAIIAN RAILWAY SOCIETY AT ~~537-8746~~ 681546. WORK ON THE RAILROAD TRACK SHALL BE COORDINATED WITH AND APPROVED BY THE HAWAIIAN RAILWAY SOCIETY, P.O. BOX 1208, EWA STATION, EWA BEACH, HAWAII 96706.

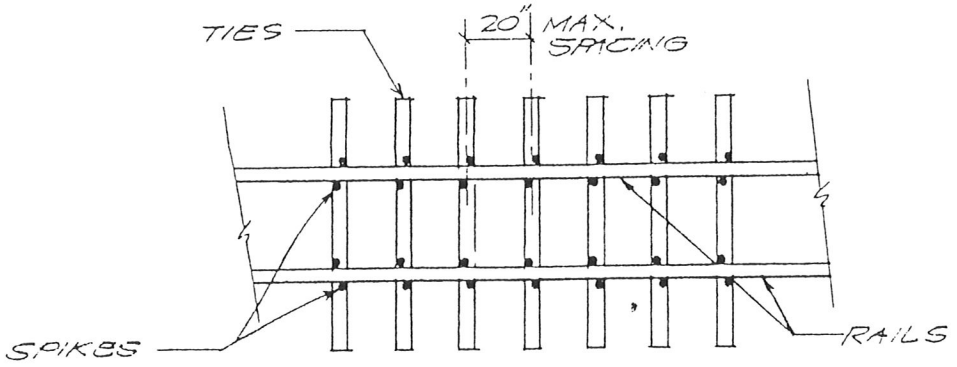
13. CONTRACTOR SHALL NOTIFY STATE OF HAWAII DEPARTMENT OF LAND AND NATURAL RESOURCES (ATTN: STATE HISTORIC PRESERVATION DIVISION) AND DOT HIGHWAYS DIVISION (0AHU DISTRICT OFFICE, TELEPHONE NO. 831-6712), PRIOR TO COMPLETION OF THIS PROJECT, SO THAT A FINAL INSPECTION CAN BE CONDUCTED TO VERIFY SUCCESSFUL REINSTALLATION OF TRACKS.



ELEVATION

RECONSTRUCTION OF R.R. TRACK

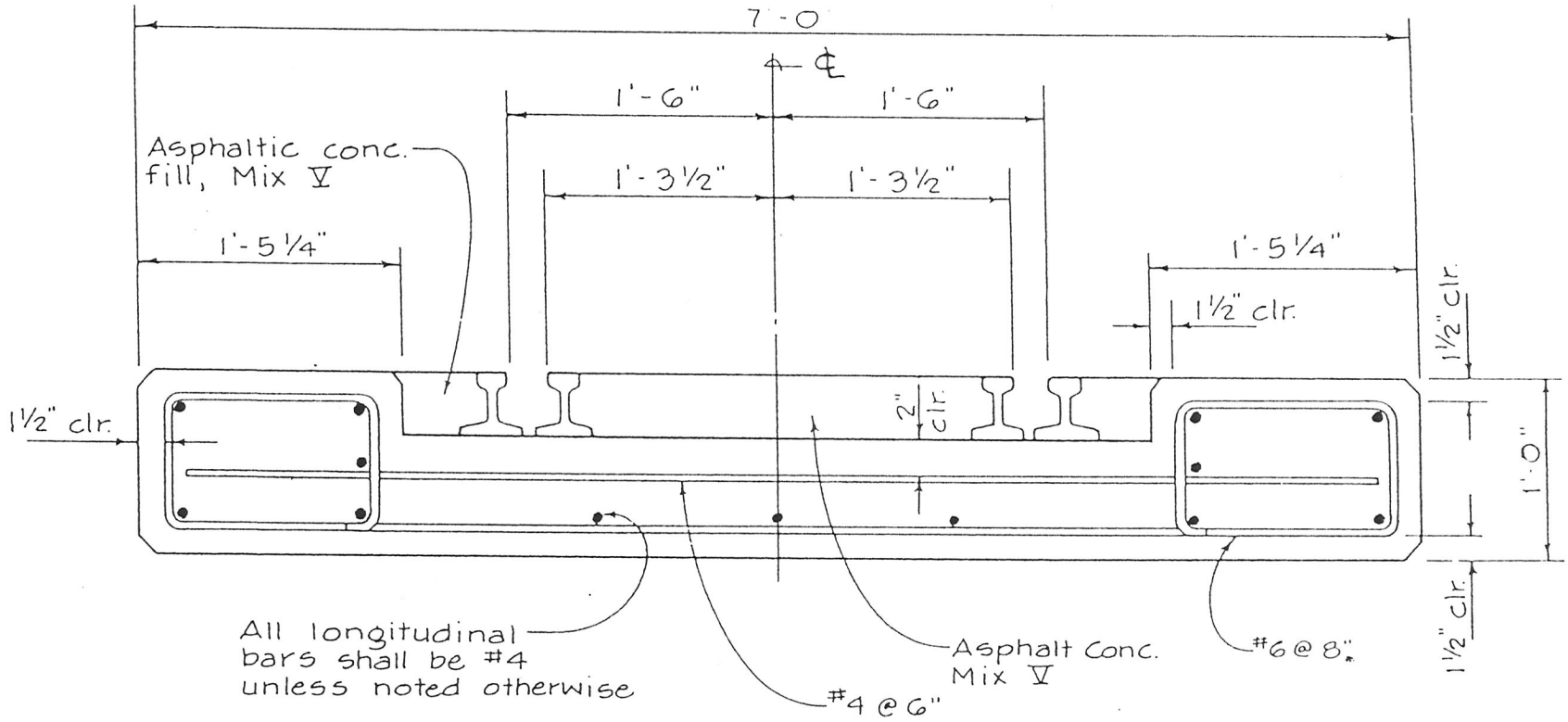
NOT TO SCALE



PLAN

SPIKING PATTERN DIAGRAM

NOT TO SCALE



NOTE:

1. All concrete shall be precast. $f_c' = 5000$ psi
2. All reinforcing steel shall be grade 60.

REINFORCED CONCRETE CROSSING UNIT

Scale: 1" = 1'-0"

BASE COURSE

2 / C-2 PRECAST CONCRETE CROSSING UNIT DETAIL

NOT TO SCALE

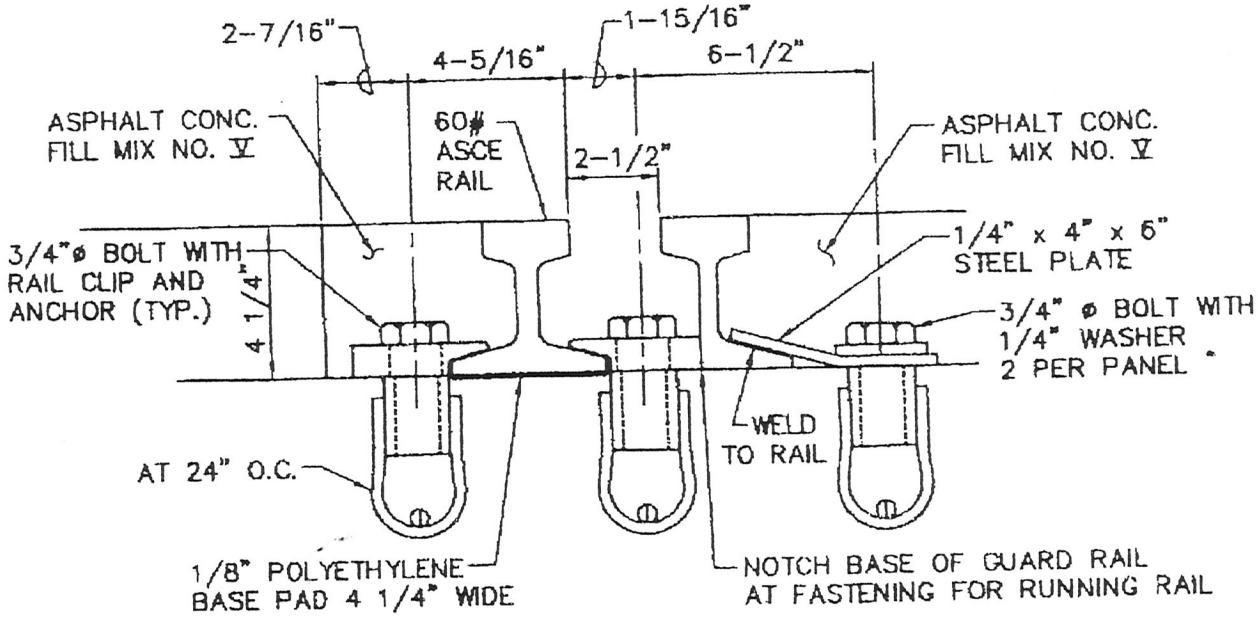
NOTES:

1. ALL CONCRETE SHALL BE PRE-CAST, f'c=5,000 psi.
2. PRECAST SECTIONS SHALL HAVE A LENGTH OF 8'-0", MAX.
3. ALL REINFORCING STEEL SHALL BE GRADE 60.
4. ALL REINFORCING CLEARANCES FROM CONCRETE EDGES SHALL BE 1-1/2", UNLESS OTHERWISE NOTED.

TOTAL P.03

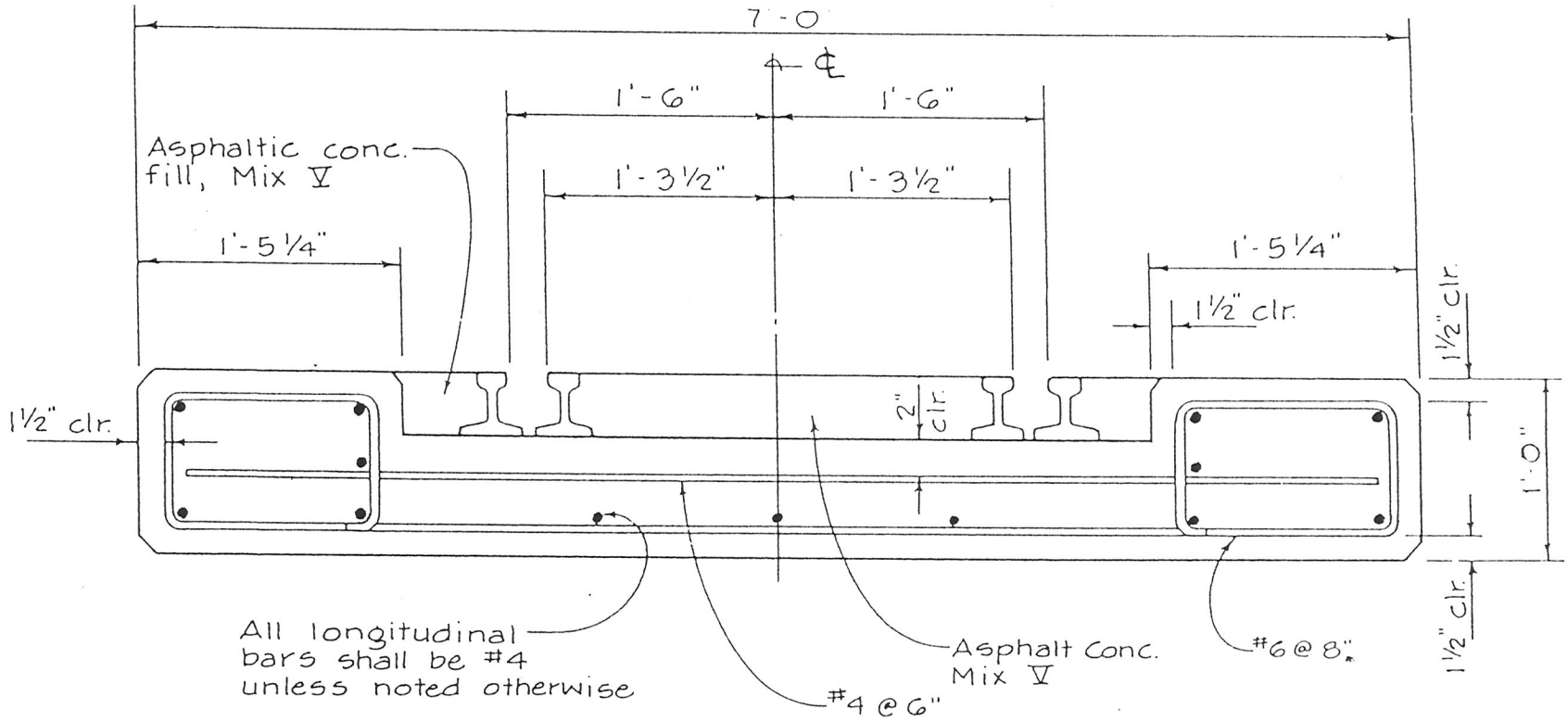
NOTE:

POLYETHYLENE BASE PADS FOR RAIL SHALL CONFORM TO ASTM DESIGNATION D1248, TYPE III CLASS C, GRADE 5 FOR HIGH DENSITY POLYETHYLENE PLASTIC WITH A DUROMETER HARDNESS OF 60 TO 65 D. THE HARDNESS SHALL BE STABLE BETWEEN PLUS 140 DEGREES F AND MINUS 40 DEGREES F.



3 / C-2 DETAIL AT RAIL CLIP

SCALE 3" = 1'-0"



NOTE:

1. All concrete shall be precast. $f_c' = 5000$ psi
2. All reinforcing steel shall be grade 60.

REINFORCED CONCRETE CROSSING UNIT

Scale: 1" = 1'-0"

Dear Rachel Adams,

This is information I dug up. The first sheet ~~is from~~ current Kalaeloa Boulevard plans. Im not sure how these notes were developed but first appeared during the first FT Weaver Rd. widening in the 1980's.

Ben Schlapak is our in house Civil Engineer. He can be reached at 836-6533.

We would like to change the lines that mention reusing the old rail. Any questions call me.

Aloha

Robert

This is from current Kalaeloa Boulevard Plans by R.M. Towill

RAILROAD NOTES FOR WORK WITHIN THE STATE'S 40 FOOT RAILROAD RIGHT-OF-WAY

April 2009

1. CONSTRUCTION METHOD AND MATERIAL SHALL CONFORM TO THE CURRENT EDITION OF THE AMERICAN RAILWAY ENGINEERING ASSOCIATION (A.R.E.A.) MANUAL FOR RAILWAY ENGINEERING AND STATE OF HAWAII HIGHWAY DIVISION "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION."

2. EXISTING RAILROAD BED SHALL BE REMOVED FOR NEW CONSTRUCTION WORK AND REPLACED.

3. EXISTING RAILROAD TRACK AND SPLICES SHALL BE REMOVED FOR NEW CONSTRUCTION WORK AND REPLACED. REUSE EXISTING RAILS AND SPLICES, EXCEPT FURNISH NEW BOLTS, NUTS AND WASHERS FOR SPLICES. NEW BOLTS SHALL BE THE SAME SIZE AS THE EXISTING BOLTS.

4. EXISTING TRACK RAILS SHALL BE REUSED. THE CONTRACTOR SHALL TAKE EXTREME CARE WHILE REMOVING, STORING AND REPLACING THE RAILS. ANY DAMAGE TO THE RAILS SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR, AND THE CONTRACTOR SHALL REPLACE THE DAMAGED RAILS AT HIS OWN EXPENSE.

5. BALLAST SHALL BE 1-INCH TO 1-1/2-INCH CORAL SCREENED.

6. CROSS TIES SHALL BE 6" X 8" X 8'-0" OR 6" X 8" X 6'-0" FOR NARROW GAUGE (3 FOOT) TRACK, HEART DOUGLAS FIR OR SOUTHERN WHITE PINE. ALL TIES SHALL BE FREE FROM ANY DEFECTS THAT MAY IMPAIR THEIR STRENGTH OR DURABILITY AS CROSS TIES, SUCH AS DECAY, LARGE SPLITS, LARGE SNAKES, LARGE OR NUMEROUS HOLES OR KNOTS, GRAIN WITH SLANT GREATER THAN 1 IN 15.

7. CROSS TIES SHALL BE TREATED WITH A CREOSOTE-COAL TAR SOLUTION CONFORMING TO A.R.E.A. MANUAL.

8. EXISTING TIES, IF FOUND IN USABLE CONDITION, MAY BE REUSED. ANY EXISTING SPIKE HOLES MUST BE PLUGGED WITH CEDAR OR REDWOOD PLUGS PRIOR TO REUSE, OTHERWISE NEW TIES MUST BE SUPPLIED.

9. RAIL SPLICE BOLTS, NUTS AND WASHERS SHALL CONFORM TO THE A.R.E.A. MANUAL FOR RAILWAY ENGINEERING.

10. STEEL CUT TRACK SPIKES SHALL BE 9/16" REINFORCED THROAT TRACK SPIKE 5-1/2" UNDERHEAD. THERE SHALL BE FOUR (4) SPIKES PER TIED PLACED INSIDE AND OUTSIDE OF RAIL STAGGERED.

11. LENGTH OF ALL RAILROAD TRACK RAILS BETWEEN SPLICES IS 33'-0" (AND VARIES).

12. RAILS MUST BE MACHINE CUT. (NOTE: RAILS CUT WITH TORCH WILL NOT BE ACCEPTABLE.)

13. ONE WEEK PRIOR TO STARTING WORK ON THE RAILROAD TRACK, CONTACT BEN SCHLAPAK OR LARRY HOWARD AT THE HAWAIIAN RAILWAY SOCIETY, 681-5461. WORK ON THE RAILROAD BED SHALL BE COORDINATED WITH AND APPROVED BY THE HAWAIIAN RAILWAY SOCIETY, P.O. BOX 60369, EWA STATION, EWA BEACH, HAWAII 96706.

14. CONSTRUCTION OF RAILROAD CROSSING SHALL BE PERFORMED DURING WEEKDAYS (MONDAY THRU FRIDAY). TRACKS SHALL BE REPLACED FOR HRS USE DURING THE WEEKEND (SATURDAYS AND SUNDAYS). CONTRACTOR SHALL PROVIDE TEMPORARY RAILROAD TRACK SUPPORT IN ACCORDANCE WITH THE ABOVE REQUIREMENTS.

15. CONTRACTOR SHALL NOTIFY STATE OF HAWAII DEPARTMENT OF LAND AND NATURAL RESOURCES (ATTN: STATE HISTORIC PRESERVATION DIVISION) AND DOT HIGHWAYS DIVISION (OAHU DISTRICT OFFICE, TELEPHONE NO. 831-6712), ONE WEEK PRIOR TO THE START OF THIS PROJECT, A FINAL INSPECTION SHALL BE CONDUCTED WITH DLNR, DOT HIGHWAYS AND HAWAIIAN RAILWAY SOCIETY TO VERIFY SUCCESSFUL REINSTALLATION OF TRACKS.

16. CHEVRON OIL LINES ARE KNOWN TO BE LOCATED NEAR OR WITHIN THE STATE'S EXISTING 40-FOOT RAILROAD RIGHT-OF-WAY. CONTRACTOR TO CONTACT CHEVRON USA ONE WEEK PRIOR TO EXCAVATION. SEE CHEVRON NOTES FOR CONTACT PERSON.

17. CONTRACTOR SHALL STAKEOUT PORTIONS OF THE STATE'S EXISTING 40-FOOT RAILROAD RIGHT-OF-WAY AT THE PROPOSED INTERSECTION PRIOR TO COMMENCEMENT OF ANY NEW WORK.

18. RAILROAD SIGNS AND AUTOMATED CROSSING GATES, WITHIN THE KALAELOA BOULEVARD RIGHT-OF-WAY SHALL BE OWNED AND MAINTAINED BY THE DEPARTMENT OF TRANSPORTATION SERVICES.

American Railway Engineering Association (AREA)

50 F Street, N.W.
Washington, DC 20001

Tel. (202) 639-2190

During the latter half of the 19th century, railroads in North America underwent rapid growth and development. Officers of engineering and maintenance-of-way departments were faced with

complex questions and needs for improved materials, designs, and procedures. On March 30, 1899, the American Railway Engineering Association (AREA) was formed. The purpose of the AREA was to study and report on problems in the maintenance of way and structures in railroading as practiced in North America.

The AREA headquarters were located in Chicago from its founding until 1979. The association then moved its headquarters to Washington, DC, to have a better liaison with the Association of American Railroads, the Federal Railroad Administration, and other related institutions. The need for closer contact with the U.S. federal government came with the advent of the track safety standards in 1971.

From its inception, the AREA has dealt with technical challenges through committees. Currently there are 23 different committees. The result of a committee's work and study often becomes part of the AREA *Manual for Railway Engineering.* This manual is revised annually to make the latest in recommended practice information for railway engineering available to all interested parties.

As stated in its constitution, the purpose of the AREA as it continues into the 21st century is "the advancement of knowledge pertaining to the scientific and economic location, construction, operation and maintenance of railways."

Membership

The basic qualifications for membership are five years of experience in the profession of maintaining, operating, constructing, or locating railways. Graduation from a recognized college or university with a degree in engineering is being taken as the equivalent to three years of experience. Today, the AREA's membership is over 3800 members.

Publications

AREA *Manual for Railway Engineering.* This manual, comprising the work of the association's committees, is revised annually to make the latest in recommended practice information for railway engineering available to all interested parties.

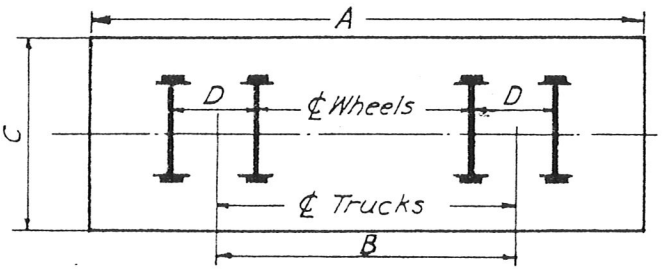
Portfolio of Trackwork Plans is also compiled and updated.

The AREA publishes a bulletin five times a year and has a monthly section in *Railway Track & Structures Magazine.*

RAILROADS — GENERAL

TABLE A – SPUR AND SIDING DESIGN DATA

	RECOMMENDED MAXIMUM DEGREE OF CURVE
HORIZONTAL CURVES See pp. 12-26 to 12-33, 14-06 and 14-07 for curve data functions of 1-degree curve, etc.	*For Steam Locomotives* Recommended general practice up to 14° or 16° Road Engines 18° Switch engines 23° *For Diesel-Electric Locomotives* Switching engines including cars 100'-150' radius; 60° to 39° Road switching engines 1750 hp. 150'-200' radius; 39° to 23° "Lead" unit road 2400 hp. 274' raidus 21° *For Cars* Freight cars (normal) Maximum 30°, (special) 50° Passenger cars (normal) maximum 14°, (special) 50°
REVERSE CURVES	Provide a tangent distance between curve, preferably exceeding 100'.
SUPERELEVATION	Superelevation requirements on Table A, p. 14-05.
GRADES	Maximum for road engines : use 1½%. For Diesel-electric engines, use 2%. For unavoidable grades greater than these, consult the using railroad. Both steamers and Diesels, properly geared (mechanically, or electrically) for the service can and do operate on much steeper grades. On heavy trains, about 3% grades being the maximum for main-line service. Maximum 4% for siding (but undesirable).
VERTICAL CURVES	50' minimum length. Use 200' or preferably.
TURNOUTS Details of turnouts on Table A, p. 14-03.	If avoidable, do not locate turnouts on superelevated curves. Use #10 (minimum) turnouts in any main track. Turnouts in ladder tracks #8 (minimum). Turnouts in yards, or from spurs or sidings used by a road engine to be generally #8's, by a switch engine #6 (minimum) only if conditions require. Long cars often uncouple or jump track on #5's. #10 and #11 turnouts are being used on many classification yards now being built.
OVERHEAD AND SIDE CLEARANCES	For diagrams of clearances, see Fig. A p. 14-02. Not less than 16'-0" is necessary to clear tops of highest cars and locomotives. A chart "Legal Requirements – Clearances," revised 12-1-57, published by American Railway Engineering Association, shows clearance laws, rules, or regulations of the states of the United States, including the District of Columbia and Canada.
TIE SPACING	Use 21" if road engines are to be used. 2'-0" maximum.
TIE PLATES	Use on curves and on creosoted ties and on all ties on heavy-service track.
TRACK GAGE	4'-8½" on tangents and curves up to 8°. Add ⅛" per 2° over 8° up to maximum of 4'-9¼".



DIAGRAMMATIC CAR PLAN

See table for dimensions.

SOME TYPICAL CAR DIMENSIONS (As per Diagram) *

Types of Cars	A	B	C	D	Extreme Height
1. PC – Passenger Coach	82'-5"	59'-6"	10'-0"	9'-0"	13'-6"
2. M & B – Mail & baggage	71'-2"	48'-7"	10'-0¼"	9'-0"	13'-6"
3. MC – Milk	50'-1½"	34'-7"	10'-1½"	8'-0"	13'-2"
4. ASB – All steel box	51'-9½"	40'-9½"	10'-7¼"	5'-6"	15'-1"
5. ASB – All steel box	42'-3¾"	31'-2¾"	9'-11⅝"	5'-6"	15'-5¼"
6. A – Steel auto box	41'-9½"	30'-9½"	10'-7¼"	5'-6"	5'-0⅞"
7. 70-H – 70-Ton hopper	40'-5"	30'-5"	10'-3¼"	5'-8"	11'-4¼"
8. CH – Covered hopper	35'-1⅛"	25'-1⅛"	10'-5"	5'-8"	12'-11 5/16"
9. Ta – 12,500-gal. tank (40'-0⅞" over tank heads – inside diameter of tanks)	43'-2"	32'-2½"	10'-2"	5'-6"	14'-1½"
10. HSG – High side gondola	68'-1"	32'-2½"	9'-1½"	5'-8"	7'-7"
11. ASF – All steel flat	54'-3"	43'-3"	10'-4"	5'-8"	5'-1¼"
12. ASF – All steel flat	42'-10½"	31'-10½"	10'-1¾"	5'-6"	5'-7¾"

FIG. B. CAR DIMENSIONS

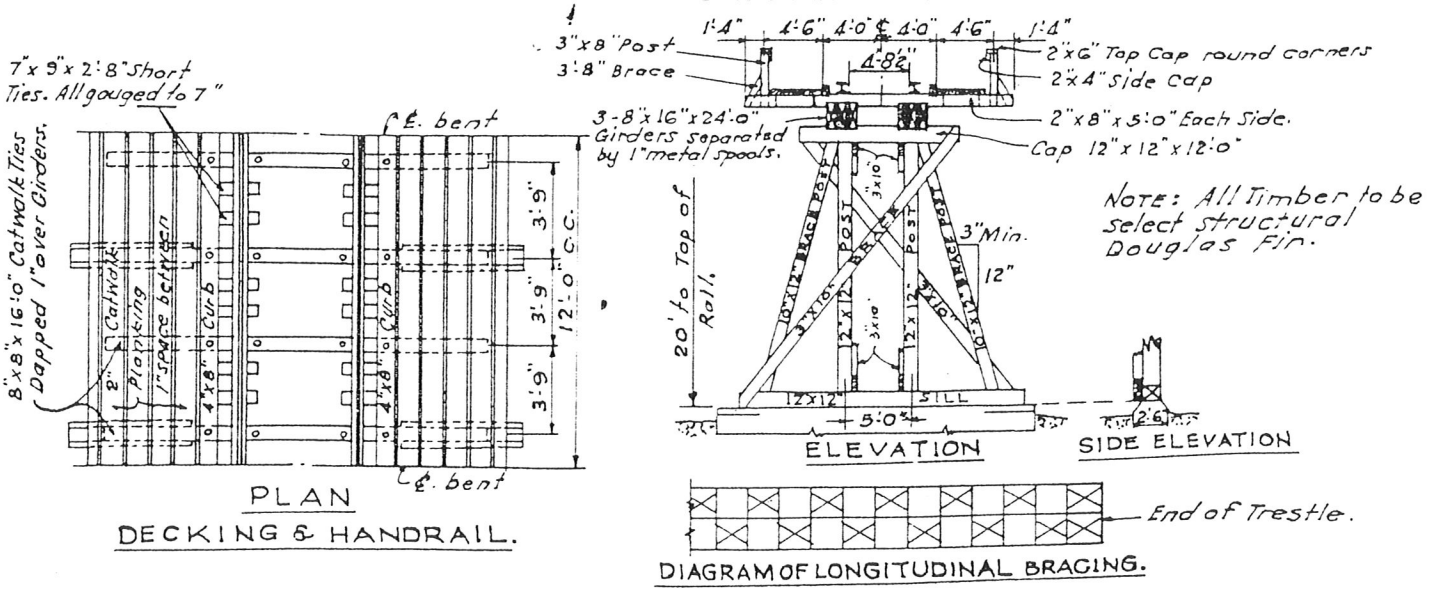
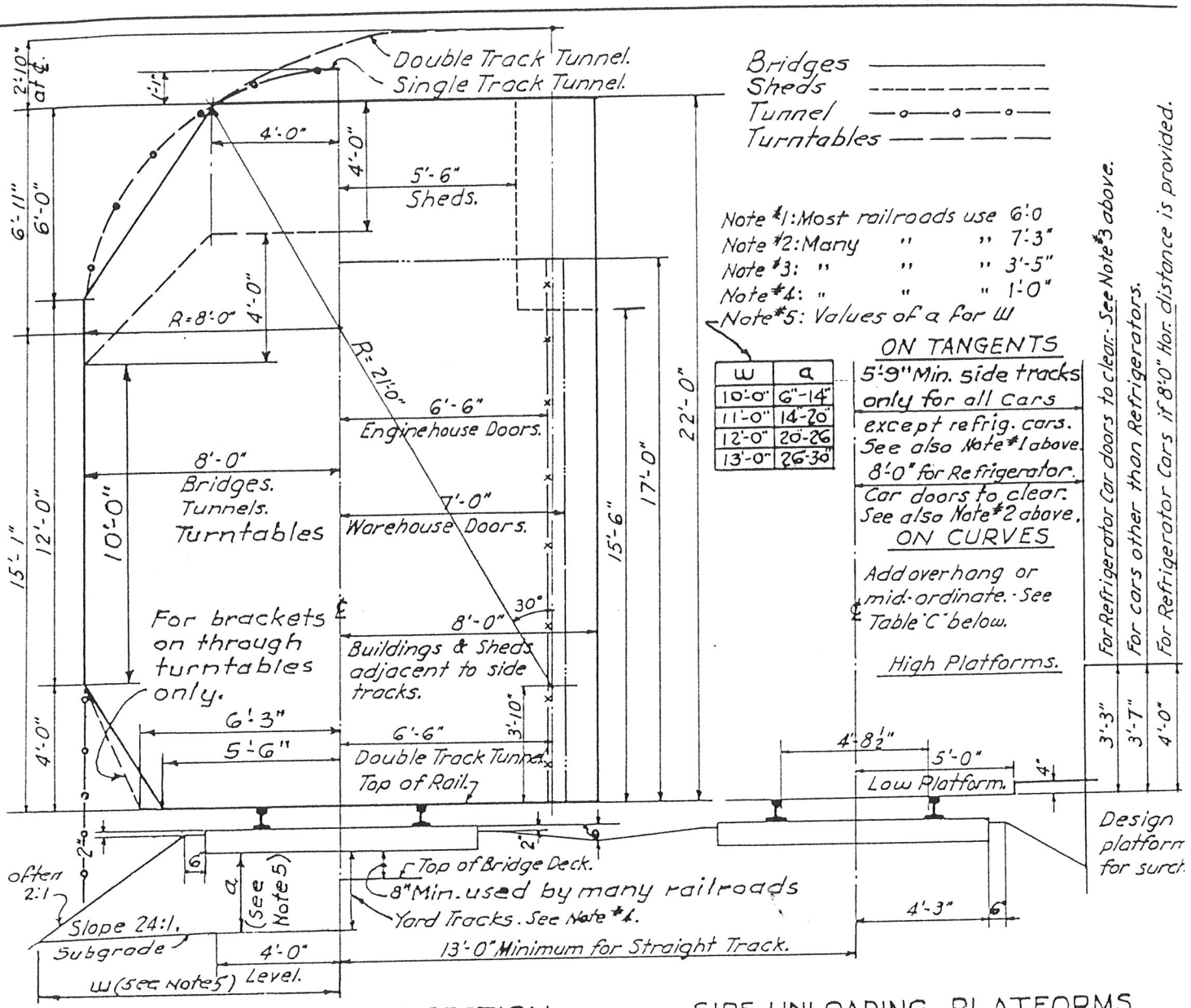


FIG. C. COAL TRESTLE DETAILS

RAILROADS – CLEARANCES



CLEARANCE & BALLAST SECTION. SIDE UNLOADING PLATFORMS.

FIG. A. TANGENT CLEARANCES.*

or curves as indicated in Table C

TABLE C – MIDDLE AND END ADDITIONAL "OVERHANGS" ON CURVES

Cars.		Curves 2°	5°	9°	13°	18°	23°	30°
1 PC – Passenger coach	M	0.158	0.395	0.711	1.029	1.426	1.824	2.385
	E	5.137	5.441	5.612	5.376	6.201	6.633	6.952
2 M & B – Mail & baggage	M	0.107	0.266	0.480	0.693	0.960	1.228	1.605
	E	5.124	5.295	5.517	5.737	6.008	6.274	6.635
3 MC – Milk	M	0.053	0.133	0.238	0.344	0.477	0.609	0.795
	E	5.119	5.207	5.314	5.422	5.556	5.735	5.369
4 ASB – All steel box	M	0.074	0.185	0.333	0.481	0.666	0.852	1.112
	E	5.345	5.408	5.491	5.573	5.672	5.759	5.900
	M	0.044	0.110	0.198	0.286	0.396	0.506	0.660

We recommend the 8'0" from centerline of track. This will give us 3.5' on either side of the engine which is the widest vehicle (9'). Our track is narrow (36") Gage.

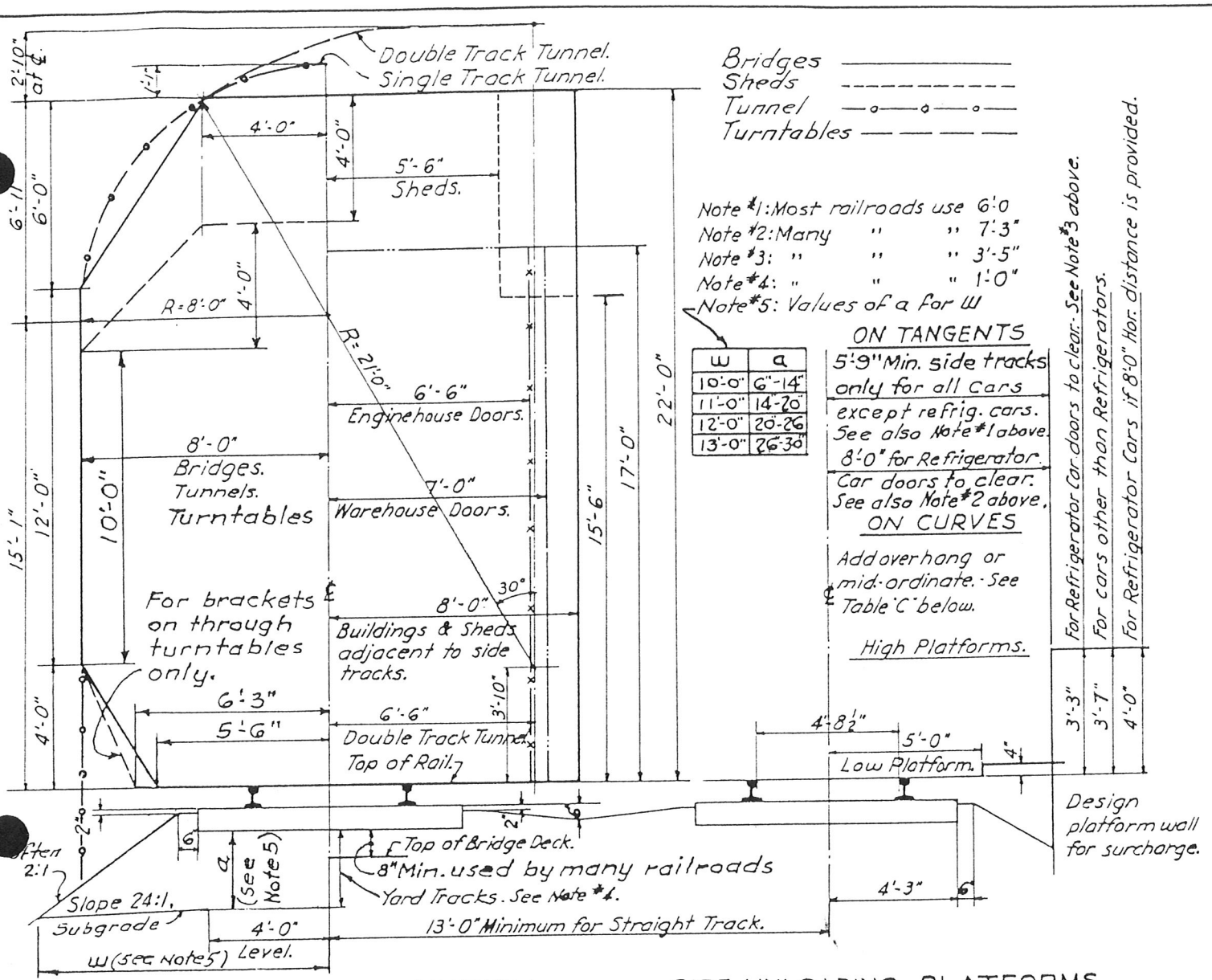
Post-it® Fax Note 7671	Date 28 MAY 98	# of pages ▶ 1
To Jenny Li	From Ben Schlapak	
Co./Dept. MEPAC	Co. HRS	
Phone # 529 7225	Phone # 8388821	
Fax # 524 0246	Fax # 8388751	

pls send draft EA to HRS

*All data in accord with American Railway Engineers Association (A.R.E.A.) recommendation.

DESIGN, STEYLE, 1960

RAILROADS — CLEARANCES



CLEARANCE & BALLAST SECTION. SIDE UNLOADING PLATFORMS.

FIG. A. TANGENT CLEARANCES.*

Note: Allow for curves as indicated in Table C

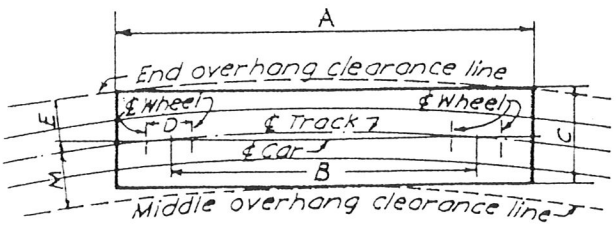


FIG. B - END & MIDDLE OVERHANG.

$$M = R - \sqrt{R^2 - \left[\frac{D^2}{4} + \frac{B^2}{4}\right]}$$

$$E = \sqrt{\left(R - M + \frac{C}{2}\right)^2 + \frac{A^2}{4}} - R$$

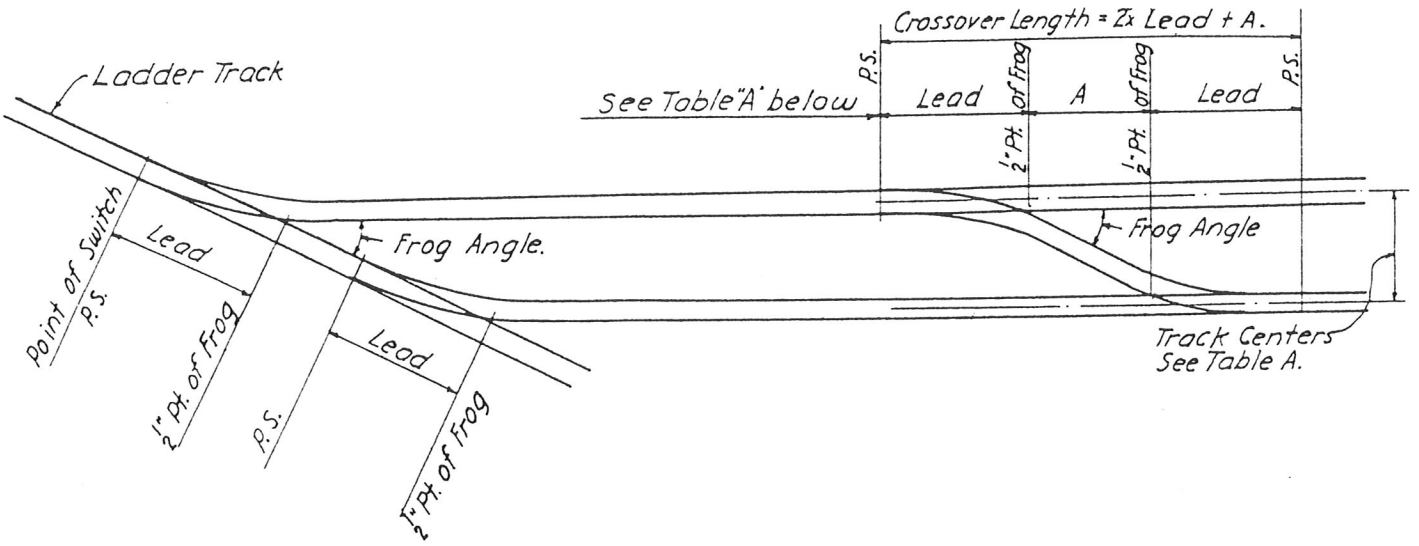
e 14' high car for tilt clearances.

TABLE C — MIDDLE AND END ADDITIONAL "OVERHANGS" ON CURVES

Cars		Curves						
		2°	5°	9°	13°	18°	23°	30°
1 PC — Passenger coach	M	0.158	0.395	0.711	1.029	1.426	1.824	2.385
	E	5.137	5.441	5.612	5.876	6.201	6.633	6.952
2 M & B — Mail & baggage	M	0.107	0.266	0.480	0.693	0.960	1.228	1.605
	E	5.124	5.295	5.517	5.737	6.008	6.274	6.635
3 MC — Milk	M	0.053	0.133	0.238	0.344	0.477	0.609	0.795
	E	5.119	5.207	5.314	5.422	5.556	5.785	5.869
4 ASB — All steel box	M	0.074	0.185	0.333	0.481	0.666	0.852	1.112
	E	5.345	5.408	5.491	5.573	5.672	5.769	5.900
5 ASB — All steel box	M	0.044	0.110	0.198	0.286	0.396	0.506	0.660
	E	5.018	5.068	5.135	5.200	5.281	5.359	5.466
6 SAB — Steel auto box	M	0.043	0.107	0.192	0.278	0.384	0.491	0.641
	E	5.335	5.385	5.450	5.514	5.593	5.669	5.774
7 70-H — 70 Ton hopper	M	0.042	0.105	0.188	0.272	0.377	0.481	0.628
	E	5.165	5.208	5.266	5.322	5.390	5.458	5.549
8 CH — Covered hopper	M	0.029	0.073	0.131	0.188	0.261	0.333	0.435
	E	5.233	5.269	5.318	5.367	5.425	5.482	5.560
9 Ta — Tank car	M	0.047	0.117	0.210	0.303	0.420	0.536	0.701
	E	5.117	5.168	5.236	5.303	5.383	5.464	5.571
10 HSG — High side gondola	M	0.140	0.350	0.628	0.911	1.262	1.614	2.110
	E	4.624	4.716	4.838	4.953	5.097	5.257	5.424
11 ASF — All steel flat	M	0.083	0.208	0.374	0.540	0.748	0.957	1.249
	E	5.212	5.278	5.366	5.352	5.556	5.657	5.796
12 ASF — All steel flat	M	0.046	0.115	0.206	0.297	0.412	0.526	0.686
	E	5.107	5.157	5.225	5.291	5.371	5.451	5.559

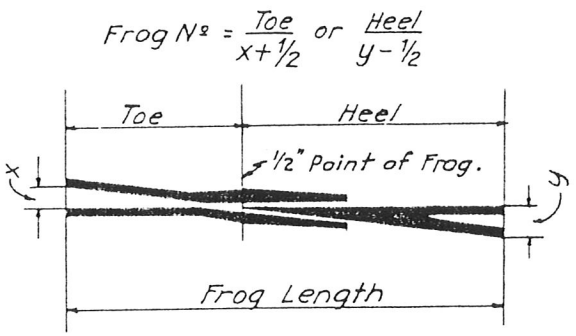
*All data in accord with American Railway Engineers Association (A.R.E.A.) recommendation.

RAILROADS – TURNOUTS & CROSSOVERS

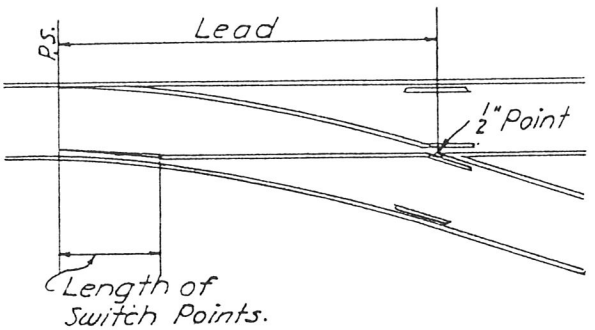


TURNOUT

CROSSOVER



FROG DETAIL



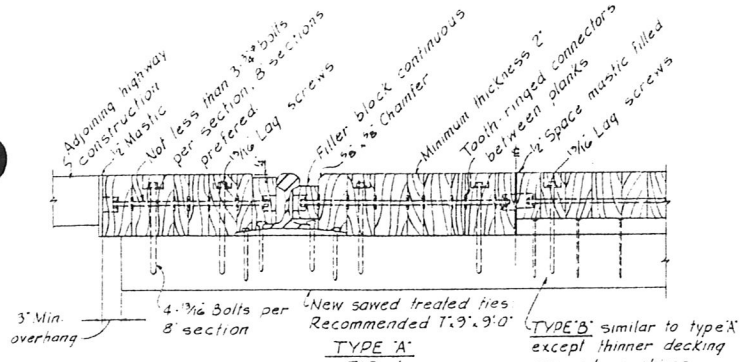
SPLIT-SWITCH TURNOUT

TABLE A – FROGS, SWITCHES AND CROSSOVERS

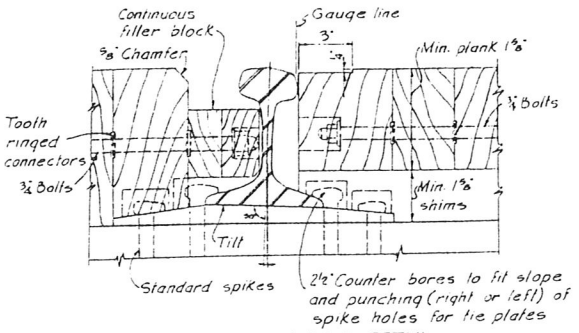
Straight Switch Turnout		Frog		Curved Switch Turnout		Crossovers Distances A Between ℄ of Parallel Tracks		Q†
Lead	Switch Point	No.	Angle	Switch Point	Lead	13'-0"	14'0"	
42'-6½"	11'-0"	5	11° 25' 16"	13'-0"	46'-6½"	16'-10 13/16"	21'-10¼"	0'-5 15/16"
47'-6"	11'-0"	6	9° 31' 39"	13'-0"	49'-9"	20'-5½"	26'-5"	0'-7⅛"
62'-1"	16'-6"	7	8° 10' 16"	13'-0"	54'-8½"	24'-0⅜"	30'-11 5/16"	0'-8⅜"
68'-0"	16'-6"	8	7° 09' 10"	13'-0"	58'-11½"	27'-7⅛"	35'-6¾"	0'-9 9/16"
72'-3½"	16'-6"	9	6° 21' 35"	19'-6"	74'-1¼"	31'-1⅝"	40'-1 5/16"	0'-10¾"
78'-9"	16'-6"	10	5° 43' 29"	19'-6"	78'-11"	34'-8½"	44'-7 15/16"	0'-11 15/16"
91'-10¼"	22'-0"	11	5° 12' 18"	19'-6"	83'-6"	38'-2½"	49'-2¼"	1'-1 3/16"
96'-8"	22'-0"	12	4° 46' 19"	19'-6"	87'-3½"	41'-8¾"	53'-8½"	1'-2⅜"
107'-0¾"	22'-0"	14	4° 05' 27"	26'-6"	108'-7½"	48'-9¼"	62'-9 1/16"	1'-4 13/16"
126'-4½"	30'-0"	15	3° 49' 06"	26'-6"	113'-5"	52'-3 7/16"	67'-2 5/8"	1'-6"
131'-4"	30'-0"	16	3° 34' 47"	26'-6"	118'-5"	55'-9⅜"	71'-11 3/16"	1'-7 3/16"
140'-11½"	30'-0"	18	3° 10' 56"	39'-0"	147'-0½"	62'-9⅞"	80'-9¾"	1'-9 9/16"
151'-11½"	30'-0"	20	2° 51' 21"	39'-0"	156'-0½"	69'-10"	89'-9⅞"	2'-0"
		20		39'-0"	156'-0½"	69'-10"	89'-9⅞"	2'-0"
		20		45'-0"	160'-9 1/10"	69'-9 15/16"	89'-9 3/16"	2'-0"
		20		30'-0"	153'-5½"	–	89'-9 3/16"	2'-0"
		30		45'-0"	211'-8¾"	–	–	–

† Figures in column Q give the amounts to add to tabular figures for every tenth of a foot increase in distance between tracks.

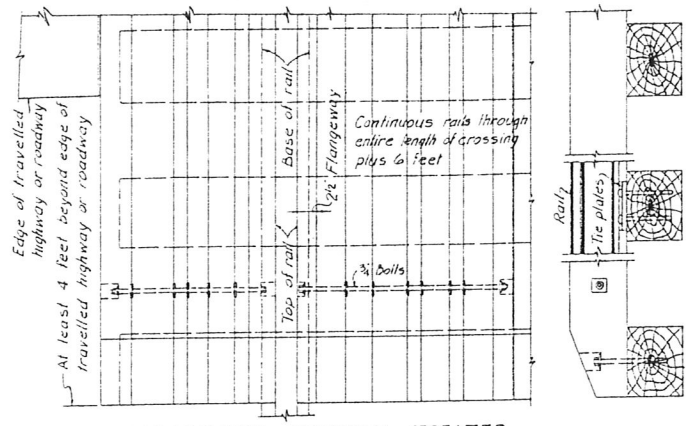
RAILROADS — GRADE CROSSINGS



TYPE 'A'
FIG. A



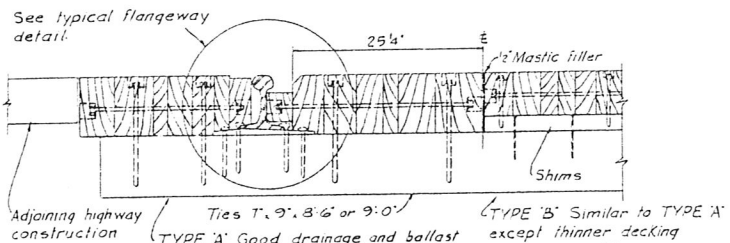
TYPICAL FLANGEWAY DETAIL
FOR FIG. A, B, C TYPE A & B.



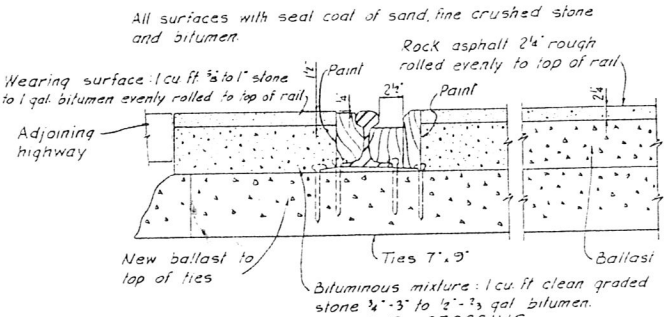
PREFABRICATED SECTIONAL TREATED
TIMBER CROSSING

TABLE GRADE CROSSING CLASSIFICATION						
CLASS OF HIGHWAY TRAFFIC	R.R. SPEED	BITUMINOUS	WOOD PLANK	PREFABRICATED TIMBER	PRECAST CONCRETE	MONOLITHIC CONCRETE
NUMBER		1	2	3	4	5
IMPROVED HEAVY	HS	✓		✓	✓	
	LS	✓		✓	✓	✓
IMPROVED MEDIUM	HS	✓		✓	✓	
	LS	✓		✓	✓	✓
IMPROVED LIGHT	HS		✓	✓	✓	
	LS		✓	✓	✓	✓
UNIMPROVED LIGHT	HS	✓	✓			
	LS	✓	✓			

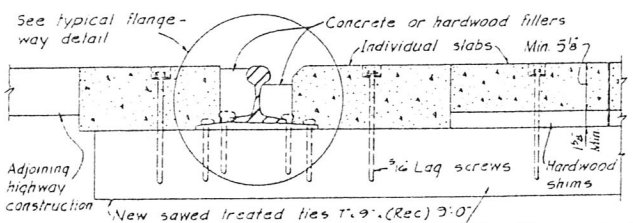
Numbers 2, 3 & 4 each comprise Types A & B, and Nos. 1 & 5 are single. All are drawn from AREA's specifications and charted to illustrate AREA's recommendations for their use on different type crossings. H.S. = High speed; L.S. = Low speeds.



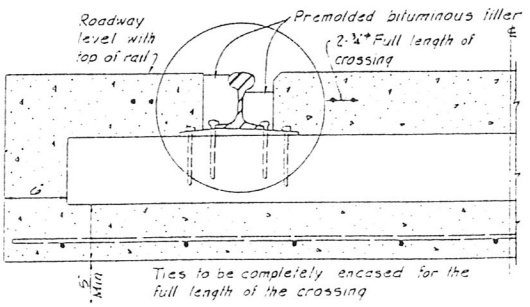
WOOD PLANK CROSSING
FIG. B



BITUMINOUS CROSSING
FIG. C



PRECAST CONCRETE CROSSING



Track to be supported on brick, stone, etc.
Track to be carefully levelled.

MONOLITHIC CONCRETE CROSSING

LOADING AND DESIGN BASIS FOR PRECAST CONCRETE CROSSING

AA of SHO. H-15 Loading for truck train with max. axle load @ 24,000#, or with H-20 similarly loaded @ 32,000#. Units designed for concentrated wheel loads of ½ of said axle loads, placed for max. stresses in the direction of traffic equal to width of slab with max. of 17" - no distribution perpendicular to traffic, with 50% impact in both moment and shear at stresses not greater than ⅔ of the elastic limit for reinf., and ½ of the ultimate strength of concrete @ 28 days. Slabs supported on 3 or more ties shall be designed as above, with one intermediate tie not in bearing. Covering of reinf. shall be not less than 1". Clearances shall be provided for tieplates and spike heads.

U

To: David Yamamoto, Sato + Assoc. 942 2027 - Fax

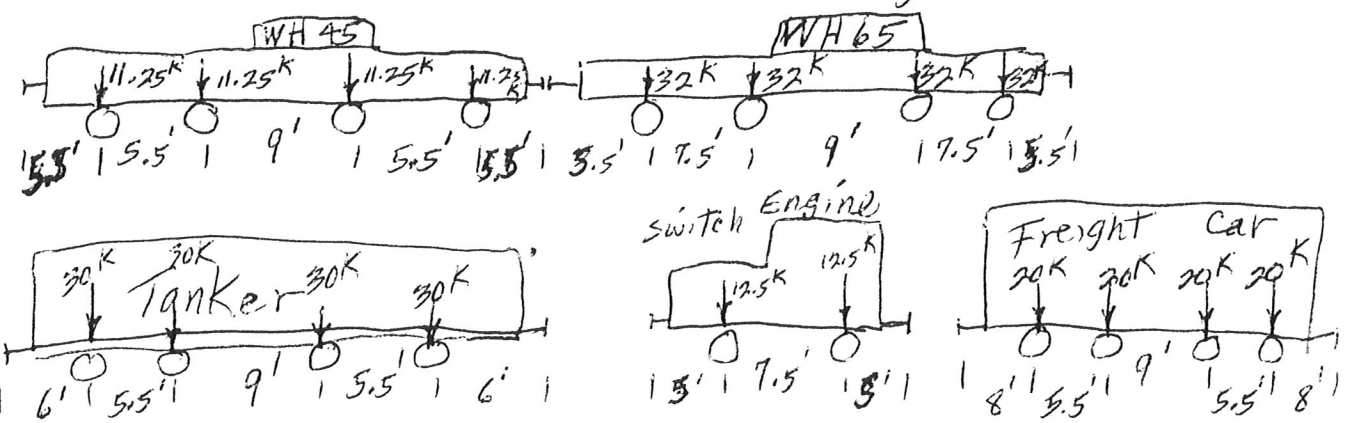
Subject: Kaloé Stream RR + Bikeway Bridge

1. Attached find extract from FRA standards — We operate only class 1 Track and would never get beyond class 2 so 30 mph is recommended for design speed.

2. I checked the site. The fence shown in The Towill drawing (makai) is gone but the concrete pad is still there about 16 paces west of HECO pole #182. Yes there is a high radius curve and the rails are slightly curved. You can plan on using them again. The Golf Course has a deep hole makai already.

3. Cooper E-30 loadings are 0.6(E-50) and are 15 Ton axle loadings from two locomotives plus a uniform loading of 3000 #/ft.. 5' Axle spacing.

Our maximum load: Axle loadings



Ben Schlapak, HRS, 15 May 98

WORK WITHIN 40-FOOT WIDE RAILROAD RIGHT-OF-WAY NOTES

1. CONSTRUCTION METHOD AND MATERIAL SHALL CONFORM TO THE CURRENT EDITION OF THE AMERICAN RAILWAY ENGINEERING ASSOCIATION (A.R.E.A.) MANUAL FOR RAILWAY ENGINEERING AND STATE OF HAWAII DIVISION "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION".

2. BALLAST SHALL BE 1 TO 1-1/2 INCH CORAL SCREENED.

3. CROSS TIES SHALL BE 6" x 8" x 8'-0" OR 6" x 8" x 6'-0" (DXWSL) "HEART" DOUGLAS FIR. ALL TIES SHALL BE FREE FROM ANY DEFECTS THAT MAY IMPAIR THEIR STRENGTH OR DURABILITY AS CROSS TIES, SUCH AS DECAY, LARGE SPLITS, LARGE SNAKES, LARGE OR NUMEROUS HOLES OR KNOTS, GRAIN WITH SLANT GREATER THAN 1-IN-15. ANY EXISTING SPIKE HOLES MUST BE PLUGGED WITH CEDAR OR REDWOOD PLUGS.

4. EXISTING TRACK RAILS SHALL BE REUSED. THE CONTRACTOR SHALL TAKE EXTREME CARE WHILE REMOVING, STORING AND REPLACING THE RAILS. ANY DAMAGE TO THE RAILS SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR, AND THE CONTRACTOR SHALL REPLACE THE DAMAGED RAILS AT HIS OWN EXPENSE.

5. RAIL SPLICE BOLTS, NUTS AND WASHERS SHALL CONFOkM TO THE A.R.E.A. MANUAL FOR RAILWAY ENGINEERING.

6. STEEL CUT TRACK SPIKES SHALL BE 9/16" REINFORCED THROAT TRACK SPIKE, 5-1/2" UNDERHEAD. THERE SHALL BE FOUR (4) SPIKES PER TIE PLACED INSIDE AND OUTSIDE OF RAIL, STAGGERED.

7. CROSS TIES SHALL BE TREATED WITH CRESOTE-COAL TAR SOLUTION CONFORMING TO A.R.E.A. MANUAL.

8. LENGTH OF ALL R.R. TRACK RAILS BETWEEN SPLICES = 33'-0"±.

9. EXISTING R.R. TRACK AND SPLICES TO BE REMOVED FOR NEW CONSTRUCTION WORK AND REPLACED. REUSE EXISTING RAILS AND SPLICES, EXCEPT FURNISH NEW BOLTS, NUTS AND WASHERS FOR SPLICES. NEW BOLTS SHALL BE THE SAME SIZE AS THE EXISTING BOLTS.

10. RAILS MUST BE MACHINE CUT.
(NOTE: RAILS CUT WITH TORCH WILL NOT BE ACCEPTED.)

11. ONE WEEK PRIOR TO STARTING WORK ON THE RAILROAD TRACK, CONTACT ~~WALTER C. GREY, JR. OF~~ THE HAWAIIAN RAILWAY SOCIETY, AT ~~537-8156~~ 6815461 WORK ON THE RAILROAD TRACK SHALL BE COORDINATED AND APPROVED BY THE HAWAIIAN RAILWAY SOCIETY, P. O. BOX 1208, EWA STATION, EWA BEACH, HAWAII 96706.

12. EXISTING RAILROAD TRACKS SHALL BE AT THE ORIGINAL GRADE AND LOCATION.

13. EXISTING TRACK BEDDING SHALL BE REMOVED FOR NEW CONSTRUCTION WORK AND REPLACED.

14. CHEVRON OIL LINES ARE KNOWN TO BE LOCATED WITHIN RAILROAD RIGHT-OF-WAY. THE CONTRACTOR TO CONTACT CHEVRON U.S.A., ONE WEEK PRIOR TO EXCAVATION. SEE CHEVRON NOTES FOR CONTACT PERSON.

15. THE CONTRACTOR SHALL STAKE OUT PORTIONS OF THE 40-FOOT RAILROAD RIGHT-OF-WAY NEAR THE PROPOSED UTILITY CONNECTIONS PRIOR TO COMMENCEMENT OF ANY NEW WORK.

16. THE CONTRACTOR SHALL REPLACE ANY RAILROAD TIES IN NON-USABLE CONDITION.

17. THE CONTRACTOR SHALL CLEAN THE FLANGEWAY AT ALL EXISTING ROAD CROSSINGS AND GOLF CART PATH CROSSINGS.

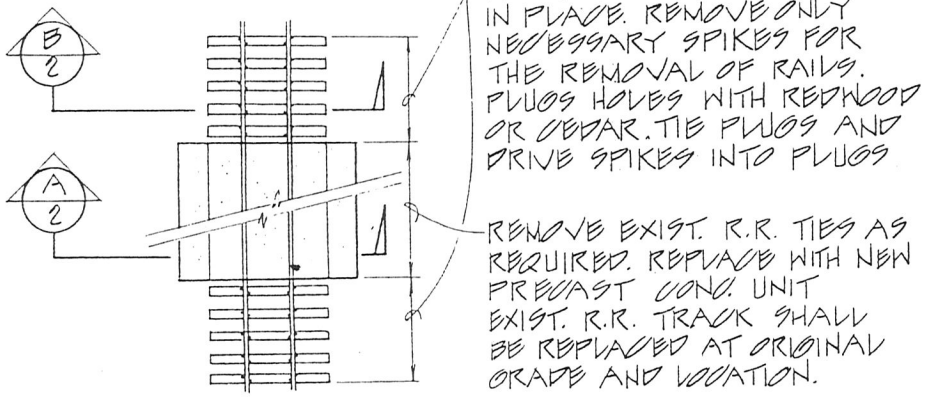
18. THE CONTRACTOR SHALL PROVIDE RAIL ANCHORS EVERY EIGHT TO TEN TIES MINIMUM.

19. THE CONTRACTOR SHALL REPLACE TIES AS NECESSARY TO PROVIDE SOLID TIES AT SIXTY INCH ON-CENTER MAXIMUM SPACING WHERE EXISTING RAILS DO NOT HAVE TO BE REMOVED.

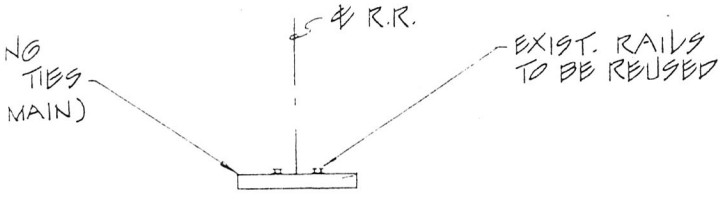
20. THE DISTANCE BETWEEN THE TRACK RAILS SHALL BE CHECKED ALONG THE ENTIRE LENGTH WITHIN THE PROJECT LIMITS TO CONFORM TO THE CURRENT EDITION OF THE A.R.E.A. MANUAL FOR RAILWAY ENGINEERING.

21. THE CONTRACTOR SHALL CHECK THE TRACK ALIGNMENT AND ELIMINATE ANY "KINKS" PRIOR TO COMPLETION OF WORK.

Post-it® Fax Note 7671	Date	# of pages ▶ 8
To Nathan Napoka	From Ben Schlagak	
Co./Dept. DLNR-Hist. Pres.	Co. HRS	
Phone # 587 0040	Phone # ~~538 8821~~	
Fax # 587 0018	Fax # ~~538 8751~~	



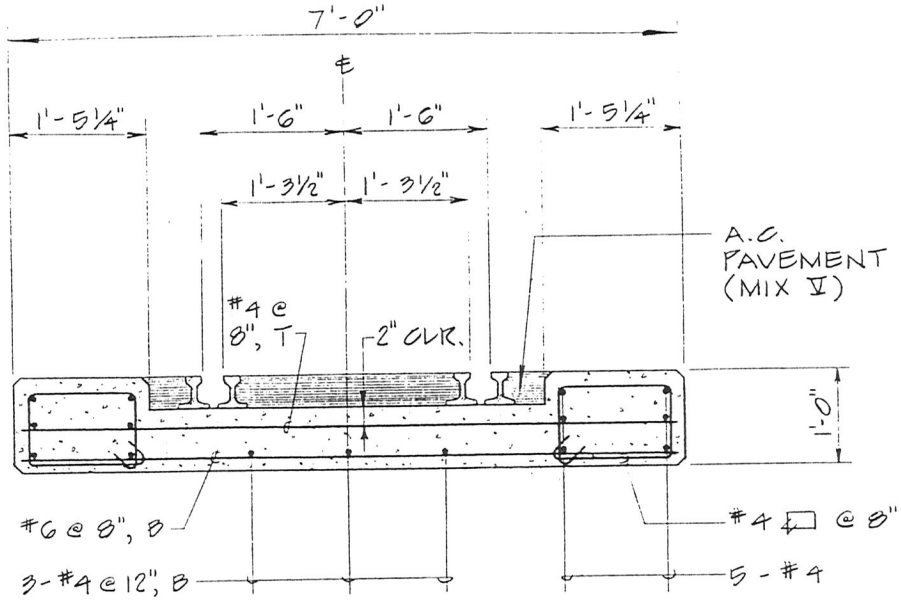
PLAN



SECTION B/2

RECONSTRUCTION OF AILROAD TRACK DETAIL

NOT TO SCALE



NOTES:

1. ALL CONCRETE SHALL BE PRE-CAST. fc' = 5000 PSI.
2. PRE-CAST SECTIONS SHALL HAVE A LENGTH OF 8'-0".
3. ALL REINFORCING STEEL SHALL BE GRADE 60.
4. ALL REINFORCING CLEARANCES FROM CONCRETE EDGES SHALL BE 1½", UNLESS OTHERWISE NOTED.

PRE-CAST CONCRETE CROSSING UNIT DETAIL

SCALE: ¾"=1'-0"

NOTES FOR WORK WITHIN 40-FOOT WIDE RAILROAD RIGHT-OF-WAY

1. CONSTRUCTION METHOD AND MATERIAL SHALL CONFORM TO THE CURRENT EDITION OF THE AMERICAN RAILWAY ENGINEERING ASSOCIATION (A.R.E.A.) MANUAL FOR RAILWAY ENGINEERING AND STATE OF HAWAII HIGHWAY DIVISION "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION."

2. BALLAST SHALL BE 1 INCH TO 1-1/2-INCH CORAL SCREENED.

3. CROSS TIES SHALL BE 6" X 8" X 8'-0" "HEART" DOUGLAS FIR. ALL TIES SHALL BE FREE FROM ANY DEFECTS THAT MAY IMPAIR THEIR STRENGTH OR DURABILITY AS CROSS TIES, SUCH AS DECAY, LARGE SPLITS, LARGE SNAKES, LARGE OR NUMEROUS HOLES OR KNOTS, GRAIN WITH SLANT GREATER THAN 1 IN 15.

4. CROSS TIES SHALL BE TREATED WITH A CREOSOTE-COAL TAR SOLUTION CONFORMING TO A.R.E.A. MANUAL.

5. EXISTING TIES, IF FOUND IN USABLE CONDITION, MAY BE REUSED. ANY EXISTING SPIKE HOLES MUST BE PLUGGED WITH CEDAR OR REDWOOD PLUGS PRIOR TO REUSE, OTHERWISE NEW TIES MUST BE SUPPLIED.

6. EXISTING TRACK RAILS SHALL BE REUSED. THE CONTRACTOR SHALL TAKE EXTREME CARE WHILE REMOVING, STORING AND REPLACING THE RAILS. ANY DAMAGE TO THE RAILS SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR, AND THE CONTRACTOR SHALL REPLACE THE DAMAGED RAILS AT HIS OWN EXPENSE.

7. RAIL SPLICE BOLTS, NUTS AND WASHERS SHALL CONFORM TO THE A.R.E.A. MANUAL FOR RAILWAY ENGINEERING.

8. STEEL CUT TRACK SPIKES SHALL BE 9/16" REINFORCED THROAT TRACK SPIKE 5-1/2" UNDERHEAD. THERE SHALL BE FOUR (4) SPIKES PER TIE PLACED INSIDE AND OUTSIDE OF RAIL, STAGGERED.

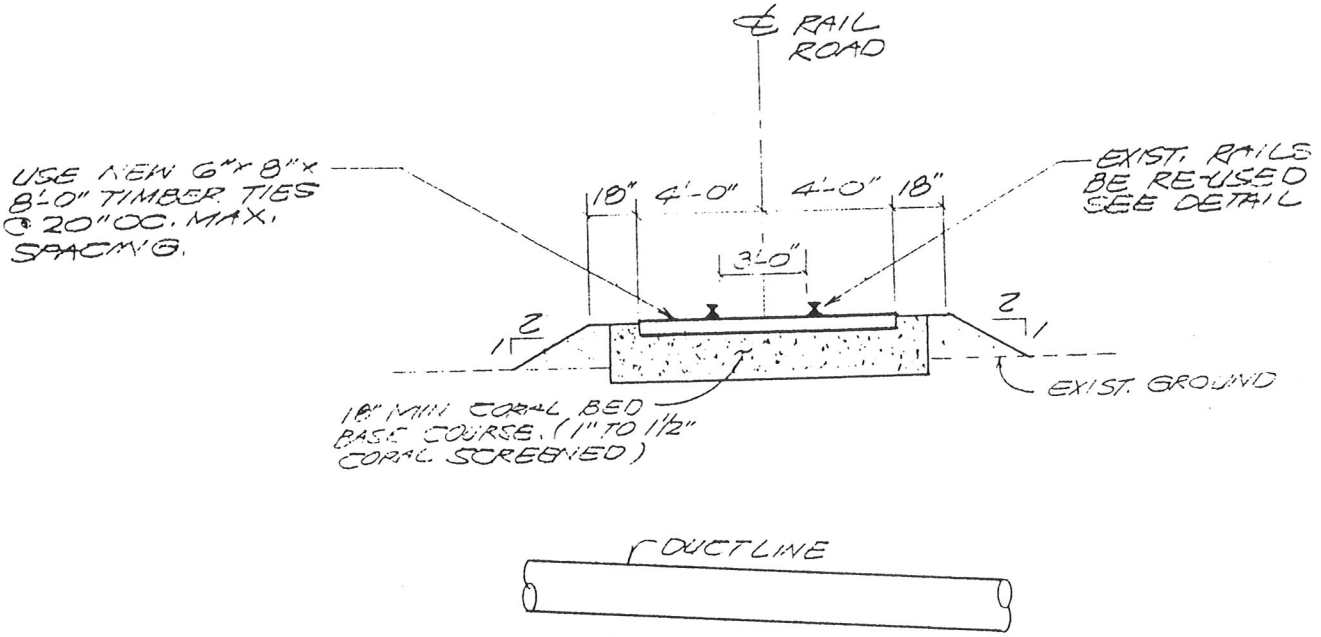
9. LENGTH OF ALL R.R. TRACK RAILS BETWEEN SPLICES = 33'-0"±.

10. RAILS MUST BE MACHINE CUT. (NOTE: RAILS CUT WITH TORCH WILL NOT BE ACCEPTABLE.)

11. EXISTING R.R. TRACK AND SPLICES TO BE REMOVED FOR NEW CONSTRUCTION WORK AND REPLACED. REUSE EXISTING RAILS AND SPLICES, EXCEPT FURNISH NEW BOLTS, NUTS AND WASHERS FOR SPLICES. NEW BOLTS SHALL BE THE SAME SIZE AS THE EXISTING BOLTS.

12. ONE WEEK PRIOR TO STARTING WORK ON THE RAILROAD TRACK, CONTACT ~~ANDY FOULDS OF~~ THE HAWAIIAN RAILWAY SOCIETY AT ~~537-8746~~ 681546. WORK ON THE RAILROAD TRACK SHALL BE COORDINATED WITH AND APPROVED BY THE HAWAIIAN RAILWAY SOCIETY, P.O. BOX 1208, EWA STATION, EWA BEACH, HAWAII 96706.

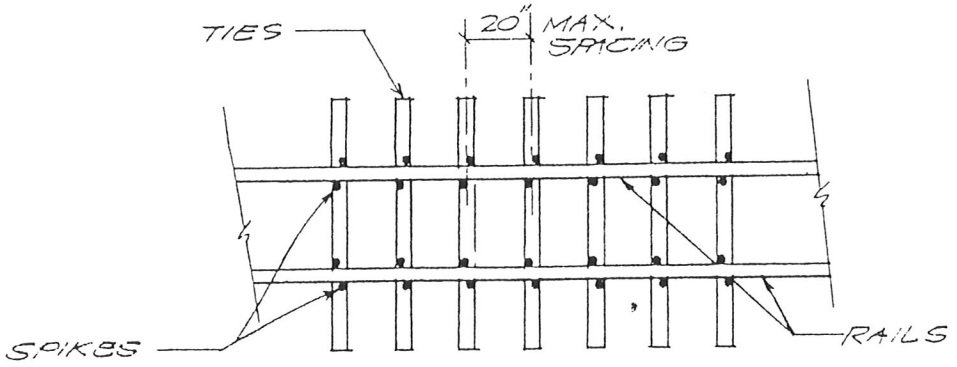
13. CONTRACTOR SHALL NOTIFY STATE OF HAWAII DEPARTMENT OF LAND AND NATURAL RESOURCES (ATTN: STATE HISTORIC PRESERVATION DIVISION) AND DOT HIGHWAYS DIVISION (0AHU DISTRICT OFFICE, TELEPHONE NO. 831-6712), PRIOR TO COMPLETION OF THIS PROJECT, SO THAT A FINAL INSPECTION CAN BE CONDUCTED TO VERIFY SUCCESSFUL REINSTALLATION OF TRACKS.



ELEVATION

RECONSTRUCTION OF R.R. TRACK

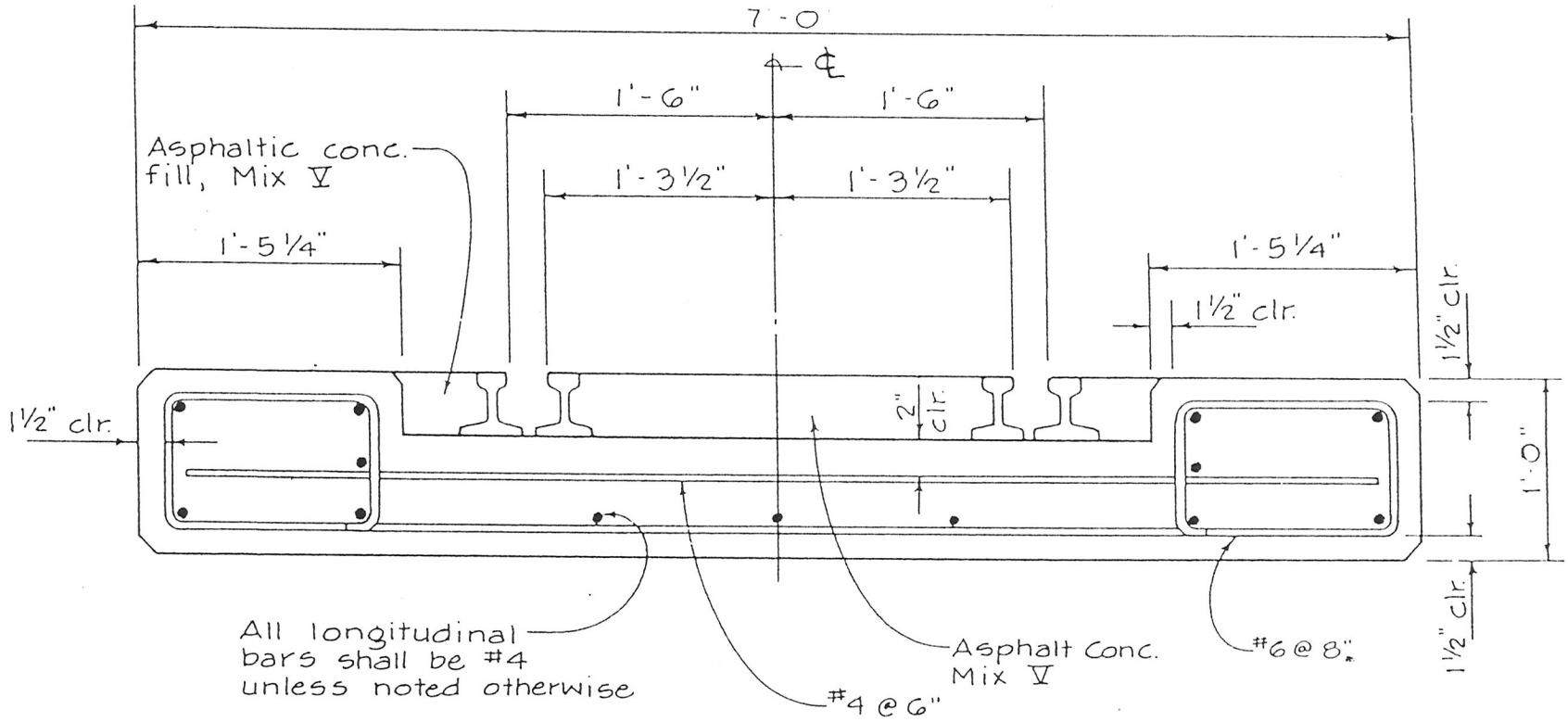
NOT TO SCALE



PLAN

SPIKING PATTERN DIAGRAM

NOT TO SCALE



NOTE:

1. All concrete shall be precast. $f_c' = 5000$ psi
2. All reinforcing steel shall be grade 60.

REINFORCED CONCRETE CROSSING UNIT

Scale: 1" = 1'-0"

BASE COURSE

2 / C-2 PRECAST CONCRETE CROSSING UNIT DETAIL

NOT TO SCALE

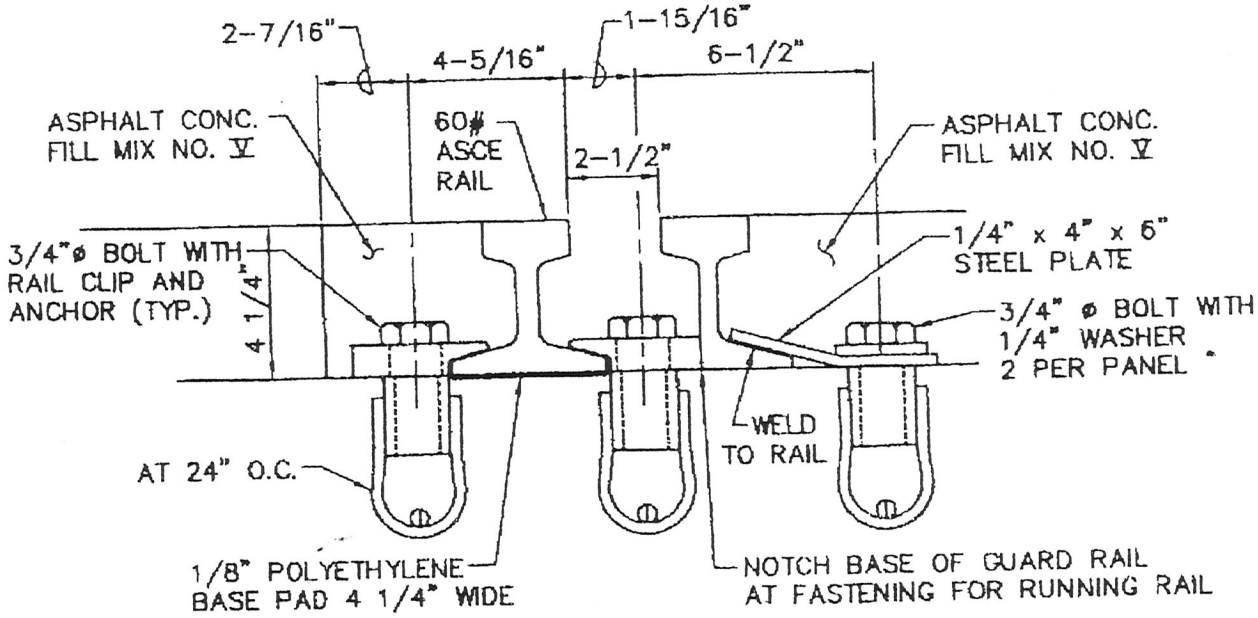
NOTES:

1. ALL CONCRETE SHALL BE PRE-CAST, f'c=5,000 psi.
2. PRECAST SECTIONS SHALL HAVE A LENGTH OF 8'-0", MAX.
3. ALL REINFORCING STEEL SHALL BE GRADE 60.
4. ALL REINFORCING CLEARANCES FROM CONCRETE EDGES SHALL BE 1-1/2", UNLESS OTHERWISE NOTED.

TOTAL P.03

NOTE:

POLYETHYLENE BASE PADS FOR RAIL SHALL CONFORM TO ASTM DESIGNATION D1248, TYPE III CLASS C, GRADE 5 FOR HIGH DENSITY POLYETHYLENE PLASTIC WITH A DUROMETER HARDNESS OF 60 TO 65 D. THE HARDNESS SHALL BE STABLE BETWEEN PLUS 140 DEGREES F AND MINUS 40 DEGREES F.



3 / C-2 DETAIL AT RAIL CLIP

SCALE 3" = 1'-0"

Former Oahu Railway and Land Company Right-of-Way

Section 106 Procedural Programmatic Agreement Discussion

Wednesday, September 13, 2017 1:00 p.m. 1001 Bishop Street, Suite 2400, Honolulu, HI 96813

First Name	Last Name	Agency / Group	Phone	Email	Requesting a Copy of the PA?
Kelly	Higa	HRS	524-5644	khigaelbfhawaii.com	
Steve	Vondt	HRS	587 5461	steve.vondt@hawaiirailway.com	
Deona	Nahoa	HDOT			
Wayne	Iwamasa	HDOT	692-7391	wayne.y.iwamasa@hawaii.gov	
Adriana	Windham	FHWA	541-2328	adriana.windham@[redacted]dot.gov	
Kelly	Okumura	FHWA	541-2304	kelly.okumura@dot.gov	
Pua	Aiu	HDOT	587-1497	pua.aiu@hawaii.gov	
Meesa	Otani	FHWA	541-2316	meesa.otani@dot.gov	
Misako	Mimura	HDOT	692-7589	misako.mimura@hawaii.gov	
Kiersten	Faulkner	HHF	523-2900	kiersten@historichawaii.org	

Former Oahu Railway and Land Company Right-of-Way

Section 106 Procedural Programmatic Agreement Discussion

Wednesday, September 13, 2017 1:00 p.m. 1001 Bishop Street, Suite 2400, Honolulu, HI 96813

First Name	Last Name	Agency / Group	Phone	Email	Requesting a Copy of the PA?
Rachel	Adams	WSP	566-2257	rachel.adams@wsp.com	
Malie	Espin	WSP	566-2235	malie.espin@wsp.com	
Betsy	Merritt	(via phone)			
Carolyn	W-Hildebrand		2328898	wertgano hawaii.edu	

MEETING SUMMARY

PROJECT NAME	Former Oahu Railway and Land Company Right-of-Way (OR&L ROW), Section 106 of the National Historic Preservation Act (Section 106) Procedural Programmatic Agreement
DATE/TIME/VENUE	September 13, 2017 at 1:00 pm (Preservation Advocates)
ATTENDEES	See attached Sign-In Sheets **Signatories Present:** FHWA: Meesa Otani, Kelly Okumura, Adriana Windham HDOT: Misako Mimura, Pua Aiu, Deona Naboa, Wayne Iwamasa ACHP: n/a SHPD: n/a
DISTRIBUTION	All listed on the attached Sign-In Sheets (multiple dates and times for various interested parties)
HAND-OUTS	1. Meeting Agenda 2. Section 106 Procedural Programmatic Agreement, Regarding the Former Oahu Railway & Land Company Right of Way – Background Information 3. Limits of Procedural Section 106 PA 4. Proposed Section 106 and Section 4(f) Process by OR&L PA Tier (revised per September 13, 2017 10:00 a.m. meeting) 5. Typical Uses for the PA

MEETING DISCUSSIONS

1.0 BACKGROUND/INTRODUCTIONS

- WSP provided an overview on the purpose of the Section 106 Procedural Programmatic Agreement (PA), and indicated that because of the attendees' familiarity with the former Oahu Railway & Land Company (OR&L) right-of-way (ROW) and triggers for NEPA and Section 106, did not go into much detail.
- WSP explained that the PA is an agreement document between the Federal Highway Administration (FHWA) and the State Historic Preservation Division (SHPD). The Advisory Council for Historic Preservation (ACHP) has elected to participate, and therefore is included as a signatory. As the owner of the ROW, the Hawaii Department of Transportation (HDOT) is also a signatory.
- WSP asked the meeting attendees to talk about their interest in the PA and how a PA might be beneficial to them. WSP asked Ms. Betsy Merritt (attending via telephone, on part of the National Trust for Historic Preservation [NTHP]) to start.
- Ms. Merritt indicated that she had some questions and asked if she could start with that, which WSP acknowledged.

  - Ms. Merritt stated that HDOT and FHWA is saying that the PA is intended to cover activities that will not have an adverse effect, but mentions crossings.
  - WSP responded that there are three tiers identified within the PA to address the various levels of effect to the historic ROW. The third tier is the standard regulatory process that would be followed for those undertakings that are likely to have an adverse effect to the ROW. Tier 3 is referenced in the PA to be comprehensive in describing process and approach.
  - Ms. Merritt asked about Hawaii Revised Statutes Chapter 6e (Chapter 6e) and coordination of review with Section 106 and the PA. This question was focused particularly on maintenance activities.
  - HDOT and WSP responded that Chapter 6e has a different set of triggers than the federal (Section 106) regulations covered by the PA. It is a different process. The PA focuses on Section 106 and is not intended to address Chapter 6e. The purpose for the PA and today's meeting is regarding Section 106.
  - Ms. Merritt requested further clarification regarding a letter from the SHPD that rendered a "No Historic Properties Affected" for maintenance and track work activities.
  - Ms. Kiersten Faulkner (Historic Hawaii Foundation [HHF]) explained to Ms. Merritt that the finding of "No Historic Properties Affected" has a different connotation under Chapter 6e than in regards to Section 106. It's the equivalent of a "no adverse effect" under Section 106. It does not mean that there are no historic properties.
- Mr. Steve Vendt (Hawaiian Railway Society [HRS]) indicated that he also has concerns regarding the "Typical Uses for the PA" hand-out. The Tier 2 activity shows a culvert. It concerns him that a box culvert can be considered a Tier 2 when it would be tearing up the track, how does that qualify?
- Ms. Merritt referred to the 15 calendar days for consulting parties to provide a response. (Note: the hand-out had been revised per the 10:00 a.m. meeting this same day to reflect "15 working days". Ms. Merritt had the materials that had been previously sent for her use.)
- Ms. Faulkner expressed concern and dissatisfaction that Ms. Merritt and Mr. Vendt are referring to materials that had not previously been provided to the Historic Hawaii Foundation. The items of discussion that are being brought up are entirely new and had not been equitably disclosed.
- WSP apologized to Ms. Faulkner, and assured her that only Ms. Merritt had received advanced copies of materials yesterday in order to allow her to have the materials when she joined the teleconference.
- Mr. Vendt continued to express frustration that the HRS has been preserving the rail and HDOT has not. The (Chapter 6e) should not have been the circular issue that it has been.
- Ms. Meesa Otani (FHWA) indicated that the track work is not an issue under federal regulations.
- Ms. Merritt questioned the disparity between Chapter 6e and Section 106 for maintenance activities.
- WSP reiterated that Chapter 6e and Section 106 are different regulations with different triggers and different procedures for compliance. The purpose for the meeting is to discuss Section 106 and not Chapter 6e. We have a proposed agenda that we need to follow in order to respect the time of all attendees.
- HDOT indicated that the issues being raised are Use and Occupancy issues and can be discussed at a separate meeting.
- HRS continued to expressed concern regarding the 6e process affecting maintenance activities and track work.
- WSP explained that this is a Section 106 Procedural PA meeting. We would like to establish that the PA is a beneficial and worthwhile effort, and that there is value to the attendees. WSP asked HRS to share with the group their interests in the PA.
- HRS indicated that they are interested in assuring that track work and maintenance activities are covered in Tier 1.
- HHF explained that they see a PA providing numerous benefits, including:
  - Clarifying rules and defining standard operating procedures;

- Contributing to saving and preserving the historic property by looking at the resource in a holistic context;
- Providing a mechanism to consider the overall cumulative effects and avoidance of adverse effects;
- Establishing mitigation measures for long term impacts; and
- Has the potential to coordinate and streamline the review process.

- Ms. Carol Weygan-Hildebrand [joined the meeting mid-discussion] indicated that she is a student at the University of Hawaii and part of the Ewa community. She is new to the Section 106 process, but has an interest in preservation.

2.0 REVIEW OF PROJECT LIMITS

- Attendees reviewed the *Project Limits* hand-out.
- WSP explained that the PA will address the 40-foot wide right of way in its entirety, as shown in the hand-out. The PA will be clear in describing how the document may be applied to those areas. Note that FHWA and SHPD have preliminarily agreed that east of Arizona Road, the ROW has no integrity. New crossings in that area would likely fall into the Tier 1 category.

3.0 REVIEW OF PA PROCESS

- Attendees reviewed the *Proposed Section 106 and Section 4(f) Process by OR&L PA Tier* hand-out.
- HHF asked who at HDOT and FHWA would review Tier 1 undertakings? Qualifications for the reviewer should be spelled out in the PA. Scope creep is a concern, and there is the need to make sure that the undertaking remains consistent with the Tier and is reviewed appropriately.
- WSP and HDOT responded that the objective of the consultation efforts, as well as coordination with the SHPD and FHWA in developing the PA is to evaluate the potential impacts of various activities and incorporate that understanding into the agreement. Essentially create a list in Tier 1 that requires no professional judgment as it has been coordinated up front.
- Ms. Weygan-Hildebrand expressed concern regarding the 15 calendar days for consulting parties to review a proposed undertaking under Tier 2. She indicated that she and the community often look to HHF and HRS' expertise on these types of issues, but as someone who is learning about Section 106, she is concerned whether 15 calendar days is enough time to review a proposed undertaking or to know what questions to ask.
- WSP noted that the time-frame identified within the process is referring to the amount of time that consulting parties would have to raise a Section 106 issue with an undertaking. Typically, once the issue is raised, then the project proponent engages with the consulting party and they meet or discuss the concerns. However, WSP wondered whether consulting parties could request an extension to review from FHWA.
- FHWA indicated that while they try to be flexible, FHWA is held to strict funding obligation deadlines so review timeframes will need to be strictly adhered to.
- Upon further discussion, FHWA, HDOT, and HHF mutually agreed that the timeframe for review could be revised to 15 working days, rather than 15 calendar days. Working days typically translates to about 21 calendar days, depending on weekends and when holidays are involved.
- WSP noted that SHPD has not had an opportunity to review the 15 calendar day response time proposed for SHPD to respond in Tier 2.
- In reviewing the annual reporting requirements, HHF noted their experiences with the U.S. Naval PA and the Transit project. U.S. Navy PA approach has been a successful model. HHF provided the following recommendations:
  - Annual report should include all projects under all tiers, to allow for a comprehensive evaluation of how the PA is performing. If there are reasonably foreseeable or anticipated projects in the pipeline, it is recommended that those be identified as upcoming in the annual report.
  - Anticipate and plan for a 10-year duration for the PA.

- Reporting should be annually for the first three years, and then occur every two years after that. FHWA and HDOT indicated that due to the lengthy review process, an annual meeting can be burdensome. HHF suggested that reviews not be spread out more than every two years, and frontload meetings in the initial years to get feedback on how the PA is working.

- WSP clarified that the consulting parties identified for this meeting would be those that indicated that they wished to review the individual undertakings associated with the PA.
- HHF advised that for the first meetings signatories and consulting parties should get the complete list of projects. Meetings could be coordinated a few months after the reports have been sent to those involved.

4.0 REVIEW OF ACTIVITIES WITHIN EACH TIER

- Attendees reviewed the *Typical Uses for the PA* hand-out.
- HRS, as discussed earlier in the meeting, again noted that they would appreciate their activities be considered within the Tier 1 category. They have been preserving the rail and would like to continue doing so.
- HHF noted that regarding Tier 2, there is a big difference between mitigations and conditions.
- WSP acknowledged that these conditions are referring to design and construction methods, as well as location. The [Historic Context Study and] Integrity Assessment would be used to assist in considering the appropriate tier for an individual project. This assessment would also be used to help identify the character defining features of the historic ROW.
- The example of micro-tunneling rather than trenching was used as an example of a condition that could be adopted to allow for a Tier 1 project. Attendees agreed that the PA should be specific in describing design and construction methods that do not adversely affect the property.
- WSP explained that "Conditions" can also refer to incorporation of Secretary of Interior's Standards and in-kind replacement of materials.
- HHF expressed the concern that in-kind does not always result in preservation as some areas have been changed over time. Attendees noted sections where the Navy used different materials as well as areas in the vicinity of Ko Olina where the grade profile has been modified. HHF advised that the PA should incorporate standards for historic accuracy as the priority over in-kind replacement.
- HHF would like to see the PA identify acceptable profiles and develop design standards for the OR&L ROW as a historic district. One example would be identifying the historic standard of steel gauges for the rail. HHF, HRS, and HDOT acknowledged that there could be areas where a range of materials may be considered acceptable due to crossings and material availability, but the PA should identify and incorporate standards, such as:
  - Gauge of the rail (90 pound vs. 60 pound);
  - Profile;
  - Wooden ties rather than composite.
- HDOT acknowledged that the coral ballast may become an issue in the future as it will foreseeably no longer be available. Acceptable materials may be white stone. All acknowledged that this not a material that they were willing to concede right now, but it will be an issue that will need to be resolved in the future.
- HHF and HDOT agreed that when projects involve modifying features that are considered individually character-defining replacing in-kind would not be sufficient to qualify the action within Tier 1 or Tier 2 because once these types of features are modified their integrity is diminished.

5.0 ARCHAEOLOGY AND OTHER CULTURAL RESOURCES

- Attendees were asked whether they are aware of other archaeological, historic, or cultural resources within the 40-foot ROW. None were identified.
- Since the PA does not address archaeology beneath the ROW, HHF recommended that standard archaeological monitoring be required for all tiers.

6.0 OTHER QUESTIONS/DISCUSSIONS

- 2015 Section 106 Exemption for Railroads
  - NTHP asked whether the December 2015 Congress exemption for railroad maintenance applies to the Former OR&L ROW.
  - FHWA indicated that it does not.
  - NTHP recommended that the language contained in the exemption be reviewed and used in the PA, as appropriate.
- Existing Easements About to Expire
  - FHWA explained that if an easement is expired, granting a new easement would trigger Section 106 and the use of the PA.
- Restrictions on New Crossings
  - HHF asked whether the PA would establish minimum distances between crossings.
  - WSP explained that the approach of establishing minimum distances would be inconsistent with the current thought of utilizing the Historic Context Study and Integrity Assessment to encourage co-locating facilities or focusing crossings in areas that have less integrity, while trying to retain the continuous and well-preserved stretches.

7.0 NEXT STEPS

- Meeting summaries will be prepared for all small group meetings and a package containing all five summaries and sets of sign-in sheets for each meeting will be distributed to all meeting attendees from each small group. Everyone will see what other groups brought up for discussion and who participated.
- Once drafted the PA will be distributed to all those who expressed interest in being a consulting party or receiving a copy during the scoping period.

Former Oahu Railway and Land Company Right-of-Way

Section 106 Procedural Programmatic Agreement Discussion

Thursday, September 14, 2017 1:00 p.m. 1001 Bishop Street, Suite 2400, Honolulu, HI 96813

First Name	Last Name	Agency / Group	Phone	Email	Requesting a Copy of the PA?
Susan	Lebo	SHPD	692-8019	Susan.A.Lebo@hawaii.gov	yes
Wayne	Iwamasa	HDOT	692-7391	wayne.y.iwamasa@hawaii.gov	Yes
Deona	Naboa	HDOT			
Pua	Aiu	HDOT	587-1492	pua.aiu@hawaii.gov	
Meesa	Otani	FHWA	541-2316	meesa.otani@dot.gov	
Kelly	Okumura	FHWA	541-2304	kelly.okumura@dot.gov	
Misako	Mimura	HDOT	692-7584	misako.k.mimura@hawaii.gov	
TESHA	MALAMA	HCDA-KALAELOA	372-3562 620-9643	Tesha.Malama@hawaii.gov	Yes
Malie	Espin	WSP USA	561-1324 566-2235	malie.espin@wsp.com	
Rob	Freitas	AHHL	620-9920	Robert.E.Freitas@hi.gov	

Former Oahu Railway and Land Company Right-of-Way

Section 106 Procedural Programmatic Agreement Discussion

Thursday, September 14, 2017 1:00 p.m. 1001 Bishop Street, Suite 2400, Honolulu, HI 96813

First Name	Last Name	Agency / Group	Phone	Email	Requesting a Copy of the PA?
Curtis	Matsuda	DOT	692-7561	curtis.matsuda@hawaii.gov	
Rachel	Adam	WSP			
William	Ailā	DHHL	620-9502	william.J.Aila@hawaii.gov.	
DAVID	LEE	City-DDC	768-8701	dlee10@honolulu.gov	Yes
GERMAINE.	SALIM	DBEDT/HCDA	594-0318.	GERMAINE.SALIM-HAGIHARA@HAWAII.GOV	
Virginia	Sosh	DTS	768-5461	virginia.sosh@honolulu.gov	yes

MEETING SUMMARY

PROJECT NAME	Former Oahu Railway and Land Company Right-of-Way, Section 106 Procedural Programmatic Agreement (PA)
DATE/TIME/VENUE	September 14, 2017 at 1:00 pm (Land Use and Permitting Authorities)
ATTENDEES	See attached Sign-In Sheets **Signatories Present:** FHWA: Meesa Otani, Kelly Okumura HDOT: Misako Mimura, Pua Aiu, Deona Naboa, Wayne Iwamasa, Curtis Matsuda ACHP: n/a SHPD: Susan Lebo
DISTRIBUTION	All listed on the attached Sign-In Sheets (multiple dates and times for various interested parties)
HAND-OUTS	1. Meeting Agenda 2. Section 106 Procedural Programmatic Agreement, Regarding the Former Oahu Railway & Land Company Right of Way – Background Information 3. Limits of Procedural Section 106 PA 4. Proposed Section 106 and Section 4(f) Process by OR&L PA Tier (revised per September 13, 2017 10:00 a.m. meeting) 5. Typical Uses for the PA

MEETING DISCUSSIONS

1.0 BACKGROUND/INTRODUCTIONS

- HDOT provided the following background information:
  - In the 1980s the GSA transferred the Deed for the Former OR&L ROW to HDOT so that they could use the ROW for a pedestrian and bicycle path.
  - NEPA and Section 106 is triggered because the Deed requires federal authorization prior to issuance of use and occupancy agreements.
  - The PA is meant to provide consistency to the Section 106 review process and streamline it.
  - Section 106 differs from other environmental regulations and processes because it requires the project proponent to mitigate to resolve the adverse effect, not just disclose the impact.
  - Section 4(f) can become an issue for transportation-related projects and needs to be kept in mind as it will not be covered by the PA. Projects should coordinate with the HDOT Rights of Way division early in the process to minimize the potential for impacts to schedule and to accommodate any necessary considerations into the design.

- HDOT asked attendees to introduce themselves and indicate their interest in the procedural PA. A few of the groups present noted their interests in the PA as:
  - City and County of Honolulu (CCH): bike path.
  - Department of Hawaiian Homelands (DHHL): owns adjacent lands.
  - Hawaii Community Development Authority (HCDA): at Roosevelt Avenue, just south of the ROW there's an area that may require crossings due to developments in the area; also, a crossing at Wakea Street is a major effort that is intended to facilitate community movements.
- HDOT reminded the attendees that even with the PA in place it will remain important to inform your permittees and contractors that they should initiate coordination with HDOT early on in developing their designs and approaches. This will help minimize the potential for any surprises with regards to requirements for a project.

2.0 REVIEW OF PROJECT LIMITS

- Attendees reviewed the *Limits of the Procedural PA* hand-out.
- WSP explained that the PA will address the whole 40-foot right-of-way from the vicinity of Mohihi Street to Central Waipahu for any federal undertaking (the use of federal funds or federal actions).
- WSP asked if anyone had any questions. Meeting attendees indicated no.

3.0 REVIEW OF PA PROCESS

- Attendees reviewed the *Proposed Section 106 and Section 4(f) Process by OR&L PA Tier* hand-out.
- WSP explained the following:
  - The PA is intended to streamline compliance for those activities that are not anticipated to adversely affect the former OR&L ROW.
  - Tier 1 requires that the project proponent provide supporting documentation to demonstrate that the proposed activity is consistent with the tier.
  - A review every two years of the projects that used the PA, in any tier, is being proposed. The review would include signatories to the PA and the consulting parties that participate in reviewing undertakings within the PA.
  - Projects could move to a tier with a more streamlined process if the appropriate modifications are made to its design, methodology, placement, etc. We are seeking this type of input through the small group meetings.
  - Tier 2 streamlines the process the following ways:
    - No requirement for placement of an ad in the newspaper.
    - Requires project proponents to send a notice of the proposed project to the consulting parties. This becomes the Section 106 consultation effort. Parties have 15 working days to respond.
    - Consulting parties are those that identified themselves for consultation during the PA development process.
    - If no responses are received, the project may proceed as a Tier 1 after submitting the appropriate documentation.
    - If concerns are received, then the consulting parties are invited to discuss their concerns and possible mitigation.
    - The agreed-upon mitigation and associated documentation would be submitted to SHPD for review. SHPD would then have 15 working days to review the submittal and reject or comment.
    - If no response is received from SHPD, it is assumed that they concur with the mitigation and a "no adverse effect" is issued.

- WSP noted that the SHPD response timeframe had not been discussed previously with SHPD. SHPD indicated that this is something they would need to look at with Dr. Downer.
- HCDA asked who would need to be notified in Tier 2. WSP indicated these are respondents to the invitation to consult. Postcards were sent out asking people to identify whether they want to be a consulting party to review undertakings for the PA.
- HCDA asked how large the public outreach was in seeking consulting parties. WSP and HDOT indicated that hundreds of adjacent landowners, elected officials, neighborhood boards, public agencies, native Hawaiian Organizations, known preservation organizations and utilities were sent invitations to consult. A public ad in the Star Advertiser was posted, and public meeting was held in January. Interested parties are/were encouraged to notify HDOT through the project email address or postcard. Consulting parties can request to be added at any time.
- Tier 3 projects are those with identified adverse effects and would follow the normal Section 106 process.
- When a project serves a transportation purpose and it is in Tier 3 (anticipated "adverse effect"), WSP noted that the project proponent is strongly encouraged to meet with HDOT's Right of Way division early on. The proposed project must seek to avoid "use" of the resource unless there is no prudent and feasible avoidance alternative. This requires an extensive alternatives analysis and evaluation if there is any other way to meet purpose and need for the project. This may involve considering expansion of existing facilities. If the resource cannot be avoided, the project proponent will have to put forward the least impact alternative.

4.0 REVIEW OF ACTIVITIES WITHIN EACH TIER

- Attendees reviewed the *Typical Uses for the PA* hand-out.
- WSP explained:
  - Tier 1 would cover maintenance activities for items already in place.
  - When evaluating a new structure, the construction methodology would be considered to determine if a project is covered by Tier 1 or Tier 2. The integrity of the ROW would also be considered specifically for each project.
  - Tier 2 could also cover projects that would result in placement of minor structures in the ROW that don't necessarily touch the rails and ties. HCDA asked for clarification on what would be considered a minor structure.
  - Items that could be considered minor structures were suggested:
    - An electric cabinet on the side of the ROW.
    - Wooden telephone poles (there used to be telegraph poles in the ROW); not metal poles.
    - Gas lines, as long as all pre-existing topography is reconstructed.
    - Drainage structures.
- HDOT clarified that they would prefer to not have any minor structures within the ROW, surely there are better places to install electrical cabinets.
- Meeting attendees discussed conditions or mitigations that could move a project from Tier 2 to Tier 1. These situations would be on a case-by-case basis, but could involve in-kind or historic replacement.
- HCDA offered a scenario for discussion, and how it could use the PA. A 12kV line needs to cross the ROW from Kapolei High School. They had evaluated micro-tunneling, but obtaining quotes for micro-tunneling has been difficult. Perhaps pulling the line overhead could be considered.
- HDOT and WSP indicated that the overhead method would be evaluated on a case-by-case as a Tier 2 or Tier 1, depending on surrounding conditions. For example, if the line was carried across on wooden telephone poles, and there are other wooden telephone poles in the area, it could be considered a Tier 1.

5.0 QUESTIONS AND OTHER TOPICS OF DISCUSSION

- SHPD asked whether the Hawaiian Railway Society (HRS) had expressed any concerns with the PA in their small group meeting. WSP indicated that their comments were focused on HRS' ability to conduct maintenance on the ROW. WSP added that all meeting attendees would receive summaries of all small group meetings.
- SHPD expressed concern for the cumulative effects of actions on the ROW. If only 5% of the original material remains for a historic resource, then is that truly preserving the resource? HDOT asked if it is even a historic resource if none of the historic materials are there? SHPD responded no it is not.
- WSP acknowledged SHPD's comment, and indicated that the Historic Hawaii Foundation (HHF) made recommendations related to this issue. The recommendation was to create design standards within the PA that identify preferred materials and designs. The preference would be for historically accurate over in-kind replacement.
- HDOT added that standards for certain materials such as ties have already been identified. HDOT added their concern for individual features that may become modified, as once those individually significant features are modified even in-kind replacement is not sufficient to mitigate to a "no adverse effect".
- WSP brought up the issue of when materials are being replaced, there are numerous eras that are relevant to the ROW. What is the appropriate era?
- SHPD and HDOT indicated that it would be the era from which the resource is significant, which is from when it was first built - the Benjamin Dillingham construction.

6.0 NEXT STEPS AND QUESTIONS

- Attendees requested meeting summaries from all meetings. HDOT confirmed that meeting summaries will be prepared for all small group meetings and a package containing all five summaries and sets of sign-in sheets for each meeting will be distributed to all meeting attendees from each small group. Everyone will see what other groups brought up for discussion and who participated.
- Once drafted the PA will be distributed to all those who expressed interest in being a consulting party or receiving a copy during the scoping period.

Former Oahu Railway and Land Company Right-of-Way

Section 106 Procedural Programmatic Agreement Discussion

Tuesday, September 19, 2017 1:00 p.m. 1001 Bishop Street, Suite 2400, Honolulu, HI 96813

First Name	Last Name	Agency / Group	Phone	Email	Requesting a Copy of the PA?
Wayne	Iwamasa	HDOT	6927391	wayne.y.iwamasa@hawaii.gov	
Nona	Nabor	HDOT			
Wilson	Rivera	IES	808 349-3618	WRive Islands Energy Services.com	X
Rachel	Adams	WSP	808 5662257	rachel.adams@wsp.com	
Misako	Mimura	HDOT	808-692-7589	misako.k.mimura@hawaii.gov	
Lester	Fujikami	BWS	808 748-5713	LFujikami@hbws.org	X
Michael	Domion	BWS	748-5743	mdomion@hbws.org	X
Michele	Ohye	DR Horton	528-9083	MOhye@drhorton.com	X
MIKE	JONES	" "	782-5908	MJONES@DRHorton	
LESLEY	MATSUMOTO	AECOM	781-7481	lesley.matsumoto@aecom.com	✓

Former Oahu Railway and Land Company Right-of-Way

Section 106 Procedural Programmatic Agreement Discussion

Tuesday, September 19, 2017 1:00 p.m. 1001 Bishop Street, Suite 2400, Honolulu, HI 96813

First Name	Last Name	Agency / Group	Phone	Email	Requesting a Copy of the PA?
Steve	Sakai	Rontt. & Assoc	941-0577	postmaster@rnsha.com	✓
BURKLEY	STOWE	TRG/KOOLINA DEV.	726-4774	BStowe@Theresortgroup.com	
SHANE	McMONAGLE	KO OLINA	673-0124	shane.mcmonagle@koolina.com	✓
Maeda	Timson	Ko Olina	349-5992	maeda.timson@koolina.com	✓
Louie	TAMORIA	PARHAWAII Ref	479-0589	louie.V.Tamoria@parpacific.com	✓
Mitch	Silver	Hunt Devpt.	949-697-7661	Mitch.Silver@huntcompanies.com	✓
Jack	Pobuk	CCH/ENV Dept.	808-520-1167	JPobuk@honolulu.gov	✓
Connie	Chow	Oceanwide	689-9858	connie.c@oceanwide.com	✓
Kelly	Okumura	FHWA	541-2304	kelly.okumura@dot.gov	
Rich	HARTLINE	KHPC	321-7578	rhartline@delbartolodevelopment.com	✓

Former Oahu Railway and Land Company Right-of-Way

Section 106 Procedural Programmatic Agreement Discussion

Tuesday, September 19, 2017 1:00 p.m. 1001 Bishop Street, Suite 2400, Honolulu, HI 96813

First Name	Last Name	Agency / Group	Phone	Email	Requesting a Copy of the PA?
WENDY	ODA	HECO	543-4736	WENDY.ODA@HAWAIIANELECTRIC.COM	Y
GUY	INOUYE	ENV - CCH	768 8793	ginouye@honolulu.gov	Y
MATT	CHAPMAN	HDR	697-6241	matt.chapman@hdrinc.com	N
LYNN	KURASHIMA	ENV-CCH	768-8759	lkurashima@honolulu.gov	Y
Malie	Espin	WSP-Consultant	561-1324	malie.espin@WSP.com	
Ken	Tatsuguchi	HDOT			
Brent	Nakaoka	R.M. Towill	842-1133	brentn@rmtowill.com	y

OCEANWIDE RESORT

Trey Frank, ASLA
Senior Manager of Planning and Landscape

1099 Alakea Street, Suite 2400
Honolulu, Hawaii 96813-4591
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trey.f@oceanwideresort.com

Former Oahu Railway and Land Company Right-of-Way

Section 106 Procedural Programmatic Agreement Discussion

Tuesday, September 19, 2017 1:00 p.m. 1001 Bishop Street, Suite 2400, Honolulu, HI 96813

First Name	Last Name	Agency / Group	Phone	Email	Requesting a Copy of the PA?
Steve	Kelly	JAMES CAMPBELL Co.	674-3289	steve@kapiki.com	Y
Ruby	Edwards	Office of Planning	587-2817	ruby.m.edwards@hawaii.gov	Y
Rowen	Liu	HECO	543-7245	rowen.liu@hawaiianelectric.com	Y
Brian	Takeda	RMT	842-1133	briant@rmtowill.com	Y
			[redacted]	[redacted]	
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	

MEETING SUMMARY

PROJECT NAME	Former Oahu Railway and Land Company Right-of-Way, Section 106 Procedural Programmatic Agreement
DATE/TIME/VENUE	September 19, 2017 at 1:00 pm (Active Users, Use and Occupants of the Right-Of-Way)
ATTENDEES	See attached Sign-In Sheets **Signatories Present:** FHWA: Kelly Okumura HDOT: Ken Tatsuguchi, Misako Mimura, Wayne Iwamasa, Deona Naboa, Pua Aiu ACHP: n/a SHPD: n/a
DISTRIBUTION	All listed on the attached Sign-In Sheets (multiple dates and times for various interested parties)
HAND-OUTS	1. Meeting Agenda 2. Section 106 Procedural Programmatic Agreement, Regarding the Former Oahu Railway & Land Company Right of Way – Background Information 3. Limits of Procedural Section 106 PA 4. Proposed Section 106 and Section 4(f) Process by OR&L PA Tier (revised per September 13, 2017 10:00 a.m. meeting) 5. Typical Uses for the PA

MEETING DISCUSSIONS

1.0 BACKGROUND/INTRODUCTIONS

- HDOT provided the following background information:
  - The 1980 Deed that transfers the Former OR&L ROW from the federal government to HDOT triggers the federal requirement for Section 106 compliance. It also triggers other federal compliance requirements [Section 4(f), Section 7, etc.] but those are not the focus of the PA.
  - If a project proposes a crossing that is transportation-related, Section 106 and Section 4(f) have the potential to impact that project's final design and schedule. Projects affecting the former OR&L ROW should be coordinated early on with HDOT's ROW division.
    - Section 4(f) triggers avoidance requirements, so a project needs to demonstrate that there is no reasonable, prudent, or feasible alternative to what is being proposed.
    - Driveways are considered transportation-related projects.
    - Utility crossings would not trigger Section 4(f).
- The PA will not address HRS Chapter 6E.

- The Federal Highway Administration (FHWA), State Historic Preservation Division (SHPD), Advisory Council on Historic Preservation (ACHP), and HDOT are working together as signatories on this agreement.
- Attendees were asked about their interest in the PA and to provide their level of understanding or familiarity with Section 106 and NEPA, some of the responses included:
  - CCH Department of Environmental Services: familiar with the process; has two lines adjacent to the ROW that need repairs
  - AECOM: consultant, very familiar with Section 106 and NEPA
  - Rich Hartline [KHPC]: very familiar with Section 106
  - Hunt Development: has been working with Section 106 process for utility crossings for development
  - Steve Sakai [Ron Ho and Associates]: very familiar with Section 106
  - DR Horton: has lines adjacent to the ROW
  - RM Towill: consultant very familiar with the Section 106 process
  - PAR HI Refining: has an adjacent pipeline
  - Connie Chow [Oceanwide]: properties that are adjacent to the ROW
  - Steve Kelly [James Campbell Company]: developer in the area
  - Hawaiian Electric: need to continue to maintain existing / future lines
  - HCDA: helps manage development planning in the area
  - Ko Olina: property owner surrounding the ROW
  - HDR: consultant
  - Board of Water Supply: has lines within the ROW
  - IES (formerly Chevron) has pipelines on both sides of the tracks that will need continuing maintenance

2.0 REVIEW OF PROJECT LIMITS

- Attendees reviewed the *Limits of the Procedural PA* hand-out.
- WSP explained the following:
  - The PA will address federal undertakings within the continuous 40-foot ROW.
  - The former OR&L ROW is a complicated resource as it has various limits and jurisdictions. The conditions of the Deed extend from Piliokahe Gulch to Waipahu, which is the area that would be most relevant to the attendees.
  - Ms. Lesley Matsumoto (AECOM) asked how the Deed limits match to previous maps provided [pointing to figure that identifies the limits of the National Register]. WSP explained that the limits of the ROW listed on the National Register are from Lualualei Naval Road to Arizona Road (100 feet east of Fort Weaver Road). This is not the same as the limits of the Deed – Piliokahe Gulch to Central Waipahu, near Waipio Point.
  - WSP noted that from Fort Weaver Road to Central Waipahu, HDOT ownership is not continuous so there are some portions of the ROW that may not be subject to Deed conditions.
  - East of Arizona Road (100 feet east of Fort Weaver Road), FHWA, HDOT and SHPD have agreed that the ROW lacks integrity, therefore new crossings in this area are being proposed as Tier 1.

3.0 REVIEW OF PA PROCESS

- Attendees reviewed the *Proposed Section 106 and Section 4(f) Process by OR&L PA Tier* hand-out.
- WSP explained the following:

- There are three tiers of procedures being proposed in the PA. The PA would assist in streamlining the Section 106 process for undertakings that would not have an adverse effect. Depending on various conditions, such as project type, construction methodology, and project location/integrity of the ROW - the project would fall into one of the tiers.
- Tier 1 projects that would easily fall into this category are those where based on the proposed activity, they have no impact on the ROW. An example of this type of activity would be micro-tunneling to install a utility line. There would be a form to document the project's compliance with the requirements included in Tier 1.
- Tier 2 would require that project proponents reach out to consulting parties. If consulting parties do not respond within 15 working days, the project proponent can then file documentation in the same manner as Tier 1.
- If during Tier 2 discussions, consulting parties raise 106 concerns, the concerns would be recognized and addressed through mitigation and minimization efforts, if warranted. This documentation, once agreed upon by the project proponents and consulting parties would be submitted to SHPD for their review. If no response is received from SHPD, it would be assumed that SHPD concurs with the mitigation and a "no adverse effect" would be issued.
- A report tracking all projects that used this process to comply with Section 106 would be prepared by HDOT and FHWA, and submitted to SHPD annually.
- Tier 3 would include projects with an adverse effect. These projects would follow the full Section 106 consultation process in accordance with federal regulations and HDOT / FHWA local policies.
- For projects in Tier 3, Section 106 requires that projects mitigate the adverse effect. Section 4(f) requires alternatives analysis so both regulations have potential to redesign or shift a project, change construction methodology, increased costs and delays to schedule. If your project is a Tier 3 type project, contact HDOT's ROW Division early on.
- Mr. Rich Hartline (KHPC) asked if a project proponent knows that they are a Tier 3 crossing, can they approach HDOT now, in advance of the PA and start the process? WSP acknowledged that this could be an option, but cautioned that as SHPD is not in attendance to address this specific approach, the answer is uncertain. SHPD may hold off fully engaging review of a Tier 3 crossing because of the concern for cumulative impacts to the ROW. The PA and Historic Context/Integrity Assessment study provides a mechanism to address impacts to the ROW comprehensively, which addresses the cumulative effect issue.

4.0 REVIEW OF ACTIVTIES PROPOSED FOR EACH TIER

- Attendees reviewed the *Typical Uses for the PA* hand-out.
- Mr. Steve Sakai (Ron Ho and Associates) asked whether a project that already exists or is already constructed would be considered an adverse impact under Section 106?
- HDOT explained:
  - An expiring easement (even if pre-1980 and grandfathered) or a new easement for a utility that is already in place would trigger NEPA and Section 106 as it is the request for the easement that requires federal authorization, which then triggers federal regulations.
  - HDOT emphasized that even if it is a renewal of a pre-existing easement, compliance with NEPA and Section 106 is required.
  - The appropriate tier for activities should be evaluated on a case-by-case basis, but generally the current Tier 1 includes existing utilities as existing activities that do not adversely affect the ROW.
- An attendee asked whether pulling new line in existing utility duct lines would trigger federal authorization and NEPA. HDOT and FHWA noted that as long as the work remains in the existing boundaries of the easement [and is covered by the existing Use & Occupancy Agreement], then federal authorization would not be triggered.
- Mr. Steve Kelly (James Campbell Company) asked who is the decision-maker for the Section 106 process? WSP responded that federal regulations identify the federal agency as the lead agency and decision-maker,

which in this case is FHWA. When determining impacts, federal regulations also clearly outline what constitutes an adverse effect. An adverse effect is generally when the character-defining features of a historic property are modified.

- WSP explained that the PA would clearly outline applicable conditions in which an undertaking or activity would be considered "not adverse" and qualify for use in the individual tiers. For example: utility trenching could qualify for a determination of no adverse effect either under Tier 1 or Tier 2 if there is no modification to any of the character-defining features [such as the track profile or gradient], and is restored using in-kind [or historic] materials.
- HDOT is working in parallel with the development of the PA to prepare an Integrity Assessment. This assessment would be used to consider a project's impact or appropriate tier, as it will outline areas of high and low integrity, identify character-defining features, etc.
- Mr. Sakai asked if the poles for an overhead crossing would be outside of the ROW but the actual lines would cross the ROW then would the lines trigger a U&O agreement and federal authorization? HDOT and FHWA noted that it should. HDOT added that the permission to enter HDOT's ROW triggers HRS Chapter 6E. This PA only addresses Section 106, however, users should be mindful that the activities must also comply with HRS Chapter 6E. HDOT also noted that a U&O agreement may be set only for certain uses, so users should be aware of what the limits of the U&O agreement are.

5.0 QUESTIONS

- Ms. Matsumoto asked, Why now? The Deed was executed in 1980, it seems that so much time has passed, what is prompting the PA's development?
  - WSP explained that the issue came to light as a result of Section 106 consultation on federal-aid projects over the last decade, as well as the fact that the historic former OR&L ROW has been experiencing the pressure of development as regional plans are being implemented.
- Another attendee asked for clarification on in-kind replacement, indicating that the Hawaiian Railway Society requested heavier gauge rail from their development, how does that work with the requirement for in-kind replacement?
  - HDOT and WSP explained that the issue of design standards has come up in other meetings. Signatories will be looking at these standards for when certain gauges are appropriate. Attendees were advised that based on recent input, the PA may also require historic replacement over in-kind replacement and list preferred materials versus acceptable materials.
- It was asked if a limit on crossings had been determined. HDOT and WSP noted that the PA will not have a quantitative limit. The PA and the Integrity Assessment would provide the means to address the cumulative effects on the ROW.
- What if I need an easement before the PA is approved? HDOT indicated that until the PA is approved, it is anticipated that a project must go through the complete Section 106 process. FHWA makes the final determination on this.

6.0 NEXT STEPS

- It is anticipated that the Draft PA will be ready for distribution in November or December 2017. The PA would then be finalized and in place early 2018.
- Meeting summaries will be prepared for all small group meetings and a package containing all five summaries and sets of sign-in sheets for each meeting will be distributed to all meeting attendees from each small group. Everyone will see what other groups brought up for discussion and who participated.
- Once drafted the PA will be distributed to all those who expressed interest in being a consulting party or receiving a copy during the scoping period.

Former Oahu Railway and Land Company Right-of-Way

Section 106 Procedural Programmatic Agreement Discussion

Wednesday, September 20, 2017 6:30 p.m. **Ewa Elementary School Cafeteria**

91-1280 Renton Road, Ewa Beach, HI 96706

First Name	Last Name	Agency / Group	Phone	Email	Requesting a Copy of the PA?
Malie	Espin	WSP - consultant	561-1324	malie.espin@wsp.com	
Misako	Mimura	HDOT	692-7589		
Ken	Tatsuguchi	HDOT	~~692-7~~		
Rachel	Adams	WSP	566-2257	rachel.adams@wsp.com	
David	Aki		2855610		
Mike	Dega	Kipapa Gulch Estates	722-6374	dega mail at Hawaii.rr.com	
Ben	De la Cruz	—	259-1036	—	
Lori	Arizumi		256-4922	loriarizumi@gmail.com	
Sue	Mitchell	—	954-2603	smitchellinOahu@Yahoo.com.	
Wayne	Iwamasa	HDOT	692-7391	W	

Former Oahu Railway and Land Company Right-of-Way

Section 106 Procedural Programmatic Agreement Discussion

Wednesday, September 20, 2017 6:30 p.m. **Ewa Elementary School Cafeteria**

91-1280 Renton Road, Ewa Beach, HI 96706

First Name	Last Name	Agency / Group	Phone	Email	Requesting a Copy of the PA?
[illegible]	[illegible]	NA	NA	[illegible]	
Glenn	[illegible]	EB [illegible]		[illegible]	es
Francie L [illegible]	Whitfield	Area NB Member	808·221·4933	flow828@gmail.com	Yes
MICAH	CARREIRA		386 7179	CARREIRA[illegible]@GMAIL	yes
NANCY	MATSUMOTO	–	–	wings200403@yahoo.com	Yes
ANDREW	LUI-KWAN	–	808-738-6907		
Ross + Carol	Stephenson		537-1615		Yes
John Bond	Bond	Kanehili Cultural Hui	685-3045	ewaBond@gmail.com	Yes
Viola	Flores	–	222-1388	vflores.hawaii@gmail.com	
Kahea	[illegible]	FHWA	541-2314		
AGNES	MALATE	VARONA COMMUNITY	388-3019	alrmalate@gmail.com	YES

Former Oahu Railway and Land Company Right-of-Way

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C					
CLIFF	ALUNA	Hui O Pupukahi	681-9791 681-9791	ewa.aluna@yahoo.com ~~EwaAluna@Yahoo.Com~~	yes
John	Clark	Ewa Neighborhood Board		johnd@Johnclarkiii.com	
Delia	Clark				
Goldie	Samaton	~~Ewa~~ Verona Village		gbalbirona@gmail.com	Yes
Will	Espero	Senator	586-6360	senespero@capitol.hawaii.gov	yes
BRIGETTE	CALAMAAN	H.R.S./EWA VARONA	725-9528	b.calamaan@yahoo.com	yes
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	

MEETING SUMMARY

PROJECT NAME	Former Oahu Railway and Land Company Right-of-Way, Section 106 Procedural Programmatic Agreement
DATE/TIME/VENUE	September 20, 2017 at 6:30 pm (Adjacent Landowners/Ewa Community)
ATTENDEES	See attached Sign-In Sheets **Signatories Present:** FHWA: Kahaa Rezantes HDOT: Ken Tatsuguchi, Misako Mimura, Wayne Iwamasa, Deona Naboa, ACHP: n/a SHPD: n/a
DISTRIBUTION	All listed on the attached Sign-In Sheets (multiple dates and times for various interested parties)
HAND-OUTS	1. Meeting Agenda 2. Section 106 Procedural Programmatic Agreement, Regarding the Former Oahu Railway & Land Company Right of Way – Background Information 3. Limits of Procedural Section 106 PA 4. Proposed Section 106 and Section 4(f) Process by OR&L PA Tier (revised per September 13, 2017 10:00 a.m. meeting) 5. Typical Uses for the PA

MEETING DISCUSSIONS

1.0 BACKGROUND/INTRODUCTIONS

- HDOT opened the meeting by explaining that the meeting tonight is to discuss the development of the Section 106 Programmatic Agreement (PA) for the Former Oahu Railway and Land Company (OR&L) Right-of-Way (ROW). This document is being developed as an agreement between the Federal Highway Administration (FHWA) and the State Historic Preservation Division (SHPD), including the Hawaii Department of Transportation (HDOT) as the owner. The Advisory Council for Historic Preservation (ACHP) will also be a signatory to the PA.
- Mr. Glenn Oamilda introduced himself as a representative of the Ewa Beach Community Association and asked what authority HDOT had to be conducting this Section 106 meeting. Mr. Oamilda indicated that he knew Section 106 and just had a meeting last week. He did not believe that this meeting was legitimate.
- HDOT responded that FHWA has authorized HDOT to consult on their behalf for the development of the PA.
- Mr. Oamilda questioned where FHWA was, and why they were not at the meeting to facilitate. He re-asserted that the meeting is not legitimate.

- HDOT and WSP responded that FHWA intended to send a representative, but the representative did not arrive yet. Federal regulations provide for the lead federal agency to delegate authority to local agencies and consultants to conduct Section 106 consultation on their behalf. FHWA has issued this letter to SHPD and consulting parties would have been informed in the initial invitation to consult. The project team will be happy to send these to him after the meeting. [Note: Letter from FHWA to SHPD, Authorizing HDOT to consult on behalf of FHWA for the purpose of developing the Section 106 PA was emailed by FHWA to Mr. Oamilda on September 27, 2017]. WSP added that the project team tonight is here to have a dialogue and is not here to be adversarial.
- Mr. Oamilda responded that since HDOT and WSP do not have the letters with them here tonight, the meeting is not legitimate.
- Mr. Roger Evans indicated that he would like to thank HDOT and their team for coming. He has numerous questions as he is trying to understand what HDOT is proposing. [Note: Due to continuous interruptions, Mr. Evans left the meeting. Mr. Evans has followed-up with a letter dated September 25, 2017 to HDOT indicating his frustration in how he was treated at the meeting and provided his questions. HDOT has issued an apology to Mr. Evans and provided responses to his individual questions.]
- Upon FHWA's arrival, Mr. Kahaa Rezantes (FHWA) verified the legitimacy of the meeting and that HDOT has authority to consult for the purposes of Section 106.
- HDOT asked meeting attendees to introduce themselves and explain their interests in meeting. Meeting attendees introduced themselves. It was noted that attendees represented a wide-cross section of the Ewa Community from adjacent landowners, neighborhood board members, historic preservation interests, and cultural interests.
- Mr. John Bond (Kanehili Cultural Hui) asked whether the Hawaiian Railway Society was present. And expressed concern for holding separate meetings. WSP explained that there are numerous interests regarding the Former OR&L ROW and a large group would have been difficult to have meaningful conversations and to consult with. Groups were split to allow for discussion. Historic preservation folks have different concerns from the users so we tried to cater to the interests of the group. HRS had their meeting last week in town with folks that had concerns for preservation as that is based on HRS' preferred time and place to meet.
- Mr. Bond indicated that the rail project split meetings between groups and he did not feel that it was a favorable approach. WSP reiterated that meeting locations and times were based on what was known of the groups' preferences.
- Mr. Oamilda asked where OHA, DHHL and the other Section 106 stakeholders are? Mr. Oamilda discounted the legitimacy of the meeting as not all Section 106 stakeholders are present.
- Meeting attendees asked Mr. Oamilda to allow HDOT and their consultant to continue as they would like to understand what the PA is about.
- Mr. Rezantes explained that HDOT is authorized to conduct Section 106 for the purpose of developing the PA. Please allow the meeting to continue by holding the questions and interruptions for now.
- Mr. Ross Stephenson asked that it be noted that the State Historic Preservation Division (SHPD) is not in attendance tonight, as it is important to recognize that they should be there. It was explained that SHPD attended a previous small group meeting and has been involved in the process of developing the PA.
- Mr. Bond and other community members expressed concern that HRS was not represented, and that HDOT is trying to interfere with their ability to run and maintain the ROW. Another community member clarified that HRS received a letter that day from HDOT regarding this issue. HDOT explained that that is not a Section 106 issue but rather a Use and Occupancy issue between HDOT as the owner and HRS as an operator.
- It was asked if HDOT is trying to push HRS off the ROW and terminate their Use and Occupancy Agreement. Community members indicated that they see the two issues as related. WSP and HDOT responded that HRS has a Use and Occupancy Agreement with HDOT that is active and has not been terminated. The issue that was affecting their maintaining the ROW was a Hawaii Revised Statutes Chapter 6e issue that has a different set of triggers, which the community members acknowledged had been

resolved earlier in the day. WSP continued to explain that tonight's meeting is to discuss Section 106, which is not preventing HRS from maintaining the ROW.

- WSP and HDOT provided the following explanation on the need for developing a Section 106 PA:
  - The General Services Administration transferred the deed for the OR&L ROW to HDOT to build the Leeward Bikeway, a pedestrian and bike path.
  - Use of federal funds for a project, the need for a federal permit, or a request to issue an easement for use and occupancy of the ROW is a trigger for NEPA and Section 106.
  - The PA is intended to streamline the Section 106 process for projects with no impacts.
  - It was reiterated that this meeting was intended to gather input on the PA.
  - The PA doesn't address the operation of the railway. It is intended to address the ROW and the character-defining features of this historic resource.
  - FHWA, SHPD, HDOT and ACHP are signatories to the agreement.
- Mr. Bond asked if the National Trust for Historic Preservation (NTHP) and HRS could also be signatories. WSP responded that signatories have ownership roles and responsibilities in carrying out the agreement. Neither of these organizations have such a direct role or responsibility.

2.0 REVIEW OF PROJECT LIMITS

- Attendees reviewed the *Limits of the Procedural PA* hand-out.
- WSP explained the following:
  - The limits of the PA include the 40' ROW from Mohihi Street in Nanakuli to near Waipio Point Peninsula, roughly 15 miles. The limits for the ROW included on the National Register are different.
  - The National Register portion goes from Lualualei Naval Road to the vicinity of Fort Weaver Road. Arizona Road is a small path that marks the eastern boundary of the National Register.
  - Deed trigger for Section 106 is from Piliokahi Gulch to Waipio Point/Central Waipahu. Federal authorization and clearances are required before allowing easements or Use and Occupancy Agreements.
  - The portion of the ROW that is east of Arizona Road is not listed on the National Register. It lacks integrity so projects in that area could be more intensive / extensive and still be considered as Tier 1 projects.
- Mr. Stephenson asked if an Archaeological Study was being performed to identify subsurface resources along the entire corridor of the ROW. WSP indicated that a Historic Context and Integrity Assessment is being developed concurrently with the PA. The study identifies the historic context and character-defining features of the resource. However, the focus of the study is on the former OR&L ROW, and not archaeology. It was noted that this is also a limitation of the PA.
- Mr. Stephenson followed-up by asking that if the project would require ground disturbing activities, would an Archaeological Study be required? The response was that it would depend on what SHPD requires.
- Mr. Stephenson commended FHWA and HDOT for undertaking the historic context study, but recommended that a comprehensive archaeological study be conducted as well. WSP thanked Mr. Stephenson for his comment and indicated that it would be noted.

3.0 REVIEW OF PA PROCESS

- Attendees reviewed the *Proposed Section 106 and Section 4(f) Process by OR&L PA Tier* hand-out.
- WSP explained the following:
  - Focus of the PA is on Tier 1 and Tier 2, which are intended for activities or projects that are not likely to adversely affect the ROW. An example of a Tier 1 project might be a utility line going under the ROW using micro-tunneling for construction in an area of low archaeological risk.

  - For Tier 1 the project proponent must submit supporting documentation to FHWA and HDOT which demonstrates that the project complies with the requirements of the tier. No public notice or consultation letters would be issued prior to the undertaking.
  - FHWA and HDOT would submit an annual report to SHPD. Every two years, signatories would meet to review the undertakings and use of the PA. Consulting parties would also be invited to this meeting.
  - For an example of a Tier 2 project, consider a project that would use trenching, but in an area of low integrity and utilizing mitigation / minimization measures as a condition of their construction.
  - For Tier 2 projects, there would not be a public notice or newspaper advertisement, however consulting parties would be notified. Consulting parties would have 15 working days to respond to project proponents with concerns.
  - Consulting parties are all those that identify themselves to review undertakings associated with the PA. If any attendees wish to be a consulting party please notify HDOT and provide their preferred method of contact.
  - If consulting parties have a Section 106 concern, the project proponent would address the concerns. Any agreed upon conditions would be documented and sent to SHPD for concurrence. SHPD would then have 15 working days respond with concerns. If no response is received, then a "no adverse effect" determination can be assumed.
- Tier 3 projects are those that would cause an adverse effect to the ROW or its character-defining features. An example would include changing the materials (e.g., replacing with asphalt instead of coral). Tier 3 projects would go through the standard Section 106 process.
- Even though Tier 3 is the same as the standard Section 106 process, it is recognized in the PA for consistency and awareness.

4.0 REVIEW OF ACTIVITIES WITHIN EACH TIER

- Attendees reviewed the *Typical Uses for the PA* hand-out.
- In discussing projects or activities that would have an adverse effect on the ROW, WSP noted that this is in regards to the ROW and its character-defining features. FHWA and HDOT are interested in feedback on the activities that have been listed in each tier and conditions that might change whether an activity is appropriately categorized.
- Mr. Oamilda noted that he wants to be informed anytime there is ground disturbance activity, as he is concerned with the potential for inadvertent finds.
- WSP asked about a situation where micro-tunneling is used in an area that is known to be low risk for archaeology.
- Mr. Oamilda indicated that he would want to be consulted as any ground disturbance would be an adverse effect.
- WSP asked Mr. Oamilda to clarify whether that would be an adverse effect to the Former OR&L ROW or whether the concern is for archaeology or other resources.
- Mr. Oamilda indicated both.
- Mr. Bond noted that he notified SHPD of a large underground cave in the vicinity of Ka Makana Alii but that nothing was done to preserve it; he believes it has been filled.
- Mr. Oamilda indicated that Kalaeloa is culturally-sensitive, just shoveling dirt is bound to find something.
- WSP asked if there are specific areas of cultural concern within the 40' ROW or the vicinity.
- Mr. Oamilda indicated that the Ewa Plain all the way to Nanakuli is full of karst. It also extends to Pearl Harbor. Any digging, including underground, needs to be reviewed by an archaeologist.

- WSP explained that Mr. Bond and Mr. Oamilda's comments would be noted. All input will be evaluated by the signatories. If anyone would like to be a consulting party to review undertakings or the draft PA, the email address on the back of the page with the blue boxes can be used to make that request.
- Mr. Oamilda stated that the PA is not an assessment document if it doesn't address underground resources. It was noted that HDOT would discuss this with FHWA and SHPD.

5.0 NEXT STEPS AND QUESTIONS

- Meeting summaries will be prepared for all small group meetings and a package containing all five summaries and sets of sign-in sheets for each meeting will be distributed to all meeting attendees from each small group.
- Once drafted the PA will be distributed to all those who expressed interest in being a consulting party or receiving a copy during the scoping period.

Letter No. HWY-DE 2.9741 was sent to the following groups, dated November 17, 2017:

- Via Email
    - Ms. Maryann Naber, Advisory Council on Historic Preservation – Senior Program Analyst
    - Mr. David Clarke, Federal Highway Administration
    - Kelly Okumura, Federal Highway Administration
    - Adriana Windham, Federal Highway Administration
    - Meesa Otani, Federal Highway Administration
    - Ms. Elizabeth Merritt, National Trust for Historic Preservation – Deputy General Counsel
    - Mr. Steve Vendt, Hawaiian Railway Society – Operations Manager
    - Ms. Kelly Higa, Hawaiian Railway Society
    - Ms. Kiersten Faulkner, Historic Hawaii Foundation – Executive Director
    - Ms. Carolyn Weygan-Hildebranz
    - Dr. Susan Lebo, Ph.D., State of Hawaii Historic Preservation Division – Archaeology Branch Chief
    - Mr. William Aila, Jr., State of Hawaii Department of Hawaiian Homelands – Deputy of the Chair
    - Mr. Bob Freitas, State of Hawaii Department of Hawaiian Homelands
    - Ms. Tesha Malama, State of Hawaii Department of Business, Economic Development, and Tourism, Hawaii Community Development Authority – Kalaeloa Director of Planning and Development
    - Ms. Germaine Salim-Hagihara, State of Hawaii Department of Business, Economic Development, and Tourism, Hawaii Community Development Authority – Project Management Engineer
    - Mr. David Lee, City and County of Honolulu, Department of Design and Construction, Land Division
    - Ms. Virginia Sosh, City and County of Honolulu, Department of Transportation Services
    - Ms. Michele Otake, D.R. Horton
    - Ms. Lesley Matsumoto, AECOM
    - Mr. Steve Sakai, Ronald N.S. Ho & Associates, Inc.
    - Mr. Burkley Showe, TRG / Koolua Development
    - Mr. Shane McMonagle, Ko Olina
    - Mr. Louie Tamoria, Par Hawaii Refining – Senior Project Engineer
    - Mr. Mitch Silver, Hunt Development Group – Senior Vice President, Hawaii Division
    - Mr. Jack Pobuk, City and County of Honolulu, Department of Environmental Services
    - Mr. Rich Hartline, DeBartolo Development / KHPC
    - Ms. Wendy Oda, Hawaiian Electric Company – Land and Rights-of-Way
    - Mr. Guy Inouye, City and County of Honolulu, Department of Environmental Services
    - Mr. Matt Chapman, HDR, Inc.

- Mr. Lynn Kurashima, City and County of Honolulu, Department of Environmental Services
- Mr. Brent Nakaoka, R.M. Towill Corporation
- Mr. Trey Frank, Oceanwide Resort – Senior Manager of Planning and Landscape
- Mr. Steve Kelly, James Campbell Company, LLC
- Ms. Ruby Edwards, Office of Planning – Planner
- Mr. Rouen Liu, Hawaiian Electric Company – Permits Engineer
- Mr. Brian Takeda, R.M. Towill Corporation
- Mr. Wilson Rivera, IES
- Ms. Connie Chow, Oceanwide Resort
- Mr. Lester Fujikami
- Ms. Maeda Timson
- Mr. Michael Domion
  City and County of Honolulu, Board of Water Supply – Capital Projects Division, Support Branch
- Mr. Mike Jones
  D.R. Horton
- Senator Will Espero, 19th Senatorial District
- Mr. Kahaa Rezantes, Federal Highway Administration
- Mr. Mike Dau, Kipapa Gulch Estates
- Ms. Lori Arizumi
- Ms. Sue Mitchell
- Mr. Roger Evans
- Mr. Glenn Oamilda, Ewa Beach Community Association
- Ms. Francie Whitfield, Aiea Neighborhood Board Member
- Mr. Micah Carreira
- Ms. Nancy Matsumoto
- Mr. John Bond, Kanehili Cultural Hui – President
- Ms. Viola Flores
- Ms. Agnes Malate, Varona Community
- Mr. Cliff Ahona, Hui O Pupu Ao Ewa
- Mr. John Clark, Ewa Neighborhood Board
- Ms. Delia Clark
- Ms. Goldie Saniatan, Varona Village
- Ms. Brigette Calaman, Hawaiian Railway Society / Ewa / Varona Village
- Mr. & Ms. Ross & Carol Stephenson
- Mr. Andrew K. Lui-Kwan

- Via Post
  - Mr. David Aki
    91-1001 Keanui Drive, Unit 421
    Ewa Beach, HI 96706
- Attempted, but no post / email contact information:
  - Mr. Ben Dela Cruz