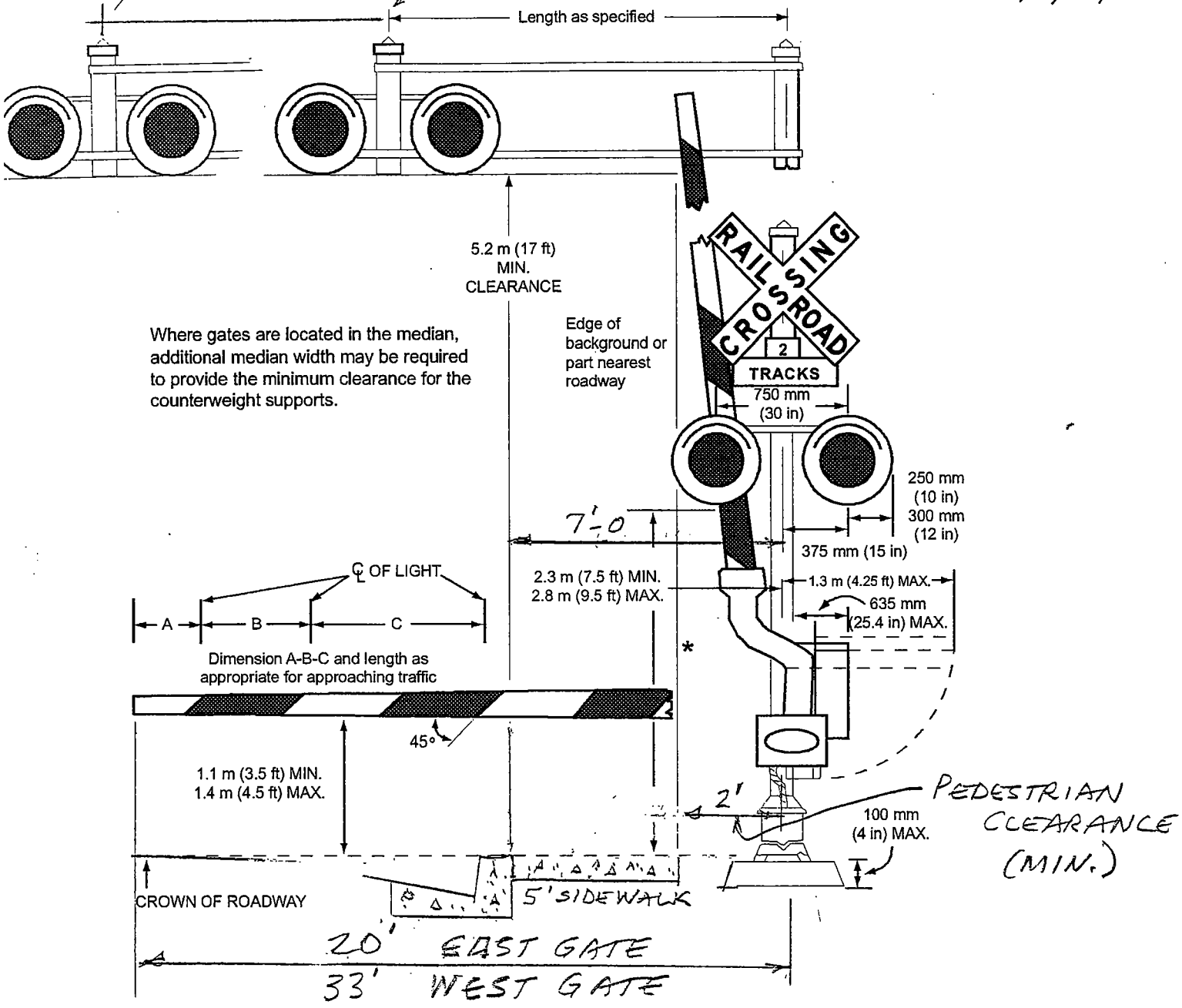


December, 2000

Page 8D-2

WSW.
4/30/01
REVISED
10/4/02

Figure 8D-1. Composite Drawing of Active Traffic Control Devices for Highway-Rail Grade Crossings Showing Clearances



*For locating this reference line at other than curb section installation, see Section 8B.02.

Sect. 8D.01

(MUTCD)

TRACK

NEW SIDEWALK

BACK OF CURB

PROPERTY LINE

CANTILEVER FOUNDATION

WEST GATE FOUNDATION

PARKING LOT

THRU LANE

LEFT TURN LANE



NOTE: EAST GATE SIMILARLY PLACED

SCALE: 1" = 5'-0"

NSW 10-4-02





Local Agency Railway Agreement Federal Aid Safety Projects Highway-Railway Grade Crossing Warning Devices

Local Agency City of Snoqualmie Project Number STPXP-0008(007)

Railway Snoqualmie Valley Railroad Agreement Number LA 4996

The above parties having complied, or hereby agreeing to comply, with the terms and conditions set forth in (1) Title 23, U.S. Code, Highways, (2) the regulations issued pursuant thereto, and (3) the Policies and Procedures promulgated by the Washington State Department of Transportation, relating to grade crossing warning devices, hereby agree to proceed with the accomplishment and completion of the project hereinafter described.

Project Description

Local Agency Road Name River Street

Location West of intersection with SR 202

Railway Line Name Snoqualmie Valley Railroad

Location River Steet at intersection with SR 202

COPY

MAILED
2.21.03

Description of Work

Installation of crossing gates; signal light cantilever; warning lights, bell, signage; and associated control systems.

The site plan attached hereto as Exhibit C further describes the work.

Construction is estimated to be completed in 365 days, following execution of this agreement and authorization to proceed.

Estimate of Cost

Type of Work	Labor	Non-Labor	Total
1. Install Warning Devices (Type)	34,300.00	137,200.00	171,500.00
a. Freight Material Handling			
b. Equipment Rental			
c. Expenses			
d. Salvage			
e. Other WSDOT Oversight	1,000.00		1,000.00
2. Engineering and Accounting	12,500.00		12,500.00
3. Liability Insurance			
4. Labor Surcharge			
5. Other Work by Railroad* <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Exhibit A attached hereto			
6. Total Project Costs	47,800.00	137,200.00	185,000.00

* If detail is required, attached Exhibit A. Insert Exhibit A totals in this line.

The above parties further stipulate that they agree to and will comply with the provisions set forth in the reverse hereof and made a part of this agreement. Where a franchise or permit exists, the parties shall determine to what extent the franchise or permit is superseded by this agreement. Such determination should be in writing and attached as part of the agreement.

Repair or replacement of damaged or obsolete signals. The cost of repair or replacement of the signals shall be borne on the ratio of 100 percent Local Agency and 0 percent railway.

This agreement shall inure to the benefit of and be binding on the parties hereto, their successors and assigns.

Adopted by Resolution/Ordinance No. _____

Railroad Official [Signature]

Local Agency Official [Signature]

Title EXECUTIVE DIRECTOR

Date City Administrator

Date 19 FEB 03

I. Scope of Work

The Railway will provide all the work, labor, materials, and services to install the warning devices hereinafter called "signals" as described and set forth in the "Project Description" and "Estimate of Cost."

The Local Agency shall perform those services necessary to facilitate the processing of all necessary documents required for the orderly progress of the project in accordance with the policies and procedures of the Washington State Department of Transportation (hereinafter called "Department") and the Federal Aid Policy Guide of the Federal Highway Administration (hereinafter called "FHWA.")

The Local Agency shall install without expense to the Railway advance warning signs, standard pavement markings for railroad crossings, and guardrails or barriers to protect the signals from highway traffic when such protection is required.

II. Funding

The project will be financed in conformity with FHWA regulations adopted for safety improvement projects authorized in the Transportation Equity Act for the 21st Century.

III. Payment

Upon written authorization by the Local Agency, the Railway may proceed with the project. Following execution of this agreement, progress bills may be submitted to the Local Agency for the cost of labor, materials, and other services provided to date of billings and as shown in the Estimate of Cost or supplemental estimates of cost furnished by the Railway and accepted by the Local Agency, the Local Agency shall pay such progress billings promptly upon receipt. Final and detailed billing of all incurred costs shall be made by the Railway within one year of project completion, and the Local Agency shall pay all eligible amounts of such bill, less progress payments previously made.

The Local Agency agrees to reimburse the Railway for the amount shown in the Estimate of Cost for the actual cost of labor, materials, and other services furnished by the Railway pursuant to this agreement, provided the costs are eligible.

IV. Availability of Records

All project records in support of all costs incurred and expenditures are to be kept and maintained by the Railway and by the Local Agency in accordance with Subchapter B, Subpart H or Section 140.922(c) of the C.F.R.

The records shall be open to inspection by the Department and FHWA at all reasonable times and shall be retained and made available for such inspection for a period of not less than three years from the final payment of any funds to the Railway.

V. Maintenance of Facility

Upon completion of installation, the Railway shall operate and maintain the signals as required by law. The Local Agency will maintain the advance warning signs, the standard pavement markings for railroad crossings, and protecting barriers or guardrails at Local Agency expense. However, in the event that any existing or future legislation makes federal, state, or other public funds available for the operation, maintenance, repair, or replacement of signals at grade crossings, the Local Agency shall cooperate with the Railway to secure said funds for the operation, maintenance, repair, or replacement of the signals installed pursuant hereto. This agreement may be supplemented and amended as necessary for the operation and maintenance of said signals to qualify for such funds.

VI. Repair or Replacement of Damaged or Obsolete Facility

In the event one or more of the signals installed under this agreement are partially or wholly destroyed and its or their replacement value or cost of repairing cannot be recovered from the person or persons responsible for such destruction, then in

that event, cost of repair of the signals or cost of installation of a new signal or signals shall be borne on a ratio agreed upon by the Railway and the Local Agency as specified on the front hereof.

If the damage to a signal is caused by highway traffic, Local Agency will cooperate with the Railway in determining the location and identification of the parties responsible to the extent of making accident records available.

If said damaged signals cannot, through age, be maintained or require replacement by virtue of the obsolescence, then the cost of replacing the signals shall be negotiated by the Local Agency and the Railway as specified on the front hereof, with such state, federal, or other public funds as may be available at the time such replacement becomes necessary.

VIII. Disposition of Signals No Longer Required

If for any reason, signals shall no longer be required at grade crossing and, in the opinion of the Railway and WSDOT TransAid, they are not obsolete, the state will take ownership and arrange to have them relocated to some other grade crossing. If said relocation is agreed upon by the WSDOT TransAid and the Railway, the divisions of cost of such relocation shall be agreed upon between the Local Agency and the Railways prior to such removal. If for any reason the signals shall no longer be required at the grade crossings and in the opinion of the Railway and WSDOT TransAid the signals are obsolete, the Railway may remove the signals and credit the Local Agency with the value of salvage recovered less cost of removal. The funds credited by the Railway will be reimbursed to the FHWA.

VIII. Relocation Required by Improvement

In the event that either railway or highway improvement will necessitate a rearrangement of relocation or alteration of the existing signals at said crossing, the party whose improvement causes such changes shall bear the entire cost thereof without expense to the other party. The Railway and WSDOT TransAid will make the decision as to whether the signals or control circuits will be obsolete or inadequate to accommodate an improvement, subject to conformance with the policies and procedures promulgated by the Washington State Department of Transportation relating to grade crossing warning devices.

IX. Nondiscrimination Provision

If the Railway enters into a contract or agreement with a contractor to perform any of the work which the Railway is required to perform under the terms of this agreement, the Railway for itself, its assigns, and successors in interest, agrees that it will not unlawfully discriminate in its choice of contractors and will include all the nondiscrimination provisions set forth in Exhibit B, attached hereto and made a part hereof, in any such contract or agreement.

X. Audit of Federal Aid Project

The Department, if services of a consultant are required, shall be responsible for audit of the consultant's records to determine eligible federal aid costs on the project. The report of said audit shall be in the Department's files and made available to the state and the federal government.

An audit shall be conducted by the Department's Internal Audit Office in accordance with generally accepted governmental auditing standards as issued by the United State General Accounting Office by the Comptroller General of the United States; WSDOT Directive D27-50, Consultant Authorization, Selection, and Agreement Administration; and Office of Management and Budget circular A-128.

If upon audit, it is found that an overpayment of federal money in ineligible items of cost has occurred, the Railway shall reimburse the Local Agency for the amount of such overpayment in excess of participation (see Section VIII). The funds credited by the Railway will be reimbursed to the FHWA.

WORK SPECIFICATIONS

L.A. No. 4996

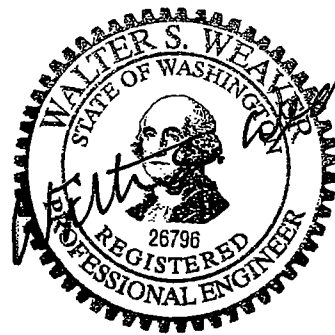
River Street Crossing Guard and Signals Installation

F.A. P. No. STPXP-0008(007)

CITY OF SNOQUALMIE

BY

Walter S. Weaver
Civil Engineer
7553 24th Avenue NE
Seattle, WA 98115
206-524-8173



EXPIRES 9/27/2003

_____ for City of Snoqualmie

_____ Date

Northwest Railway Museum

Work Specifications

Project: Installation of crossing safety devices at MP 33.0 on the Snoqualmie Valley Railroad, Crossing No. AAR/DOT 092026E, otherwise described as west of the intersection of S.E. River Street and State Route 202 (Railroad Avenue) in Snoqualmie, Washington.

Description: Work shall consist of installing crossing safety devices at the railroad crossing located and be performed in accordance with the following specifications. These work specifications supplement the specifications contained in the AREMA 2002 Manual of Railway Engineering, and the WSDOT 2002 Edition of the Standard Specifications for Road Bridge and Municipal Construction, Title 480 of the Washington Administrative Code (WAC) prepared by the State of Washington and enforced by the Washington Utilities and Transportation Commission (WUTC), The 2000 Manual of Uniform Traffic Control Devices (MUTCD), and Chapter 49, Part 234 of the Code of Federal Regulations (CFR).

Scope of Work:

Scope of work will include procurement of construction materials; components, and labor to construct a gated, signalized crossing.

General Conditions:

- 1-01 Provisions of the standard specifications shall apply to the project, except as modified herein.
- 1-01.2(1) Associations and Miscellaneous

Add the following abbreviations:

- AREMA - American Railway Engineering and Maintenance of Way Association
- NRM - Northwest Railway Museum
- RR - Railroad

1-01.3 Definitions

Add the following definitions:

- City: City of Snoqualmie
- Engineer: This term shall mean those persons designated as Engineer representing the Railroad or the City.
- OTM Other Track Material: Joint bars, track bolts, nuts, washers, plates, anchors, clips, and spike used in the construction of track.
- Owner: Northwest Railway Museum.
- Project: Work defined in 1.04.1 of these specifications.
- Railroad: Northwest Railway Museum.
- Railway: That portion of the right of way within the outside limits of the side slopes including the track and structures, and their embankments.
- Standard Plans: Those plans or drawings prepared by manufacturers, associations, or public agencies for use on this and other project.
- Track: Railroad structure consisting of rail, ties, OTM, and ballast.
- Work Specifications: The special conditions and amendments to the AREMA and MUTCD manuals and WSDOT Standard Specifications.

1-02 Bid Procedures and Conditions

All provisions of the Standard Specifications shall apply to this Project, except as modified herein.

1-02.1 Pre-Qualification of Bidders. This section is deleted from the Standard Specifications as it applies to this project.

1-02.2 Plans and Specifications.

The Owner will transmit two reproducible copies of the Plans and Specifications as they apply to this project to potential bidders. Bidders have a responsibility to indicate their interest. It will be the responsibility of prospective bidders to reproduce as many copies as necessary for the review of subcontractors and Suppliers.

1-02.7 Bid Deposit.

This section is deleted from the Standard Specifications as it applies to this project.

1-02.8 No Collusion Declaration and Lobbying Certification.

This section is deleted from the Standard Specifications as it applies to this project.

1-02.12 Public Opening of Proposals.

This section is deleted from the Standard Specifications as it applies to this project.

1-03.2 Award of Contract.

Substitute 5 working days instead of 45 calendar days.

1-03.3 Execution of Contract.

Substitute 5 working days instead of 20 calendar days.

1-03.6 Return of Bid Deposit.

This section is deleted from the Standard Specifications as it applies to this project.

1-03.7 Judicial Review.

Substitute King County for Thurston County.

1-04 Scope of Work.

All provisions of this section of the Standard Specifications shall apply to this project except as modified herein.

1-04.2 Coordination of Contract Documents, Plans, Special Provisions, Specifications, and Addenda.

Replace the second paragraph with: Any inconsistency in the parts of the contract shall be resolved by the following order of precedence (i.e., 1 presiding over 2, 3, 4, 5, & 6; 2 presiding over 3, 4, 5, & 6; and so forth):

- (1) Addenda
- (2) Proposal Form
- (3) Work Specifications
- (4) AREMA Manual
- (5) MUTCD
- (6) Amendments to the Standard Specifications
- (7) Standard Specifications
- (8) Standard Plans

1-05 Control of Work.

All provisions of this section of the Standard Specifications shall apply to this project.

1-07.5(5) Environmental Remediation

The following are restrictions for this work:

- A spill response kit designed for rapid response for cleanup of hazardous material spills shall be located on-site. At a minimum, this kit shall include materials for containment and cleanup of petroleum products.
- Temporary and Permanent ground cover measures shall be provided in a timely manner to protect disturbed areas. Cover methods include mulch, gravel, erosion control blankets, plastic covering, and sodding. Disturbed areas shall not be left unprotected for more than 7 days during the summer dry season (roughly July 15 through September 30) nor more than 2 days during the rest of the year.
- The following are hazardous spill response numbers:

Washington Department of Ecology	425-649-7000
City of Snoqualmie	911

1-06 Control of Material.

All provisions of this section of the Standard Specifications shall apply to this project.

1-07 Legal Relations and Responsibilities to the Public.

All provisions of this section of the Standard Specifications shall apply to this project except and modified herein.

1-07.9 Wages.

This section is deleted from the Standard Specifications as it applies to this project.

1-07.23 Traffic Control.

All provisions of this section of the Standard Specifications shall apply to this project except and modified herein.

1-07.23(2) Construction and Maintenance of Detours

City shall provide traffic barriers, detour signs and labor to place devices for the complete closure of railroad crossing to street traffic for 5 working days, upon 2 working days notice from Railroad.

1-07.23(3)A Flagging, Signs, and All Other Traffic Control Devices - General

Add the following: City of Snoqualmie is fully responsible for flagging requirements if partial closure of roadway is required.

INSULATED JOINTS

8-31.1 Description

The work in this section shall consist of the Contactor providing all materials, equipment, and labor to install new 115RE insulated joints at the end of the welded rail section and at the last 90RB joint within the "constant warning system" track limits.

8-31.2 References

The 2002 Manual for Railway Engineering, prepared by the AREMA Manual shall govern the work in accordance with Section 1-04.2 of these Work Specifications.

8-31.3 Submittals

Submittals shall be submitted to the Engineer in accordance with Section 1-06 "Control of Materials" of these Work Specifications. Submittals shall include, but not be limited to:

- Product data on insulated joints.

- Procedure for the installation of insulated joints.

8-31.4 Materials

Insulated joints shall be "Toughcoat Insulated Joint" manufactured by Allegheny Rail Products, Pittsburgh, Pennsylvania; "Poly-Insulated Rail Joint" manufactured by Portec, Inc., of Pittsburgh Pennsylvania, or approved equal. Insulated joints shall be the proper size to fit the rail at the location of the joint.

8-31.5 Construction Requirements

Insulated joints shall be installed in accordance with the guidelines set forth by the insulated joint manufacturer.

8-31.6 Measurement

Insulated joints shall be measured per each joint installed in accordance with these Work Specifications and to the limits shown on then plans.

8-31.7 Payment

The following work item shall be paid for at the unit price established in the Schedule of Contract Prices. The work associated with the removal of existing insulated joints shall be considered as incidental to pay item 8-36.7, Crossing Safety Devices.

ELECTRICAL RAIL BONDS

8.32.1 Description

The work in this section shall consist of the Contactor removing old head bonds within the existing signal block and providing all materials, equipment, and labor to install new dual electrical rail bonds at all uninsulated rail joints within the signal block, or as directed by the Engineer.

8.32.2 References

The 2002 AREMA Manual shall govern the work in accordance with Section 1-04.2 of these Work Specifications.

8-32.3 Submittals

Submittals shall be submitted to the Engineer in accordance with Section 1-06 "Control of Materials" of these Work Specifications. Submittals shall include, but not be limited to:

- Product data on electrical rail bonds
- Procedure for the installation of electrical rail bonds.

8-32.4 Materials

Electrical rail bonds shall be 3/16-inch head bonds manufactured by Erico, Inc., Solon, Ohio or approved equal.

8-32.5 Construction Requirements

Two electrical rail bonds shall be installed in accordance with the guidelines set forth by the insulated joint manufacturer.

8-32.6 Measurement

Electric rail bonds shall be measured per each new bond installed in accordance with these Work Specifications and to the limits shown on then plans.

Payment

The following work item shall be paid for at he unit price established in the Schedule of Contract Prices. The work associated with existing insulated joint removal shall be considered incidental to pay item 8-36.7, Crossing Safety

Devices.

8-36 CROSSING SAFETY DEVICES

8-36.1 Description

8-36.1(1) Description of Work

The work in this section shall consist of the Contractor providing all materials, equipment and labor to install crossing safety devices. The work shall include, but not be limited to:

- Installation of a 33-foot automatic railroad gate with flashing lights on the west side of grade crossing.
- Installation of a 20-foot automatic railroad gate with flashing lights on the east side of grade crossing.
- Installation of a 27-foot walkout cantilever with flashing light sets over each eastbound lane.
- Installation of post-mounted flashing light signals on both sides of the grade crossing.
- Installation of a solid-state audio warning device (bell).
- Installation of a railroad signals control bungalow.

8-36.1(4) Track

Most of the railway consists of 33 foot lengths of 90-lb rail on wood cross ties. The grade crossing at S. E. River Street is 115RE welded rail on wood crossties. A 100RE transition rail with bolted joints is in place on the south side of the crossing.

8-36.3 Submittals

Submittals shall be submitted to the Engineer in accordance with Section 1-06 "Control of Material" of these Work Specifications. Submittals shall include, but not be limited to:

- Shop drawing of the general layout of the crossing safety device components.
- Shop drawings of the crossing safety device components.
- Product data on all crossing safety device components.
- Wiring diagram.
- Installation procedure.
- Testing procedure.

8-36.4 Materials

All materials shall be new and in accordance with Section 1-06 "Control of Material" of these Work Specifications. The Engineer reserves the right to inspect all crossing safety device materials before their installation.

8-36.5 Functions and Requirements

8-36.5(1) Signal Functions

The new crossing safety devices shall include, but not be limited to, the following functions:

- There shall be one walkout cantilever to allow 2 lights (in each direction) over each eastbound lane of traffic.
- There shall be two Type S-40 gates, Safetran or equal, with arms to cover one lane and one to cover two lanes.
- A two-way light set shall be installed on each gate post .
- All lights shall be LEDs.
- Gates shall be equipped to initiate gate operation 8 seconds after activation of flashing lights.
- There shall be two electronic bells, one in each signal quadrant. The bells shall deactivate when the gates reach the horizontal position and shall activate when the gates ascend.
- There shall be a power on light placed on top of the cantilever so as to be visible from an approaching train.
- There shall be a solid-state event recorder.
- When the crossing signals activate, the gates will drop and the post-mounted flashing lights and the audio warning will activate.
- When the passing train is clear of the crossing, the gates will rise, the post-mounted flashing lights will deactivate, the audio warning will deactivate.
- All control circuits that effect the safe operation of the signal system shall be designed to operate on the "fail-safe principle".
- All aspects of the design and installation shall comply with Code of Federal Regulations Chapter 49, Part 234.

8-36.5(2) Requirements

The following requirements shall be incorporated into the crossing safety devices:

- Consideration shall be given in the design of foundations and overhead structures for all utilities in the intersection
- There shall be a 6' x 6' aluminum control shelter (bungalow) complete with lighting and heating. Conductors will be sized for regular lamps, even though LED's are specified
- Control Shelter shall be placed on the Museum property at setbacks as specified by the City.
- The elevation of the floor of the control shelter shall be 1-foot above the 100-year flood level as established by the City.
- Cantilever and gate mechanisms shall be installed on precast foundations.
- Train detection shall consist of a Harmon HXP-3 solid-state constant warning time device, or equal. This device shall be supplemented with a rusty-rail enhancement circuit approved by the Engineer.
- Light and gate operation shall utilize solid-state relays.
- All crossing safety device components shall be sufficiently bedded and anchored to prevent damage due to high winds and moderate earth movements.
- All crossing safety device components shall be designed to minimize or prevent damage due to vandalism.
- All access to vital crossing safety device components shall be protected with locks as follows: Control Shelter doors and gate mechanisms shall be protected with corrosion-resistant pad locks keyed to Masterlock key number 356. Wiring access panels and ladder guards shall be secured with bolt-type locks requiring a special wrench.
- Cantilever structure shall include a walkout platform and shall be furnished with ladders that will allow a maintenance person to safely access the walkout platforms. Ladders shall be secured from unauthorized use with ladder guards.

- There shall be two extra replacement gates arms supplied to the Museum.

8-36.6 Measurement

Installation of crossing safety devices shall be measured per lump sum of crossing safety devices installed in accordance with these Work Specifications and to the limits shown on the Plans

8-36.7 Payment

In accordance with Section 1-04.1 "Intent of the Contract" of the Standard Specifications, the following work items shall be paid for at the unit prices established in the Schedule of Contract Prices.

Pay Item	Unit of Measurement
Crossing Safety Devices	Lump Sum



Phone (425) 831-4919
 Fax (425) 831-4798

CITY OF SNOQUALMIE
Public Works Department
 P.O. Box 987, Snoqualmie, Washington 98065
 www.snoqualmie.wa.us

LETTER OF TRANSMITTAL

TO: WSDOT
Local Programs Engineer
PO Box 330310
Seattle, WA 98133-9710
Attn: Sharon Golphenee

Date: <u>2/21/03</u>
Attention: <u>Dave Scott</u>
RE: <u>LA-4996 RR Crossing Devices</u>

WE ARE SENDING YOU:

- Copy of Letter/Agreement Original Contract/Agreement Samples Application
 Specifications Ordinance/Resolution # _____ Other Plans & Specs

VIA:

- Mail Certified Mail Fax Courier Hand Delivered By _____

Copies	Date	Description
2	02/21/03	Local Agency Railway Agreement Form 140-044 EF
2	02/21/03	MUTCD spec sect. 8D.01
2	02/21/03	Work Specifications L.A.No. 4996

THESE ARE TRANSMITTED AS INDICATED BELOW:

- Urgent. Action Required by _____ As Requested For Approval
 For Your Review and Comment For Your Use Approved as Noted
 Approved as Submitted Approved as Noted Other _____

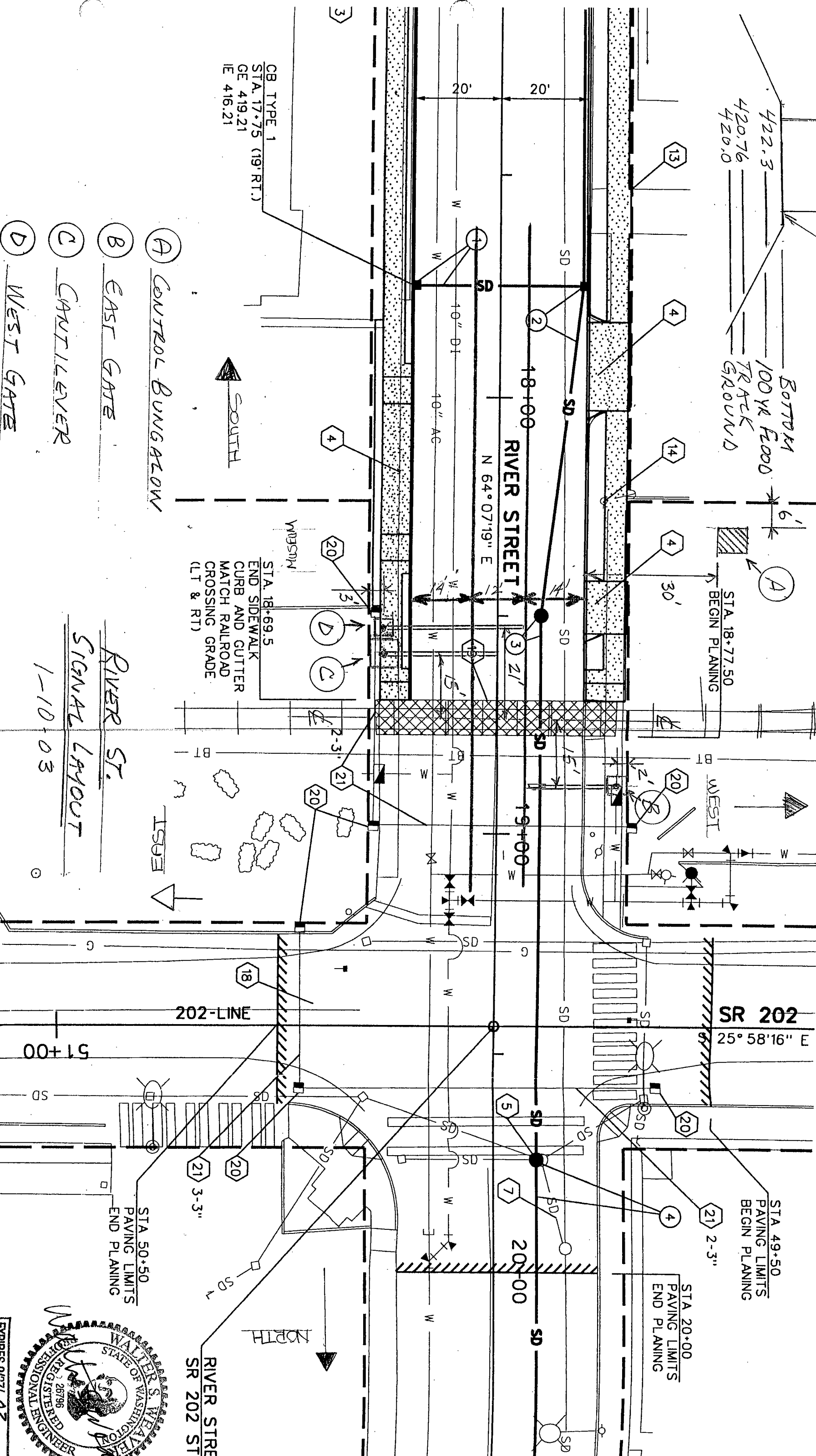
REMARKS:

River Street Crossing Guard and Signals Installation F.A.P. No. STPXP-0008(007)
City of Snoqualmie

Control
BUNGALOW

422.3
420.76
420.0
BOTTOM
100 YR FLOOD
TRACK
GROUND

NE 1/4, SEC. 31, T. 24N., R. 8E., W.M.



CB TYPE 1
STA. 17+75 (19' RT.)
CE 419.21
IE 416.21

STA. 18+69.5
END SIDEWALK
CURB AND GUTTER
MATCH RAILROAD
CROSSING GRADE
(LT & RT)

STA. 18+77.50
BEGIN PAVING

SR 202
25° 58' 16" E

STA. 49+50
PAVING LIMITS
BEGIN PAVING

STA. 20+00
PAVING LIMITS
END PAVING

STA. 50+50
PAVING LIMITS
END PAVING

RIVER STREET
SR 202 STA

(A) CONTROL BUNGALOW

(B) EAST GATE

(C) CANTILEVER

(D) WEST GATE

RIVER ST.

SIGNAL LAYOUT

1-10-03

