Washington State Department of Transportation

Publications Transmittal

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PT 12-073	September 2012
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Remarks and Instructions

What has changed in the Plans Preparation Manual for September 2012:

PPM Comment Form: Added a Comment Form for users.

Division 1: Added a new section to Right of Way details related to the use of line tables. Added new text to the Access Approach Schedule. Expanded Basis of Bearings and Limit of Plan sections under Drawing Standards and added aquatic features note. Added new sections related to Superseded Plans, Parcel Acquisition Plans, and Exhibit Maps. Updated minor notes throughout the division.

Division 1 Example Plans: Added cross-reference notes to all ROW plan examples related to appropriate sections in Division 1. Replaced ROW plan example 1-1. Added ROW plan examples 1-16a thru 1-16e to identify use of line tables.

Division 4: Corrected references to the *Electronic Engineering Data Standards* manual throughout the division. Reorganized numerous sections to better align with the Plan Sequence List. Added some ADA text on pages 4-42 and 4-47.

Division 4 Example Plans: Added several new example plans to introduce ADA to the *Plans Preparation Manual*. Renumbered the reference plan examples due to newly added plan sheets.

Division 6: Changed GSP numbering on page 6-3, Section 600.03(3-2).

Division 7: Reorganized the entire division to better align with the order in the Standard Spec book. Better organized and/or added new text/comments to the following sections:

700.01(5) on Proprietary Items; 700.02(4) on Borrow Material; 700.05(4) on HMA for Approach; 700.08(2) on Roadside Restoration and Considerations; 700.09(6) on Salvaged Items (newly added section that corresponds with the *Design Manual* Exhibit 300-4); 700.09(9) on Other Contract Consideration (changed "state-supplied" to "state-furnished" to better align with RCWs, CFRs, and the *Design Manual*).

Division 8: Removed graphs, charts, and tables that are repeated and referenced in the *EBASE Manual*.

Appendix 2: Made Vacant. Included website and reference to Division 6.

Appendix 5: Corrected Division 4 reference. Corrected a line style.

Design Office Signature	Phone Number:
/s/ Pasco Bakotich III	360-705-7231

Remove/Insert instructions for those who maintain a printed manual:

SECTION/DIVISION	REMOVE PAGES	INSERT PAGES
Title Page	Unnumbered	Unnumbered
Foreword	Unnumbered	iii – iv
PPM Comment Form	N/A	v – vi
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1 Right of Way Plans	1-1 – 1-22	1-1 – 1-24
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Appendix 2 P&E Word User's Guide	A2-1 – A2-2	A2-1 – A2-2
Appendix 5 Addendum Preparation	A5-1 – A5-4	A5-1 – A5-2

Revision marks

- A new date appears in the footer of each division/appendix page that has changes.
- Revision marks (underlines/sidebars) are used where new text has been added. They are a convenience to show designers what has changed.
- When a chapter is new or completely rewritten, no revision marks are applied.
- There are numerous punctuation changes throughout the manual that do not have sidebars or underlines.

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Washington State
Department of Transportation

Plans Preparation Manual

M 22-31.04

September 2012

Engineering and Regional Operations
Development Division, Design Office

Americans with Disabilities Act (ADA) Information

Materials can be provided in alternative formats by calling the ADA Compliance Manager at 360-705-7097. Persons who are deaf or hard of hearing may contact that number via the Washington Relay Service at 7-1-1.

Title VI Notice to Public

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Foreword

The *Plans Preparation Manual* is intended to provide instruction and guidance for preparing Right of Way Plans, Contract Plans, Special Provisions, and Estimate packages for a highway construction projects. It also provides direction and links to standards used in the preparation of these plans.

Updating this manual is an ongoing process, and revisions will be issued as required.

Questions, comments, improvements, and ideas are welcome. Please use the Comment Form on the following page to contact us.

/s/ Pasco Bakotich III

Pasco Bakotich III, P.E.
Director & State Design Engineer,
Development Division

Plans Preparation Manual Comment Form

We appreciate our users' suggestions for improving the *Plans Preparation Manual* (PPM). If you have comments or suggestions, please do one of the following:

1. Send an email with your comment(s), including the contact and manual information noted below, or
2. Fill out a copy of this form and attach a scanned copy to an email.

Please send your email to your designated ASDE or Area Design Liaison. Attach any other applicable information you feel will explain/clarify your comment(s).

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Phone Number	
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PPM Division or Appendix Number	
Section Number & Page Number	
Comment(s)/Suggestion(s):	

Contents

100.01 Introduction

Right of Way Plans are the official state documents used as the basis to acquire real estate and other property rights. All deeds or other instruments conveying land or interest in land to the state that are to be accepted at the Washington State Department of Transportation (WSDOT) Headquarters (HQ) must conform to the approved Right of Way Plan. The plans are referred to in legal instruments and are permanently filed for public record at the WSDOT Headquarters in Olympia.

It is the responsibility of the region to assemble data and prepare plans for the acquisition of rights of way (R/W), including easements, permits, and any substantiating documentation necessary for completion of the plans. Verification of ownership of existing R/W is also required.

To assemble the data, the region requests Assessor's maps, rolls, and last conveyances for use during early plan preparation. As soon as the parcels from which additional right of way will be acquired are identified, Title Reports with Assessor's land areas are requested for use in completing the Right of Way Plans.

Early plan preparation includes the following:

- The Region Real Estate Services Manager is consulted to determine the degree of property interests to be acquired, such as fee title, easements, and temporary construction easements.
- The Region Right of Way Manager is consulted to determine whether existing plans are adequate for revisions or a new Right of Way Plan should be prepared.
- The Region Utilities Engineer is consulted to determine the extent of utility interests to be addressed.

Complete Right of Way Plans consist of a Vicinity Map and Right of Way Plan sheets. Right of Way Plans are to be prepared in English units only.

100.02 Vicinity Map and Total Parcel Details

The Vicinity Map supplies general information depicting the project in relation to surrounding communities, public and private road networks, traffic movement patterns, and other local features. A total parcel detail and parcel number are included for any ownership too large to be shown on individual plan sheets (see Example 1-1).

A heavy line is used to indicate the new highway. Lighter lines in varying weights show interchanges, connecting road systems, bodies of water, and so on. Limited access, the existing right of way, and/or the proposed right of way are not shown. Detail and drafting requirements are set forth in Division 3.

100.03 Plan Sheets

(1) Alignment

The R/W centerline, from which the right of way is to be legally described, is shown as a continuous solid line for the full length of the project, with its alignment data shown. Additional noncontrolling centerlines are shown by a dashed line without alignment data.

It is preferable that the main line R/W centerline not have a letter designation (such as LR Line) unless there is more than one main line centerline. Therefore, the Highway Engineer's station will also not have a letter designation.

The new centerline stationing must have ties, by station and/or bearing equations, to existing centerline stationing at the beginning and/or end of the new plan.

It is recommended that all new plans should replace existing spiral curves on the R/W centerline with a simple circular curve in conformance with current design standards. When new R/W is to be purchased, the R/W alignment will conform to the new simple curve. If no R/W will be purchased, the existing R/W alignment will retain the original spiral curve. The new plan will reference the superseded spiral alignment (see Examples 1-9a and 1-9b). Prior to plan preparation, consultation with the HQ Right of Way Plans Section is advised.

(2) Control Features

Plan sheets must show government subdivision corners, platted subdivisions, donation land claims, national park/forest boundaries, and Indian reservations. Show stations where government subdivision lines intersect our highway centerline. Add a cross-reference note to the Monumentation Map or Record of Survey prepared for the project.

(3) Right of Way Details

(a) Right of way lines are continuous. These lines are shown crossing city streets, county roads, rivers, and railroads, and they must match adjoining projects. Where a first-time improvement is planned, the existing county road or city street rights of way are enclosed by a right of way line or turnback line and are identified for later conveyance to the appropriate agency.

Data must be supplied to describe the right of way for its entire length from a centerline or, if necessary, from a metes and bounds description. Any existing right of way line retained as an ultimate right of way line for the new project is tied to and described from the new centerline or by a metes and bounds description. Ties to a previous centerline are not acceptable (see Example 1-2). When the existing right of way line is to be retained as an ultimate right of way line and is offset from an existing spiral alignment, consideration should be given to buying, selling, or exchanging small pieces of land with the adjacent owner to eliminate this offset spiral right of way line.

Right of way widths and centerline stations are shown at the beginning and end of each sheet, except if in a taper, and at all points of change in width of the right of way. No point shall be double-described (that is, by a metes and bounds description and a station and offset) or by stations and offsets from two centerlines. All dimensions and areas must be shown on the final Right of Way Plan.

(b) A turnback line is shown as that line between right of way needed for highway purposes and right of way that will be relinquished to others (see Example 1-2). Areas for relinquishment are areas the state acquires for the improvement or construction of roads that will not remain a part of the highway system. The plan must show the areas being relinquished in sufficient detail and accuracy to allow a legal description to be written for the conveyance instrument (for example, stations and offsets or metes and bounds).

(c) An easement is a permanent or long-term right to enter upon the property of another for a defined purpose. Easements involve perpetual or temporary rights, which are noncancelable by the property owner during the term of the easement. For example, an easement is used when the state is to construct a facility that does not require ownership of fee title (such as slope or drainage), and the acquisition of an easement right will save the department substantial funds in acquisition costs.

The type of easement is defined on the Right of Way Plan (such as drainage easement, slope easement, or temporary construction easement) and is described by stations and offsets or by metes and bounds. Each type of easement and the area for each specific type is included in the ownership block under the Easement column opposite the appropriate parcel number (see Example 1-2).

Third-party easements, such as utility or ingress/egress easements, that cross a parcel for the benefit of others will be shown on the plan.

(d) A permit (referred to as a construction permit) is a temporary right to enter upon the property of another for a defined purpose. These rights are issued for a limited time period—usually expiring upon completion of construction. Permits do not encumber the owner's property, are nontransferable, and are cancelable by the grantor. Construction permits are not shown on the Right of Way Plans.

(e) An airspace corridor is a three-dimensional corridor of a specific width and length between two elevations. Airspace corridors are acquired in fee, and all rights of ownership apply to them. An airspace corridor is usually used where the highway is on a structure or in a tunnel. The property lying under or above the corridor may be used for other purposes as long as there is no detrimental effect on the highway facility. When the highway is on a structure, the only property acquired in fee would be the area needed to support the footings of the structure.

(f) Many Right of Way Plans contain an extreme amount of detail and will assign a point number to a specific location. A line table is used to identify the station, offset, and sometimes the elevation of each point. A separate table should be used for each feature such as R/W acquisition, easements, and air space corridors with a unique number assigned to each point.

Plans utilizing multiple tables should place all tables on a separate plan sheet. This will allow for future table revisions without interfering with plan sheet line

work. Each table should include a description of the specific feature and each feature should be shown in a separate table (see Examples 1-16a–1-16e).

(g) Surplus property is property that was acquired as operating right of way but is no longer needed as such. A plan revision mapping the surplus property area is necessary prior to disposal.

Property that was acquired for uses other than operating highway right of way and is no longer needed is also labeled as surplus property on the Right of Way Plan prior to disposal. Some examples of surplus property would be unneeded pit sites, quarry sites and maintenance sites.

Right of Way Plans cannot be revised to show surplus property until after a Surplus Property Review has been completed by both the region and Headquarters. If federal funds were used for the acquisition of right of way or construction of the facility, Federal Highway Administration (FHWA) approval is required before a plan revision can be approved. Disposal of uneconomic remainders does not need a plan revision.

(h) Property required for rest areas, historical markers, park & ride lots, truck weighing stations, wetlands mitigation areas, stormwater treatment areas, landscape areas, and aquifer protection areas (see the *Design Manual*) are shown on the applicable plan sheets. If these facilities are situated beyond the reasonable limits of the plan, the sites are shown on a Sundry Site Plan (see 100.05). Material and stockpile sites are not shown on Right of Way Plans unless they are adjacent to the right of way and are fully describable thereon. Otherwise, they are shown on the Right of Way Plan with a note cross-referencing the Sundry Site Plan where they are described.

(i) An Inventory Control Number (ICN) may be added to the plan to identify long-term leases or easements (typically 20 years or longer) and surplus property. Refer to the Surplus Property Review package to determine whether a plan revision is necessary. If an ICN will be added to the plan, the plan revision will normally identify the parcel or easement limits, the IC number, and the area—usually in square feet.

Most ICN plan revisions will be prepared in the region. However, there may be extenuating circumstances in which the revision will be prepared by the HQ Right of Way Plans Section. These will usually involve time-sensitive projects that the regions will not be able to complete in a timely manner due to ongoing projects. In those instances, the HQ Right of Way Plans Section will coordinate the plan revision with the region.

(4) Access Control

Hachures define control of access between a highway facility and all other property (see Example 1-3 and the *Design Manual*). On the title block of the plan sheet, the HQ Access and Hearing Section specifies the type of control: full, partial, or modified. If a transition is made from one type to another, the title block on the affected plan sheet includes both types and the plan sheet is labeled at the transition station. Specific considerations are:

- If the route has been designated for access control by the Secretary of Transportation, access control must conform to the *Design Manual* unless advance approval for a deviation is obtained from the Secretary.

- On federal-aid routes, changes in access features from those that have been approved by FHWA require concurrence from FHWA prior to WSDOT approval under Certification Acceptance procedures authorized by FHWA.
- Access hachures are not shown when crossing railroad operating property, grade intersections, crossroads, or interchanges (see Example 1-3).
- At separation structures where there is no access to the highway lanes, the hachures are continuous, and traffic movement is permitted over or under the structures by note (see 100.10).
- In areas of partial or modified access control, approaches are allowed, but the hachures are never omitted. Each approach is listed in the access approach schedule (see Example 1-6).
- Existing Limited Access Plans must be reviewed (deeds examined) for previously granted access approaches.
- The limits of access control are shown on all crossroads, frontage roads, and so on.

Nonhighway use of right of way (such as parking, storage, or buildings) requires an airspace agreement (see the *Right of Way Manual*). When requested by HQ Real Estate Services, the plan sheets will clearly delineate the limits and character of the multiple-use area.

On new plans, the access control hachures may, in limited instances, be moved to a precisely dimensioned invisible line, with the area labeled for the specific use and a turnback line and relinquishment notes provided if necessary.

On existing plans where access rights have been acquired, or on new plans where circumstances dictate retention of departmental control of the multiple-use area, the access hachures are carried on the right of way line and the other usage is shown by an access note.

Access notes concerning routine maintenance of utilities within the highway right of way are added to the plan following approval of the pertinent franchise or permit.

(5) Access Approach Schedule

The access approach schedule and the access control notes supply all the information necessary for the granting of private approaches.

The access approach schedule furnishes, in tabular form:

1. The name of the owner, utility, or agency.
2. The station or station limits left or right of centerline.
3. The type of approach.

Duplication of 1 above can be avoided by adding columns 2 and 3 to the ownership block, thereby showing all data pertinent to one ownership on one line (see Example 1-6).

An Access Approach Schedule will appear on both Right of Way Plans and Access Hearing Plans.

Approaches that are granted shall be shown in the access approach schedule only on the sheet on which the approach appears.

(6) Railroad Easement Details

A longitudinal easement is acquired from a railroad company when adjacent highway requirements overlap railroad property. The easement line is labeled and drawn the same weight as the right of way line. At beginning and end of the easement, show the highway station with equivalent railroad station. Offset distances to the easement line are taken perpendicular to each centerline. Under certain conditions, it may be necessary to describe the easement using railroad stationing by a metes and bounds description.

The crossing by a highway over, under, or at the grade of railroad property is by a crossing easement. The highway station with an equivalent railroad station is shown at each corner of the crossing easement and at the intersection of the railroad centerline and the R/W centerline. Access hachures are not to be carried across the railroad trackage, but are usually shown along the highway-railroad right of way or easement lines. The easement is labeled as a crossing easement. Separate areas for each type of easement are shown in the ownership block (see Example 1-2).

(7) Drawing Standards

Right of Way Plans are to be prepared with English units only on the CADD System in conformance with the adopted standards. Right of Way Plans are stored in permanent form on standard 22-inch x 34-inch Mylar® sheets. Consistent drafting procedures must be observed to attain maximum accuracy and clarity. Line weights and symbols are to conform to the standards shown in Division 3. Right of Way Plans are prepared using ground dimensions. The standard of measurement is the U.S. Survey Foot.

The right of way Vicinity Map and plan sheets should include the following information, as applicable:

- Plans are to be oriented with the Highway Engineers' stations, increasing from left to right on the main line and ramps. It is desirable for mileposts to run in the same direction as stationing. Beginning stations on ramps should start at 10+00. When existing surveys conflict with this procedure, the R/W line should be re-stationed as stated above if new plans are drawn.
- All centerlines that are used to describe right of way should have bearings and be labeled. Note: Do not use station or bearing equations within a new Right of Way Plan. However, station or bearing equations can be used at the beginning and/or end of a new Right of Way Plan.
- Mileposts at the beginning and end of the plan. The total length of the plan is shown only on the first sheet of the Vicinity Map.
- Centerline stationing and destination arrow at beginning and end of each sheet. The destination arrow shall refer to the nearest town, city, highway junction, or other major feature.
- On plan sheets use 5-Station numbers, such as 10+00 and 15+00. On the Vicinity Map, use 10-Station numbers, such as 10+00 and 20+00. Place the numbers parallel to and above the centerline.
- Beginning and end of plan cross-referenced to current contiguous plans.
- On each plan sheet, a note stating the sheet number, name, and approval date of the plan being superseded by the new plan (see Example 1-2).

- Names of all interchanges, highways, city streets, county roads, railroads, and bodies of water.
- Highway structures shown in their correct location, drawn to scale, and identified as overcrossing or undercrossing in relation to the main line traffic movement.
- Traffic movement pattern indicated by arrows on centerline, with the appropriate numeral added for multiple lanes.
- Townships, Ranges, government subdivisions, and platted subdivisions right-reading with map and a north arrow for orientation purposes.
- Section and quarter-section numbers right-reading with north.
- Corporate limit and county boundaries. The name of the city should be placed on the city side of the corporate limit line (see Example 1-1).
- Parcel identification numbers and total ownership boundaries (see 100.04). In the ownership block, show the name of the vested owner and the name of any contract purchaser in parentheses behind the vested owner.
- Major utility transmission right of way and tower numbers. Other utilities should not be shown unless replacement right of way is being purchased.
- Turnback lines labeled and areas identified for conveyance (relinquishment, certification, or transfer) to the appropriate agencies.
- Stormwater Treatment Areas, Wetlands Mitigation Sites, and other mitigation facilities are not part of the operating right of way and are considered nonhighway use areas. The boundaries of Stormwater Treatment Areas are shown with a solid line.
- Scale: Vicinity Map, 1 inch to 500 feet; Plan Sheets, 1 inch to 50 feet, unless special approval for a deviation is obtained from the HQ Right of Way Plans Section Manager.
- All public land identified by the agency name (for example, Snoqualmie National Forest) and a parcel number—except that WSDOT land is identified as WSDOT only.
- Grade intersection stations for all county roads. City street intersections are not labeled.
- Basis of Bearings should be included on all new Right of Way Plans. Information included in the Basis of Bearings description shall include the monuments defining each end of the bearing line and/or the specific line (for example, the north line of the northwest quarter of Section 1). The coordinate value of each end of the line may also be provided but must include the reference system. The monuments used to control the Basis of Bearings line shall be shown on the plan, either on the specific plan sheet or the Vicinity Map.
- A cross-reference note to the corresponding Monumentation Map or Record of Survey is included on all new Right of Way Plans.
- On complex Right of Way Plans, a sheet layout diagram should be shown on the Vicinity Map (see Example 1-1).
- The Limit of Plan identifies the termination of a noncontrolling alignment. It may not be the actual end of the alignment, but rather the end of the portion shown on the subject plan sheet (see Examples 1-1 and 1-14).

It is not necessary for the project limits of a new Right of Way Plan to match the project limits of the corresponding PS&E plan. A new Right of Way Plan should be extended whenever possible so that an entire Right of Way Plan sheet can be

superseded. Do not leave short segments of an existing Right of Way Plan while superseding the remainder. It is advisable to contact the HQ Right of Way Plans Section prior to developing a new plan to determine the final extent of the new Right of Way Plan.

Notes, dimensions, subdivision information, and similar data are added after the right of way limits for each sheet are established, to avoid relocation of this data at later stages of plan development. Drawings are not to be extended beyond the border of the sheet.

Existing monuments that are used to tie the R/W centerline shall be identified on the Monumentation Map.

It is recommended that the R/W line not be coincident to a private property line. If the R/W Line or easement line does follow a private property line, it should be stationed to the nearest foot plus or minus (see Example 1-3).

Topographic information should be kept to a minimum, but should be sufficiently complete to indicate the effects of the proposed right of way on new parcels. No symbols for vegetation are used except for the outline of orchards or similar features directly related to the production of income from a particular property. All improvements, including wells, septic tanks, and drain fields on new parcels 100 feet or less from the proposed right of way line, are labeled and dimensioned to the nearest foot from R/W centerline. Distances to buildings should be dimensioned to the nearest part of the building (normally the roof overhang). Distances shall be placed outside the R/W; distances to fences, sidewalks, and so on are not shown.

Location information for aquatic features such as rivers or river banks, lakes, and other water boundaries should be shown to the nearest foot only.

An interchange is identified by name.

There shall be no overlap of right of way between plan sheets or adjoining plans.

(8) Transmittal Requirements

After the plans have been reviewed by the Region Right of Way Plans Office, the following are to be included in the transmittal of proposed Right of Way Plans to the HQ Right of Way Plans Section:

(a) A letter listing all items transmitted, including the Plans, Specifications, and Estimates (PS&E) title.

(b) Current work order information.

(c) A numbered Title Report for each parcel.

(d) Copies of calculations completed to determine the right of way centerline, parcel limits, parcel areas, and any other pertinent data.

(e) One copy of each subdivision plat referred to in Title Reports.

(f) One copy of each plan sheet (adjoining or underlying plans) requiring revision or superseding as a result of the new plan. Proposed revisions are to be shown in color and submitted in accordance with 100.09 (see Example 1-8).

(g) If the project is designated for limited access control, the region shall make certain that the entire hearing procedure was carried to completion (see the *Design Manual*) and shall include correlative material in the transmittal.

(h) If a plan shows railroad facilities, federal lands, rest areas, park & ride lots, or sundry sites, acknowledgment of compliance with the following requirements is to be furnished:

1. Applicable portions of the *Utilities Manual.*
2. Sundry Site Plan.
3. Rest areas: A copy of the approval by the HQ Hydraulics Section (see the *Design Manual*).
4. *Highways Over National Forest Lands,* Memorandum of Understanding, M 22-50: www.wsdot.wa.gov/publications/manuals/m22-50.htm

(9) Headquarters Processing

The HQ Right of Way Plans Section will make a final review of the plan, coordinate the review with other offices as required, and send back to the region a Mylar® original of each sheet. A print showing substantial changes that were made will also be sent. After review of the changes by Headquarters, and with region concurrence, the responsible Professional Engineer will stamp and sign each sheet. The region has the option to have a Professional Land Surveyor also stamp and sign them. The stamp will be placed above the title block. The originals will then be transmitted to the HQ Right of Way Plans Section where they will be approved and adopted for the applicable phase authority (see the *Design Manual*).

Following approval, the plan(s) will be scanned into the Oracle system for access by the regions, HQ Real Estate Services, and other plan users.

For revisions to original plans, see 100.11.

(10) Superseded Plans

When all or a portion of an existing Right of Way Plan is superseded by a new plan, the superseded plan must be revised to identify the portion of the plan that has been superseded. It is the region's responsibility to submit a plan revision identifying the superseded plan or portion thereof. A superseding plan revision may be submitted at the same time as the new plan. However, the superseded plan revision will not be processed and approved until the superseding plan is approved.

100.04 Right of Way Acquisition Details

Whenever possible, the total boundary of each parcel affected by the highway improvements is included on the plan sheets. Parcels that cannot be shown entirely on the plan sheet are included on the Vicinity Map. The total parcel detail must be clearly shown in relation to the highway facility. Sufficient data must be supplied to ensure each area of take required for the project can be legally described.

The Project Development Office, working with Real Estate Services, can obtain total area for parcels shown on the Right of Way Plan from the County Assessor's Office. The title companies are also requested to include areas from Assessor's records in the Title Reports, and these areas are entered in the "Total Area" boxes on the Right of Way Plans.

A greater degree of precision is required to plot the boundaries of parcels where land values are high (such as urban areas and development tracts). Where land values are high and/or ownerships consist of lots, blocks, or small tracts, the areas are shown to the nearest square foot. Larger areas are generally defined by a Public Lands Survey

and may be specified in acres. Right of way takes are calculated to the nearest square foot or hundredth of an acre, except in the case of federal or Indian lands. These lands are calculated to the nearest thousandth of an acre, which is a federal requirement. Copies of computer sheets of calculations initiated by the region are sent, with the plans, to the HQ Right of Way Plans Section to expedite the review process.

(1) Final Documentation

The following ownership information is submitted by the region to the HQ Right of Way Plans Section in Olympia.

(a) A Title Report is required for each parcel from which WSDOT is acquiring property, easements, and/or access rights. These reports are examined for easements or permits granted to owners of property that does not abut the highway but is affected by the new highway facility.

(b) Property parcel identification numbers are assigned consecutively for every ownership involved from the beginning to the end of the project. Each number consists of six digits, of which the first shall be the region prefix:

1-00000 = Northwest Region	4-00000 = Southwest Region
2-00000 = North Central Region	5-00000 = South Central Region
3-00000 = Olympic Region	6-00000 = Eastern Region

The region assigns the parcel number for use within its jurisdiction and it is used on all Right of Way Plans, preliminary commitments, deeds, easements, or other substantiating data.

The assigned number will identify the property for all future departmental use; however, a division of or additional acquisition from an existing parcel must be assigned a new six-digit parcel number. Letter suffixes to an existing number are prohibited.

When new acquisitions occur on a plan that has had a previous acquisition, the existing parcel number is arrowed into the previous acquisition. The new parcel number is placed within the new parcel. The ownership block will retain the previous parcel number information, including the areas. If a parcel is acquired in total, followed by a subsequent plan revision or a new plan, the existing parcel number is lined out and a new WSDOT cartouche is placed within the parcel (see Exhibit 1-13).

The number is used as shown in Example 1-2.

(c) The areas of total ownership, right of way required for highway use; property remaining right and left of the right of way centerline; easements; and permits are shown in a tabular listing on each plan sheet. In most cases, the total area is obtained from the County Assessor's Office.

When an individual ownership extends to more than one plan sheet, area tabulations will be placed on the first plan sheet that shows that parcel.

100.05 Sundry Site Plans

The original intent of the Sundry Site Plan was to provide a source of material for highway construction projects. Today, most projects use contractor-furnished sites, so pit sites are no longer shown on Sundry Site Plans. Current use includes functions such as ferry terminals, wetlands mitigation sites, park & ride lots, and stormwater retention or other reclamation sites.

A Sundry Site Plan is used to map property that cannot be shown on a Right of Way Plan. Sundry Site Plans are to be prepared in English units only. Preferably, sites used by WSDOT are acquired in fee. Some sites may be acquired with an easement or lease.

Pit sites (PS), quarry sites (QS), stockpile sites (SP), and waste sites (WS) are identified by a system that uses two letters, followed by the county letter designation (shown on the following list) and the site number. For example, quarry site number 25 in Thurston County is shown as QS-J-25. Sites such as ferry terminals, wetlands mitigation areas, park & ride lots, and so on, are identified by name rather than a letter designation and site number; for example, Edmonds Ferry Terminal, Snoqualmie Wetlands Mitigation Area, and Marvin Road Park & Ride Lot.

The following list shows the county letter designations:

County	Letter	County	Letter	County	Letter
Adams	AD	Grays Harbor	H	Pierce	B
Asotin	AN	Island	IS	San Juan	SJ
Benton	R	Jefferson	Y	Skagit	M
Chelan	K	King	A	Skamania	SA
Clallam	Q	Kitsap	I	Snohomish	D
Clark	G	Kittitas	S	Spokane	C
Columbia	CO	Klickitat	Z	Stevens	W
Cowlitz	N	Lewis	L	Thurston	J
Douglas	DO	Lincoln	T	Wahkiakum	WA
Ferry	FY	Mason	X	Walla Walla	O
Franklin	FN	Okanogan	U	Whatcom	F
Garfield	GA	Pacific	V	Whitman	P
Grant	GT	Pend Oreille	PO	Yakima	E

(1) Site Selection

Site selection should be based at least in part on the following:

(a) Site investigation by the Region Materials Engineer and the Region Landscape Architect.

(b) Permanency.

(c) Size and space (sufficient to accommodate all current and/or future operations).

(d) Cost.

(e) Aesthetic values.

(f) Single ownership, if possible.

(g) Unimproved low-valued land. Purchase of improved or valuable land should be avoided unless acquisition of the site is cost-effective (the savings in haul compensate for the cost of the site).

(h) Consideration of all other available sources, including private, commercial, and other WSDOT sites.

(i) Presence of wetlands, aquifers, farmlands, flood plains, historical or archaeological sites, or other environmentally sensitive lands.

(2) Plan Submittal

Before beginning work on a Sundry Site Plan the region RW Plans Office should meet with Region Real Estate Services and the project office to determine the anticipated use of the site and whether it will be a total or partial acquisition. This information can be used to determine the elements to be located within the site and whether a Record of Survey will be required. Specific information to be included and submitted with a Sundry Site Plan is as follows:

(a) Site number or name.

(b) Title Reports and parcel identification numbers.

(c) Area calculations:

- Total
- Take
- Remainder

(d) If a survey was completed for this site, provide a cross-reference note to the Record of Survey.

(e) Except for Sundry Site Plans referenced to a Record of Survey, described by aliquot parts, or defined by platted lot and block, all alignments and parcels shown on the plan will be tied to a minimum of two General Land Office corners or State Plane Coordinate control points.

(f) Access information if site does not abut public road system

(g) Location of buildings and other structures, fences, wells, septic systems, and any other features necessary for appraisal purposes.

(h) All easements shown on parcels acquired for the purpose of structure construction.

(i) Scale drawing with dimensions of sundry site on a 22-inch x 34-inch reproducible sheet (see Examples 1-10, 1-11, and 1-12).

(j) Vicinity Map.

(3) Sundry Site Plans That Reference a Record of Survey

Many Sundry Site Plans now include setting property corners of the acquisition area. However, the final acquisition often differs from the original plan once negotiations are complete. In order to avoid resetting property corners, the following procedure has been established.

(a) The Sundry Site Plan is prepared and approved based on the anticipated needs of the project.

(b) Once negotiations are complete and the property has been acquired, the property corners are set.

(c) The Record of Survey is filed and an Auditor's File Number (AFN) is assigned to the survey.

(d) The Sundry Site Plan is then revised, adding the Record of Survey AFN to the plan.

(4) Processing

The Sundry Site Plan is submitted to the HQ Right of Way Plans Section.

The HQ Right of Way Plans Section will perform a final review of the plan, coordinate the review with other offices as required, and send the region a Mylar® original. A print showing substantial changes made will also be sent. The responsible Project Engineer will sign the Mylar®. The original will then be transmitted to the HQ Right of Way Plans Section, where it will be approved and adopted for the applicable phase authority (see the *Design Manual*). Following approval of the plan, the original Mylar® will be filed with the HQ Right of Way Plans Section. Scanned images of the plan will be placed in the Oracle system for access by the region, HQ Real Estate Services, and other plan users.

For revisions to original plans, see 100.11.

100.06 Parcel Acquisition Plans

A Parcel Acquisition Plan (PAP) is the official state document used as the basis for advanced acquisition of real estate and other property rights. It is not used to acquire property rights without prior approval of the Headquarters Real Estate Services Office and the Headquarters R/W Plans Manager. A PAP generally includes a single parcel, although multiple parcels can be shown if appropriate. It is preferred that a PAP be used to acquire a total parcel from a willing seller. However, because they are considered an official plan, partial acquisitions can be made from these plans, except for acquisition of access rights.

A PAP is almost always used to acquire property before the completion of the Right of Way Plan. Therefore, it is not included in the limited access hearing process. For this reason, a PAP is not used to acquire access control rights. In addition, project design is usually not complete. The region may acquire more real estate than needed or not acquire enough. In the first instance, the project engineer has certified that right of way was acquired out of project necessity, when in fact it may not have been. In the second instance the department must return to the property owner for additional acquisition.

A PAP is prepared to the same standards as a Right of Way Plan. The plan is certified by a professional engineer and is approved and adopted by the state R/W Plans

Manager. If the highway centerline has not been established, and station/offsets cannot be used to prepare a legal description, then enough data must be shown to prepare a metes and bounds description. The description must be tied to an established boundary corner so that the property can be independently defined and located.

The use of a PAP puts the region at risk. For this reason, use of a PAP should only be undertaken after careful consideration of all factors. The Real Estate Services and Right of Way Plans offices must be consulted before preparing a PAP.

A PAP must be superseded by the final Right of Way Plan.

See Example 1-15.

100.07 Exhibit Maps

An Exhibit Map is an unofficial plan used for advanced acquisition of property. It is only used for total acquisition from willing sellers. An Exhibit Map is not to be used for a partial acquisition. These maps should be considered exhibits to assist the property owner during the negotiation and acquisition process. The plan must identify the property so that the existing legal description can be used. No new legal description will be prepared from an Exhibit Map.

Although EEDS drafting standards should be used to prepare an Exhibit Map, minor variations may be allowed. Consultation with the HQ Right of Way Plans Section is advised. An Exhibit Map may or may not show a proposed right of way, but in no instance should limited access hachures be shown.

Use of an Exhibit Map puts the region at risk. Recommendations found in Section 100.06, Parcel Acquisition Plans, are also appropriate for Exhibit Maps.

Exhibit Maps are not certified or adopted. Therefore, they are not superseded by the final Right of Way Plan.

See Example 1-7.

100.08 Access Report Plan

The Access Report Plan (see Example 1-4) shows the effects of the proposed highway on the street and road system by delineating the points of public access (see the *Design Manual*). The following items are the minimum details to be shown on the plan:

- Highway facilities with standard access control delineated.
- Public road network.
- Proposed frontage roads and county road or city street connections (individual private approaches need not be included, but the report should describe general provisions for access to private properties).
- Location and identity of subdivisions.
- Corporate limits and boundaries.
- Rivers, streams, and major landmarks.
- Pedestrian and bicycle trails or paths.
- Beginning and end of plan.
- Legend and scale bar.
- Publicly owned utilities.

- Title block.
- Areas for relinquishment to county, city, or transfer to others, with Turnback Lines indicated, and Surplus R/W labeled as such.
- Structures, labeled as overcrossings or undercrossings.
- Local names for interchanges shown on plan.
- Points of public access.
- Appropriate traffic movement notes on plan sheets.
- Plan length on first page of Vicinity Map shown as: Total Length of Plan = __ Miles.
- Directional arrows on all roadways and ramps.
- Number of lanes indicated on all roadways.

Matching of stationing and all details, especially on all plan sheets, will be carefully checked to ensure the relationship to adjacent plans.

To prevent confusion concerning the degree of access control intended for each area of a plan, the station where transition is made from one type of control to another is clearly labeled. This applies to any such transition upon the highway proper or where such highway connects or intersects with another limited access facility, be it a state, county, or city roadway. This does not apply at intersections where the transition occurs between access-controlled facilities and facilities with no access control. Modified access control adjacent to interchanges or intersections must be identified on the plan.

The title block on the plan sheet shall designate full, partial, or modified access control. Whenever a transition occurs on a sheet, the title block shall indicate all degrees of access appearing on the sheet.

100.09 Access Hearing Plan

The region prepares an Access Hearing Plan (see Example 1-5) to be used as an exhibit at the public hearing and forwards it to the HQ Right of Way Plans Section for review. The Access Hearing Plan shall contain the following data in addition to that required for the Access Report Plan:

- Topographical features such as buildings, fences, and private driveways.
- Ownerships, including parcel numbers, names, and areas (for details on assignment of property parcel identification numbers, see 100.04(1)(b)). Areas shown on the hearing plan shall include the total area, acquisition area, and remainder.
- Access Approach Schedule showing all private approaches within the limits of access control.
- Access control notes in conformance with 100.12; right of way dimensions need to be shown.

100.10 Special Right of Way Plans

Special maps and plans required for negotiation with various agencies and organizations are usually prepared by the HQ Right of Way Plans Section. When such plans are the responsibility of the region, they are transmitted to the HQ Right of Way Plans Section with the Right of Way Plans.

(1) Court Exhibit Maps

Condemnations or taking of rights by judicial action may be accomplished through both state and federal courts. The mapping preparation varies depending upon which court is involved.

(a) **State Court**

The actual taking instrument is generally the pertinent portion of the Right of Way Plan. For court exhibits, aerial photography supplemented to depict property lines or other data is preferable. Experience has shown that juries more readily relate to this type of exhibit. If photography is not available or if specific site conditions are such that this cannot be accomplished, a special court exhibit should be prepared.

If required, the special court exhibit map is to be prepared from information shown on the Right of Way Plan. This information may be supplemented by information from the right of way agent's condemnation report, the Title Report, county records, legal descriptions, and/or information obtained from personal examination of the property.

Where supplemental information indicates a difference in dimensions or area from that indicated on the Right of Way Plan, a Right of Way Plan revision should be prepared concurrent with the court exhibit map. This material will be sent to HQ Real Estate Services, where it will be prepared as part of the exhibit and presented to the Attorney General's Office.

The court exhibit map is to be prepared under the supervision of the engineer who will present the map in court.

The map should include the following:

- Ties from proposed R/W centerline to existing corners.
- All buildings and improvements.
- Accurate position of buildings and improvements that lie 100 feet or less from the proposed right of way.
- Distance from improvements to proposed R/W centerline.
- Location of pipelines and other construction, as requested.
- Five-foot contours, drawn in brown pencil.
- Bearing on ownership lines where distances are shown.
- Types and points of access for limited access highways.

If possible, show the entire area to be acquired from a single ownership on a single sheet. Only the portions of an ownership covered by the Title Reports need be shown if those areas alone will be affected by condemnation and severance for right of way. Include the limits of other adjoining parcels of the same ownership if their value may also be affected. More than one parcel involving one or more ownerships may be shown if there is no break in continuity between them and if the scale will be large enough to clearly show the features of each. Do not show fencing that is to be removed or is proposed, and do not color the map.

A Vicinity Map is required, preferably on the exhibit map sheet, showing the entire contiguous ownership of the land being condemned and pertinent topographic features.

Submit the tracing to HQ Real Estate Services with a print on which the total ownership is outlined in red, with a letter giving acreage computation for the total ownership, right of way area, and severed portions. HQ Real Estate Services will assemble all the necessary information and present the package to the Attorney General's Office.

(b) **Federal Court**

Maps prepared for the taking instrument must be consistent with federal regulations at the time of taking. A section of the Right of Way Plan must include metes and bounds description data, and a supplemental photo exhibit map is desirable. The specific details shall be coordinated through HQ Real Estate Services at the time of preparation.

(2) Right of Way Over Lands Controlled by the Bureau of Indian Affairs

For right of way over lands controlled by the Bureau of Indian Affairs (BIA), the region prepares the appropriate Right of Way Plans. The Engineer's Affidavit is signed by the Professional Engineer who signed the Right of Way Plan. The Engineer's Affidavit and Certification are signed by the Project Development Engineer or equivalent. Reproducibles and prints, as required, are sent by the Region Right of Way Plans Office to the Region Real Estate Services Office for further action, in accordance with the prescribed policies of WSDOT and the BIA. A copy of the Engineer's Affidavit and the Certification are sent, with the acquisition file, to HQ Real Estate Services.

(3) National Forest Land

Right of Way Plans for proposed highways over national forest land and requirements for mapping of forest lands are contained in the Memorandum of Understanding, "Highways Over National Forest Lands," and amendments thereto.

(4) Washington State Ferries Facility Site Maps

Sundry Site Plans or other plans involving property for the Washington State Ferries are prepared by the HQ Right of Way Plans Section.

(5) Hardship Acquisition Maps

Region requests for hardship case consideration are submitted to the HQ Right of Way Plans Section, accompanied by one set of half-size reproducibles consisting of the following:

- Before Right of Way Plans are approved, a Vicinity Map and preliminary plans showing hardship parcels to be acquired (ownership and area of take indicated). If preliminary plans are not available, the exhibit map may be substituted. Refer to Section 100.07 for additional information (see Example 1-7).
- After Right of Way Plans have been approved, a Vicinity Map and Right of Way Plan showing hardship parcels to be acquired (ownership and area of take indicated).

For partial take parcels, metes and bounds descriptions of the partial takes or dimensions of take and remainder must be included in the plans.

100.11 Revisions to Approved Right of Way Plans

The Region Right of Way Plans Office submits a proposed revision (additions in red and deletions in green) on prints of the latest approved plan (see Example 1-8). Prints showing the proposed revision must not be modified except as noted. Revisions to an approved Right of Way Plan are placed on the original tracings by the HQ Right of Way Plans Section (see Example 1-2).

When revising plans developed originally with the CADD System, the revision process is the same as described above and the transmittal requirements are identical to those noted below.

Plan revisions may be submitted by mail or e-mail. E-mail submittals must include all documentation that would normally accompany a mailed revision, including the transmittal letter. It is especially important that e-mail submittals be legible. Plan sheets submitted by e-mail should be CAD drafted rather than handwritten. Handwritten plan revisions submitted by e-mail will be returned to the region if they are not legible.

For projects that include a large number of new parcels, Title Reports may be downloaded to an ftp site or other electronic media. Instructions for retrieval of these documents must be forwarded to the HQ Right of Way Plans Section.

Plan submittals should be to scale to assist in drafting the revision onto the original sheet. If plan revisions are done in CAD, the CAD file should be forwarded to the HQ Right of Way Plans Section.

When revising plans that have both English units and metric units, the proposed revisions from the region shall show only English units.

Extensive changes to the existing Right of Way Plan may require submittal of a new plan in lieu of a revision.

New Right of Way Plans should be developed when the existing plans are obsolete, inaccurate, or difficult to read.

New Right of Way Plans should be considered when any of the following conditions exists:

- The scale of the existing plan is smaller than 1"=100'.
- The existing plan shows unreliable data (for example, assumed bearings, distances, or other important information).
- The proposed revision would require major changes to the current plan (for example, new alignment, the addition of many new parcels, or the addition of access control).
- The current plan shows “Right of Way as acquired, alignment as constructed” in the revision block.
- The existing plan was originally a county or city plan.
- Stations do not increase from left to right.
- The plan is on an old datum (for example, 1929).

When revising “Split Plans” (separate Right of Way and Limited Access Plans), the region must submit appropriate colored revisions for **both** plans.

Total parcel details were not shown on many of the older Right of Way Plans. When an existing Right of Way Plan is being revised to show new parcels, include a total parcel detail. Total parcel details are very important when condemnation of the parcel is a probability. A total parcel detail is not necessary if the total parcel is especially large, such as a national forest.

Whenever a parcel has been dealt with and the transaction has been finalized, and additional right of way and/or other property rights are required, a new parcel number is assigned to the parcel involved. The old number is shown inside the area of original take. Property dots are adjusted to show the current boundary, and new areas are shown in the ownership block.

An approved Right of Way Limited Access Plan cannot be revised until completion of the appeal period following mailing of the Findings and Order. All revisions that the region develops during this time shall be held and submitted as a single package after the appeal period.

For plans that include a Wetlands Mitigation Site, the Army Corps of Engineers note, with the permit number, should be included in the plan revision.

(1) Transmittal Requirements

The following shall be submitted as part of the revision transmittal:

(a) Completed Schedule of Right of Way Plan Revisions (transmittal letter). All revisions require a justification for the revision. It is very important to explain why the revision is needed. The purpose of the plan revision should be explained in detail on the transmittal letter. Reiterating what is shown on the redlined plans is not a sufficient explanation. The PS&E title should be included.

(b) Marked prints with engineering and right of way information that includes areas revised if right of way negotiations are not complete. The actual area of the original take and the area for supplemental acquisition, based on ownership at the time of the second acquisition, are included if negotiations are complete. Redlines will include parcel numbers, names, areas, and remainders.

(c) Title Reports for all new parcels. Supplemental Title Reports are acceptable if the original transaction has been recently completed. A new parcel number will be needed for these parcels.

(d) Copies of calculations completed to determine new parcel limits, parcel areas, and other pertinent calculations.

(e) Subdivision plats and/or other pertinent data.

(f) Coincident with (a) above, when original right of way negotiations are incomplete or a revision affects condemnation proceedings, the Region Real Estate Services Manager is advised to take appropriate action pending final revision approval.

(g) E-mail submittals are acceptable provided a transmittal letter is included and all plan sheets are legible.

(2) Headquarters Processing

The HQ Right of Way Plans Section will conduct a final review of the plan revisions and coordinate the review with other offices and the FHWA, as required.

Subsequent to review, the original plans are revised and the HQ Right of Way Plans Section Manager approves the revisions.

Following approval, the plan(s) will be scanned into the Oracle system for access by the regions, HQ Real Estate Services, and other plan users.

100.12 Access Control Notes

(1) Instructions

Standard access control notes cover all necessary descriptions to be shown in the plans for the granting of approaches. An access approach note plus necessary supplementary notes will be used to identify all like approaches listed.

The access approach schedule on the Right of Way Plan shall list the specific details for each approach. Under the Station on Roadway column, enter the exact station or the stations between whose limits the approach will be granted, the side of centerline (right, left, or both), and any supplementary information required. Under the Type column, indicate the letter and/or applicable supplementary note numbers.

The supplementary notes are used in conjunction with the access approach notes to which they apply. Each supplementary note shall always be listed by the number assigned to it. In this manner, an access approach note letter with a supplementary note number will always indicate the same type of approach throughout all Right of Way Plans.

Type A through Type F approaches are defined in WAC 468-58-080, are shown in the *Design Manual*, and are listed in the Access Approach Notes section below.

Supplemental Note No. 8, Railway Access, will be used to prohibit traffic movement between the railway right of way and the traveled highway lanes.

Supplemental Note No. 21, Utility Within Right of Way Maintained From Outside Right of Way, refers to a utility within the right of way by franchise or permit where all access is to be from the adjacent streets, roads, or property. The supplementary note number only will be listed under the Type column of the access approach schedule.

If it is necessary to add a special stipulation to an approach note, an asterisk may be indicated after the letter and/or number in the Type column of the access approach schedule. The special stipulation indicated by the asterisk shall be explained under the Access Notes column in the same manner as a footnote.

(2) Access Approach Notes

(a) **Type A Approach Note**

Type A approach is an off and on approach in a legal manner, not to exceed 30 feet in width, for the sole purpose of serving a single-family residence. It may be reserved by an abutting owner for specified use at a point satisfactory to the state at or between designated highway stations.

(This note may be supplemented by a note stating the number of users and/or special use.)

(b) **Type B Approach Note**

Type B approach is an off and on approach in a legal manner, not to exceed 50 feet in width, for use necessary to the normal operation of a farm, but not for retail marketing. It may be reserved by an abutting owner for specified use at a point satisfactory to the state at or between designated highway stations.

(This note may be supplemented by a note stating the number of users.)

(c) **Type C Approach Note**

Type C approach is an off and on approach in a legal manner, for special purpose and width to be agreed upon. It may be specified at a point satisfactory to the state at or between designated highway stations.

(Always supplement by notes stating number of users, special use, and width.)

(d) **Type D Approach Note**

Type D approach is an off and on approach in a legal manner not to exceed 50 feet in width for use necessary to the normal operation of a commercial establishment. It may be specified at a point satisfactory to the state at or between designated highway stations.

(e) **Type E Approach Note**

Type E approach is a separated off and on approach in a legal manner, with each opening not exceeding 30 feet in width, for use necessary to the normal operation of a commercial establishment. It may be specified at a point satisfactory to the state at or between designated highway stations.

(This note is no longer used but is still shown on some existing deeds.)

(f) **Type F Approach Note**

Type F approach is an off and on approach in a legal manner, not to exceed 30 feet in width, for the sole purpose of serving a wireless communication site. It may be specified at a point satisfactory to the state at or between designated highway stations.

(3) Supplementary Notes

(a) **Offset Access Note – No. 1**

This approach is to be used to travel on right of way and enter property as specified.

(In the access approach schedule, list the station of approach on roadway and the station where property is to be entered; for example, 146+00 Rt. to leave R/W 148+50 Rt.)

(b) **Joint Usage Note – No. 2**

This approach is to be used to serve more than one owner and/or utility, for only those ownerships listed on the access approach schedule.

(Use this note for each approach serving more than one owner and/or utility.)

(c) **Modified Access Control Note – No. 3**

No longer used.

(d) **Special Farm Equipment Note – No. 4**

This approach may be increased in width, not to exceed 80 feet, for use by special farm equipment. During the crossing of the highway with farm equipment requiring an approach exceeding 50 feet in width, traffic on the highway shall be protected by flaggers provided by the owner at the owner's expense.

(e) **Utilities Note – No. 5**

This approach is to be used for the operation, maintenance, and repair of the utility specified. The approach shall not exceed 50 feet in width.

(In the access approach schedule, state the station limits on the roadway, the type of utility and, if required, the gating restriction.)

(f) **Grain Hauling Note – No. 6**

This approach is for limited use in hauling grain during the harvest season. The approach shall not exceed 50 feet in width.

(In the access approach schedule, state the station limits on the roadway and, if required, the gating restriction.)

(g) **Tree Farm Note – No. 7**

This approach is to be used for the operation of a tree farm or tree farms, including the removal of raw forest products therefrom, but may not be used for retail marketing. The approach shall not exceed 50 feet in width.

(h) **Railway Access Note – No. 8**

No access is permitted between the railway right of way and the traveled highway lanes.

(In the access approach schedule, state the station on the roadway and name of railway.)

(i) **Gate Restriction Note – No. 9**

This approach shall be gated and locked when not in use.

(j) **Restricted Clearance Note – No. 10**

Only as restricted clearance permits.

(k) **Pedestrian and Bicycle Trails Note – No. 11**

Pedestrian and bicycle traffic will be permitted use of the trail designated on the _____(Rt. or Lt.) between Sta. _____ and Sta. _____.

Access to the trail will be permitted only at:

Sta. _____ (Rt. or Lt.)

Sta. _____ (Rt. or Lt.)

(This note may be supplemented by a note stipulating any restrictions or special privilege of direct access to the trail. The note should appear on each plan sheet on which the trail is shown. Station limits of the trail should not extend beyond the individual sheet limits. Access breaks for the trail are noted only on the specific sheet where the break occurs.)

(l) **Trail Access Note – No. 12**

Abutting property owners may be afforded the privilege of direct access to the trail under permits issued by WSDOT.

(m) **Utility Within Right of Way Maintained From Outside Right of Way Note – No. 21**

The privilege of access to areas within the right of way is permitted from outside the right of way to the user designated, solely for use authorized by and subject to the conditions of the franchise, permit, or agreement specified. No access will be allowed to the traveled highway lanes or ramps.

(In the access approach schedule, state the name of utility, the type of utility, the station of entry, and the franchise or permit number.)

(n) **Dominant/Servient Access Note – No. 22**

This approach use is for the benefitted parcel per the easement of record. This use is only allowed as long as the easement remains in effect. This approach is to be used to serve both the dominant and servient estate.

(o) **Noise Wall Access Note – No. 23**

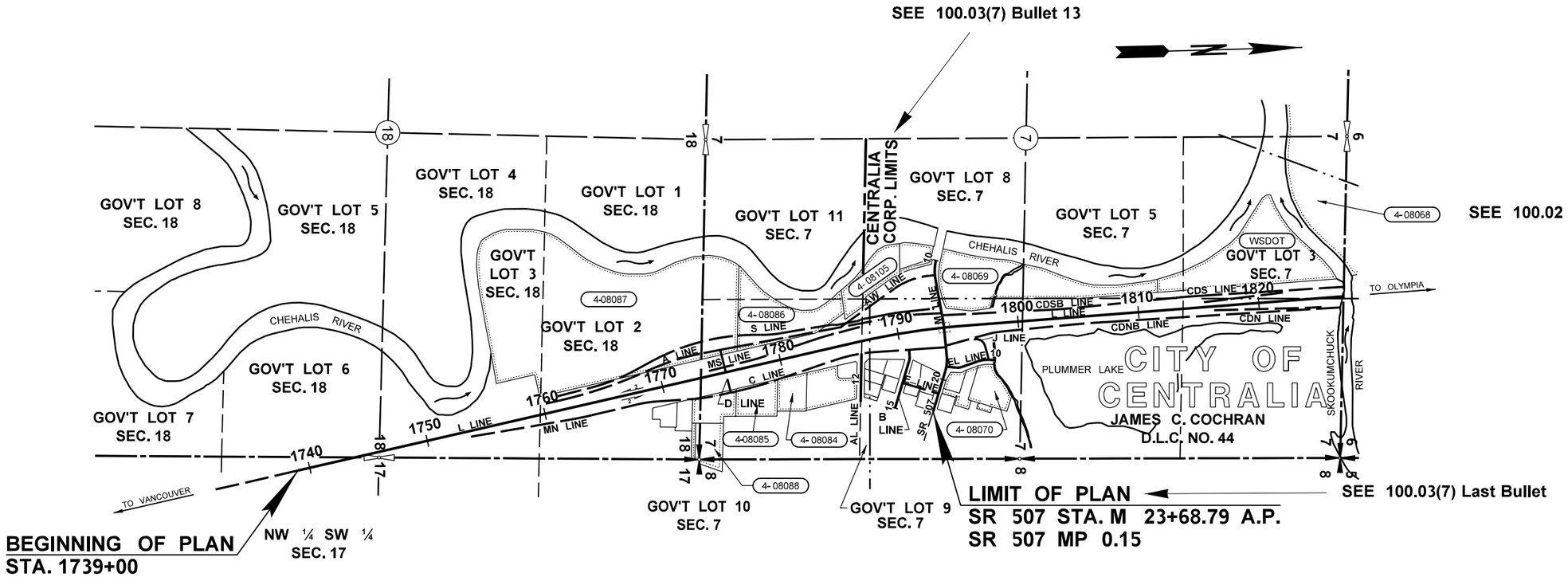
This approach is to be used by WSDOT for the maintenance and repair of the noise wall. The approach shall be through noise wall doors located at Stations XXX+XX (must be accompanied by Note No. 9).

(4) Miscellaneous Note

(a) **Traffic Movement Note**

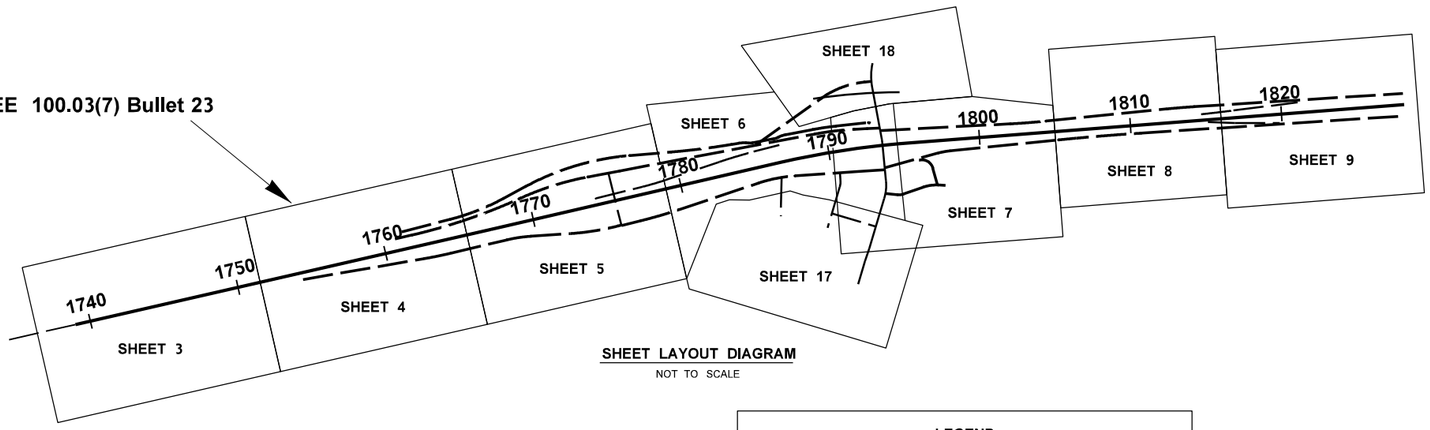
Traffic movement will be permitted over/under the highway structures at _____ (state the name of the road or the facility and the station limits on the roadway).

T.14N. R.2W. W.M.



VICINITY MAP AND TOTAL PARCEL DETAILS

TOTAL LENGTH OF PLAN = 3.05 MILES



SHEET LAYOUT DIAGRAM
NOT TO SCALE

LEGEND

PROPERTY OWNERSHIP NUMBERS -

PROPERTY LINES .....

0 500 1000
SCALE IN FEET

ALL PLANS ARE SUBJECT TO CHANGE. OWNERSHIP SHOULD BE VERIFIED. PROPOSED PROPERTY RIGHTS SHOWN MAY NOT HAVE BEEN ACQUIRED. PARTIES SEEKING CURRENT INFORMATION SHOULD CONSULT THE DEPARTMENT OF TRANSPORTATION HEADQUARTERS RIGHT OF WAY PLANS OFFICE FOR THE OFFICIAL PLAN ON FILE.

EXHIBIT A

SR 5

MELLEN ST. TO BLAKESLEE JUNCTION

LEWIS COUNTY

VICINITY MAP AND TOTAL PARCEL DETAILS
MP 80.65 TO MP 82.37
STATION L 1739+00 TO STATION L 1829+00

WASHINGTON STATE DEPARTMENT OF TRANSPORTATION
OLYMPIA, WASHINGTON

EXAMPLE 1-1

KEVIN B. MILLER — STATE OF WASHINGTON — 21403 — REGISTERED PROFESSIONAL ENGINEER

APPROVED AND ADOPTED _____

RIGHT OF WAY PLANS MANAGER

PROJECT ENGINEER

Reference	Approval	Revision Description	By

T.10N. R.8W. W.M.

CR3 10+75
N 48°13'26" E
CR3 9+75
CR3 9+53.62 P.T.
CR3 8+70
CR3 8+13.20 P.I.
CR3 5+28.65 P.C.
CR3 4+00
CR3 3+76.78 P.T.
CR3 2+40 P.I.
CR3 2+00
TURNBACK LINE
CR3 0+42.60 P.C.
CR3 N 49°10'17" W LINE
N 27°25'00" W
FOR RELINQUISHMENT TO COUNTY
RIVER ROAD
EAST DEEP
GOV'T LOT 4 SEC. 20
GOV'T LOT 7 SEC. 20
NW 1/4 SE 1/4 SEC. 20
4-05388
4-05390
4-05387
4-05389
4-05391
4-05392
4-05393
149+67.59 P.C.
150+63.61
151+75.87
150+0.90
GRADE INTERSECTION LT.
151+00 P.O.C. = CR3 0+00 P.O.T.
EXISTING SR 4
SR 4
R= 1,096'
L= 1,243.37'
S 66°31'45" E
144+48.61
144+40±
141+60±
141+00
144+67±
141+60±
TO NASELLE
GOV'T MEANDER LINE
PRIVATE ROAD
DEEP
RIVER
EBB
FLOOD
157+66.55 P.I.
20' TEMPORARY CONSTRUCTION EASEMENT
158+00
160+00
160+64.05 (100' LT.) = RR 1252+57.20 (50' RT.)
CROSSING EASEMENT
161+60.08 (100' LT.) = RR 1252+31.04 (50' LT.)
50' ACCESS EASEMENT
GRADE CROSSING
160+86.87 P.O.C. = RR 1253+45.51 P.O.T.
162+50
160+10.31 (68.44' RT.) = RR 1254+34.38 (50' RT.)
161+21.59 (66.84' RT.) = RR 1254+02.51 (50' LT.)
163+37.69
163+77.36 P.T.
20' SLOPE EASEMENT
165+17.94 P.C.
166+00
167+00
169+21.42 P.T.
BEGIN LONGITUDINAL EASEMENT
166+00 P.O.C. (55.28' RT.) = RR 2245+23.02 (50' RT.)
166+20 P.O.C. (74.67' RT.) = RR 2245+03.02 (30' RT.)
167+19.71 P.I.
169+00 P.O.C. (70.42' RT.) = RR 2242+21.00 (30' RT.)
END LONGITUDINAL EASEMENT
169+00 P.O.C. (50.42' RT.) = RR 2242+21.44 (50' RT.)
S 1°31'45" E BK.= S 2°28'00" E AHD.
TO CATHLAMET
BURLINGTON NORTHERN SANTA FE
GOV'T LOT 8 SEC. 20
GR.
WELL
HO.
DRAINFIELD

WETLANDS MITIGATION AREA NOT TO BE SOLD AND SHALL BE PRESERVED FROM DEVELOPMENT IN PERPETUITY IN ACCORDANCE WITH DEPARTMENT OF THE ARMY PERMIT NO. 93-4-00148

WETLANDS MITIGATION AREA ⑦
N 89°10'48" W 320'
N 0°49'12" E 328'
S 0°49'12" W 328'
S 89°10'48" E 320'
164+93.38 (689.23' LT.)

FOR RIGHT OF WAY EASTERLY, SEE SR 4, DEEP RIVER TO JOHNSON'S LANDING, SHEET 3 OF 12 SHEETS, DATED JUNE 22, 1943.

THIS PLAN SUPERSEDES SHEETS 1 AND 2 OF 12 SHEETS OF SR 4, DEEP RIVER TO JOHNSON'S LANDING, DATED JUNE 22, 1943. ⑤

END OF PLAN
STA. 170+00 P.O.T. BK.=
STA. 47+19.65 P.O.T. AHD.
MP 11.38

ALL PLANS ARE SUBJECT TO CHANGE. OWNERSHIP SHOULD BE VERIFIED. PROPOSED PROPERTY RIGHTS SHOWN MAY NOT HAVE BEEN ACQUIRED. PARTIES SEEKING CURRENT INFORMATION SHOULD CONSULT THE DEPARTMENT OF TRANSPORTATION HEADQUARTERS RIGHT OF WAY PLANS OFFICE FOR THE OFFICIAL PLAN ON FILE.

EXAMPLE 1-2
SR 4

DEEP RIVER BRIDGE VICINITY

WAHKIAKUM COUNTY

RIGHT OF WAY PLAN
MP 10.43 TO MP 11.38
STATION 141+00 TO STATION 170+00

WASHINGTON STATE DEPARTMENT OF TRANSPORTATION
OLYMPIA, WASHINGTON

APPROVED AND ADOPTED JUNE 2, 2004

PROJECT ENGINEER ____ RIGHT OF WAY PLANS MANAGER

DATE ____ SHEET 3 OF 3 SHEETS

① SEE 100.03(3)
② SEE 100.03(3)(b)
③ SEE 100.03(3)(c)
④ SEE 100.03(6)
⑤ SEE 100.03(7) Bullet 7
⑥ SEE 100.04(1)(b)
⑦ SEE 100.11

△ ACCESS EASEMENT
◒ INCLUDES 2.41 AC. OF WETLANDS MITIGATION AREA
* SLOPE EASEMENT
** TEMPORARY CONSTRUCTION EASEMENT
CROSSING EASEMENT - INCLUDES 0.23 AC. OF EXISTING CROSSING EASEMENT
LONGITUDINAL EASEMENT

LEGEND
PROPERTY OWNERSHIP NUMBERS -
PROPERTY LINES

0 100 200
SCALE IN FEET

OWNERSHIPS

PARCEL NO.	NAME	TOTAL AREA	R/W	LT. REMAINDER RT.		EASM'T
4-05393	B.N.S.F.	UNDETER.	‡0.39 AC.+0.13 AC.			
4-05392	MARTIN, N.M., ET AL.	27.49 AC.	◒ 2.69 AC.	24.80 AC.		△0.71 AC.*0.16 AC.
4-05391	SKEWIS, D.R.(JONES, R.S.)	24.08 AC.	0.48 AC.	23.60 AC.		** 0.09 AC.
4-05390	WEGE, G.W.	23.50 AC.	6.27 AC.	17.23 AC.		
4-05389	WEYERHAEUSER COMPANY	UNDETER.	0.23 AC.	UNDETER.		
4-05388	SEE SHEET 2					
4-05387	SEE SHEET 2					

Whenever possible, leave this space empty for revision block.

Reference	Approval	Revision Description	By
Ltr. 7-6-04	7-16-04	Added Wetlands Mit. Area and Access Easement on Lt. Vic. Sta. 164+00; Rev. areas parcel 4-05392	FLG
Ltr. 6-3-04	6-11-04	Rev. R/W on Lt. Sta. 153+00 to 155+50; Rev. areas parcel 4-05390	FLG

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1 SEE 100.03(4)
2 SEE 100.03(4) Bullet 3

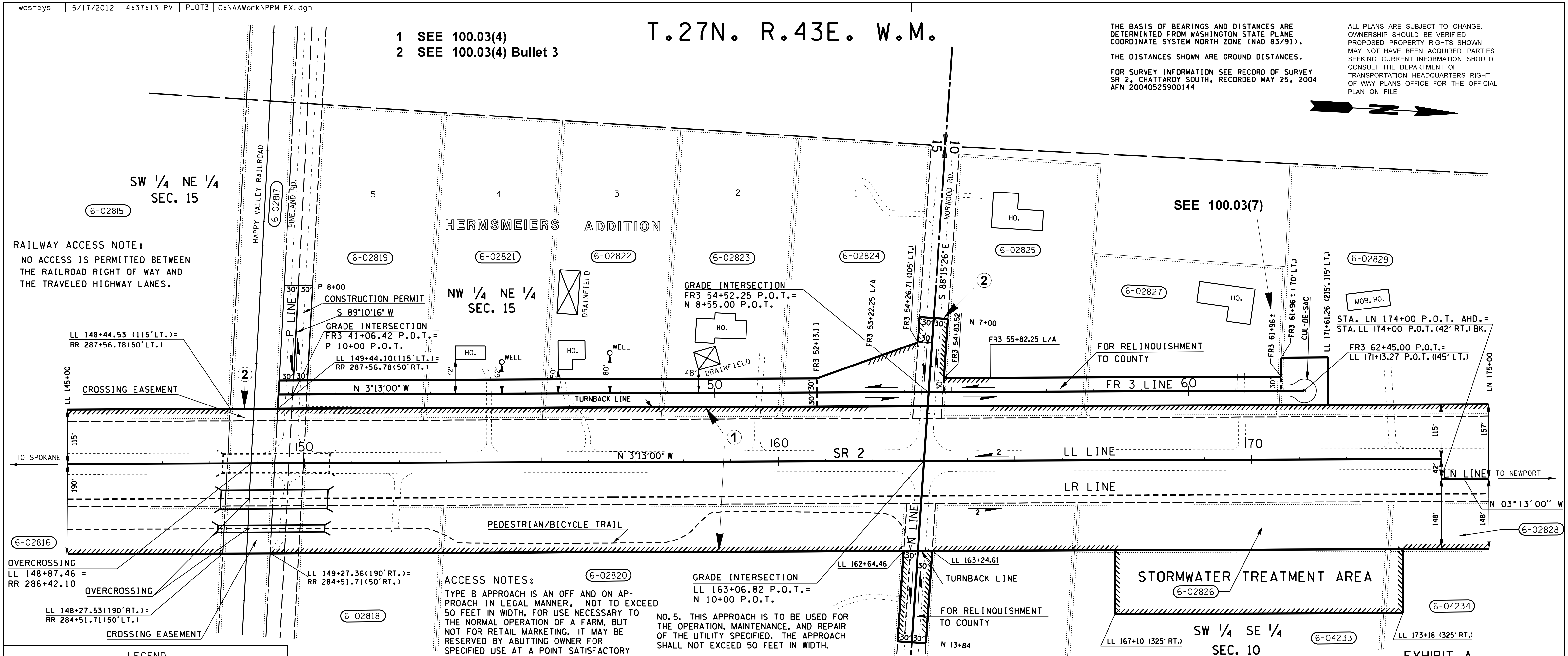
T.27N. R.43E. W.M.

THE BASIS OF BEARINGS AND DISTANCES ARE DETERMINTED FROM WASHINGTON STATE PLANE COORDINATE SYSTEM NORTH ZONE (NAD 83/91).

THE DISTANCES SHOWN ARE GROUND DISTANCES.

FOR SURVEY INFORMATION SEE RECORD OF SURVEY SR 2, CHATTAROY SOUTH, RECORDED MAY 25, 2004 AFN 20040525900144

ALL PLANS ARE SUBJECT TO CHANGE. OWNERSHIP SHOULD BE VERIFIED. PROPOSED PROPERTY RIGHTS SHOWN MAY NOT HAVE BEEN ACQUIRED. PARTIES SEEKING CURRENT INFORMATION SHOULD CONSULT THE DEPARTMENT OF TRANSPORTATION HEADQUARTERS RIGHT OF WAY PLANS OFFICE FOR THE OFFICIAL PLAN ON FILE.



RAILWAY ACCESS NOTE:
NO ACCESS IS PERMITTED BETWEEN THE RAILROAD RIGHT OF WAY AND THE TRAVELED HIGHWAY LANES.

ACCESS NOTES:

TYPE B APPROACH IS AN OFF AND ON APPROACH IN LEGAL MANNER, NOT TO EXCEED 50 FEET IN WIDTH, FOR USE NECESSARY TO THE NORMAL OPERATION OF A FARM, BUT NOT FOR RETAIL MARKETING. IT MAY BE RESERVED BY ABUTTING OWNER FOR SPECIFIED USE AT A POINT SATISFACTORY TO THE STATE AT OR BETWEEN DESIGNATED HIGHWAY STATIONS.

TYPE C APPROACH IS AN OFF AND ON APPROACH IN LEGAL MANNER, FOR SPECIAL PURPOSE AND WIDTH TO BE AGREED UPON. IT MAY BE SPECIFIED AT A POINT SATISFACTORY TO THE STATE AT OR BETWEEN DESIGNATED HIGHWAY STATIONS.

NO. 2. THIS APPROACH IS TO BE USED TO SERVE MORE THAN ONE OWNER AND/OR UTILITY, FOR ONLY THOSE OWNERSHIPS LISTED ON THE ACCESS APPROACH SCHEDULE.

NO. 5. THIS APPROACH IS TO BE USED FOR THE OPERATION, MAINTENANCE, AND REPAIR OF THE UTILITY SPECIFIED. THE APPROACH SHALL NOT EXCEED 50 FEET IN WIDTH.

PEDESTRIAN AND BICYCLE TRAFFIC WILL BE PERMITTED ACCESS AND USE OF THE TRAIL DESIGNATED ON THE RT. BETWEEN STA. LL 102+40± AND LL 162+75±. ACCESS TO THE TRAIL WILL BE PERMITTED ONLY AT:
STA. LL 102+40+ RT.
STA. LL 162+75+ RT.

LEGEND

ACCESS TO BE PROHIBITED SHOWN THUS
PROPERTY OWNERSHIP NUMBERS
PROPERTY LINES

0 100 200
SCALE IN FEET

* STORMWATER TREATMENT AREA
● INCLUDES 0.41 AC. EXISTING CROSSING EASEMENT

THIS PLAN SUPERSEDES SHEETS 4 AND 5 OF 6 SHEETS OF SR 2, DEEP CREEK VICINITY TO BEER CREEK BRIDGE, APPROVED JUNE 2, 1965, AND SHEET 2 OF 3 SHEETS OF SR 2, DEEP CREEK VICINITY TO BEER CREEK BRIDGE PLAN SHOWING ACCESS, APPROVED APRIL 2, 1965.

EXAMPLE 1-3

PARCEL NO.	NAME	TOTAL AREA	R/W	LT. REMAINDER	RT.	EASM'T	STATION ON ROADWAY	TYPE
6-04234	R. GLIDDEN	7.12 AC.	*0.11 AC.		7.01 AC.			
6-04233	H. AARON	7.12 AC.	*1.77 AC.		5.35 AC.			
	WA. WATER POWER (TRANSMISSION LINE)						LR 149+80 RT.	C-2-5
6-02829	U.R. BLAND	10.60 AC.	0.75 AC.	9.85 AC.				
6-02828	S. JONES, ET AL.	8.64 AC.	1.52 AC.		7.12 AC.			
6-02827	R. SMITH	3.08 AC.	0.79 AC.	2.29 AC.				
6-02826	H. AARON	8.64 AC.	1.52 AC.		7.12 AC.		LR 170+00 TO LR 172+00 RT.	B
6-02825	W. HERMSMEIER (WILLIAMS)	3.79 AC.	0.59 AC.	3.20 AC.				
6-02824	A. SUNDERMAN (KING)	3.79 AC.	0.73 AC.	3.06 AC.				
6-02823	M. MANTLE	3.44 AC.	0.49 AC.	2.95 AC.				
6-02822	S. PAIGE	3.56 AC.	0.49 AC.	3.07 AC.				
6-02821	T. COBB	3.67 AC.	0.49 AC.	3.18 AC.				
6-02820	B. RUTH	16.62 AC.	2.93 AC.		13.69 AC.			
6-02819	E.P. FERRY	3.79 AC.	0.49 AC.	3.30 AC.				
6-02818	I. STEVENS	4.32 AC.	0.76 AC.		3.56 AC.		LR 149+80 RT.	B-2
6-02817	HAPPY VALLEY RAILROAD	UNDETERMINED	● 0.70 AC.					
6-02816	SEE SHEET 2							
6-02815	SEE SHEET 2						LR 149+80 RT.	B-2

OWNERSHIPS — ACCESS APPROACH SCHEDULE

Whenever possible, leave this space empty for revision block.

Reference	Approval	Revision Description	By
Ltr. 9-16-04	9-24-04	Rev. L/A & added Stormwater Treatment Area on Rt. Sta. LL 167+10 to LL 173+18; Added parcels 6-04233 & 6-04234	FLS
Comm. F&O 8-19-04	8-20-04	Added Commission Findings and Order.	FLS

EXHIBIT A

LIMITED ACCESS ESTABLISHED BY THE DIRECTOR OF ENVIRONMENTAL AND ENGINEERING PROGRAMS FINDINGS AND ORDER ADOPTED AUGUST 19, 2004

LIMITED ACCESS FEATURES TENTATIVELY APPROVED BY THE RIGHT OF WAY PLANS MANAGER JUNE 3, 2004

SR 2
DEER CREEK ROAD TO CHATTAROY

SPOKANE COUNTY

RIGHT OF WAY AND LIMITED ACCESS PLAN
PARTIAL CONTROL
MP 299.69 TO MP 300.26
STATION LL 145+00 TO STATION LN 175+00

WASHINGTON STATE DEPARTMENT OF TRANSPORTATION
OLYMPIA, WASHINGTON

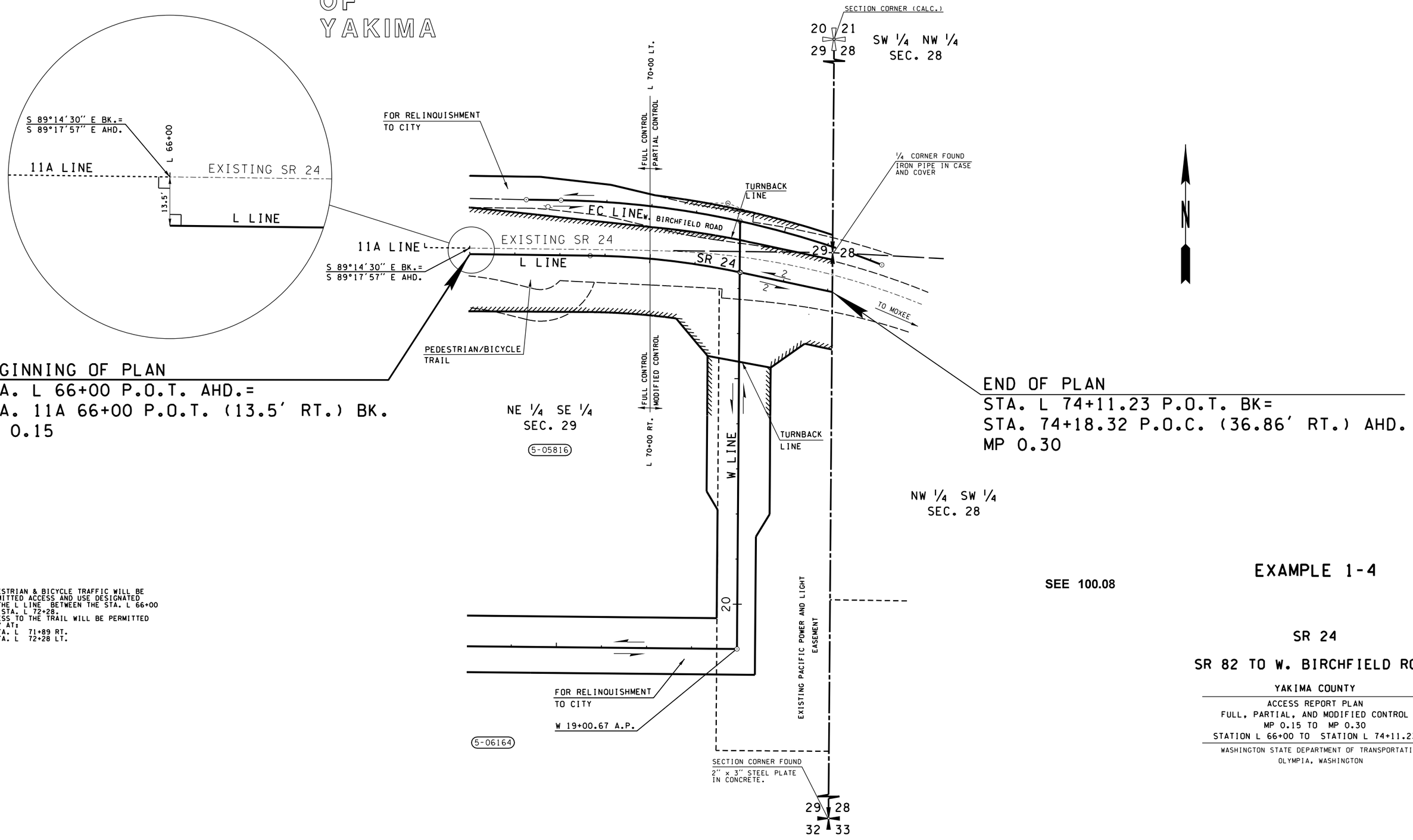
APPROVED AND ADOPTED JUNE 3, 2004

PROJECT ENGINEER — RIGHT OF WAY PLANS MANAGER
DATE — SHEET 3 OF 6 SHEETS

Designated For Limited Access Control By Commission Resolution No. 36, MARCH 24, 1955.

T.13N. R.19E. W.M.

CITY OF YAKIMA



BEGINNING OF PLAN
STA. L 66+00 P.O.T. AHD.=
STA. 11A 66+00 P.O.T. (13.5′ RT.) BK.
MP 0.15

END OF PLAN
STA. L 74+11.23 P.O.T. BK=
STA. 74+18.32 P.O.C. (36.86′ RT.) AHD.
MP 0.30

PEDESTRIAN & BICYCLE TRAFFIC WILL BE PERMITTED ACCESS AND USE DESIGNATED ON THE L LINE BETWEEN THE STA. L 66+00 AND STA. L 72+28.
ACCESS TO THE TRAIL WILL BE PERMITTED ONLY AT:
STA. L 71+89 RT.
STA. L 72+28 LT.

EXAMPLE 1-4

SR 24

SR 82 TO W. BIRCHFIELD ROAD

YAKIMA COUNTY

ACCESS REPORT PLAN
FULL, PARTIAL, AND MODIFIED CONTROL
MP 0.15 TO MP 0.30
STATION L 66+00 TO STATION L 74+11.23

WASHINGTON STATE DEPARTMENT OF TRANSPORTATION
OLYMPIA, WASHINGTON

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CURVE DATA

P.I. STATION	DELTA	RADIUS	TANGENT	LENGTH
L 77+27.76	53°42'06" RT.	1,700'	860.63'	1,593.36'
FC 23+68.35	20°49'24" RT.	2,000'	367.49'	726.87'

T.13N. R.19E. W.M.

CITY OF YAKIMA

LEGEND

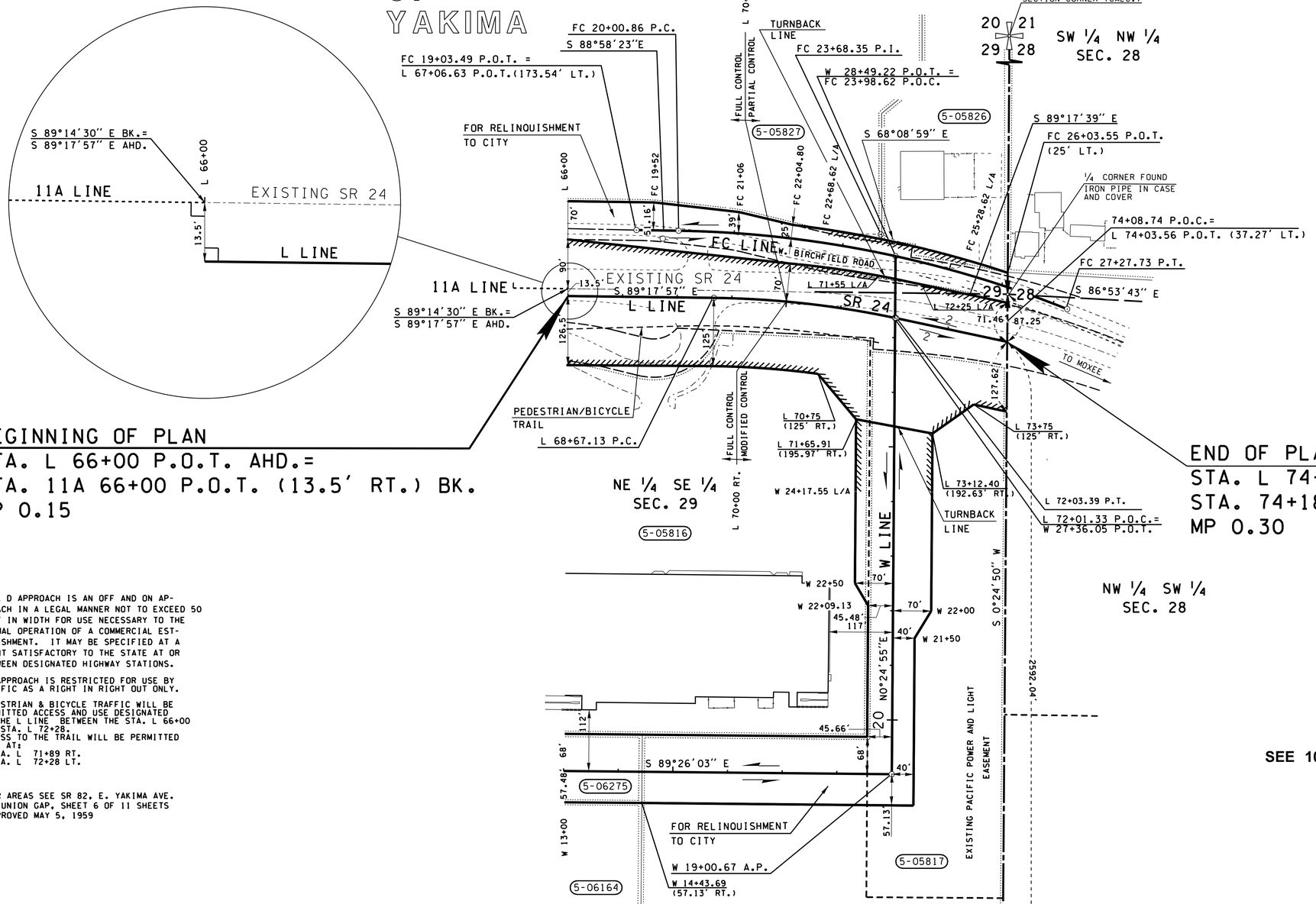
ACCESS TO BE PROHIBITED SHOWN THUS

PROPERTY OWNERSHIP NUMBERS -

PROPERTY LINES

0 100 200

SCALE IN FEET



BEGINNING OF PLAN

STA. L 66+00 P.O.T. AHD.=
STA. 11A 66+00 P.O.T. (13.5' RT.) BK.
MP 0.15

END OF PLAN

STA. L 74+11.23 P.O.T. BK.=
STA. 74+18.32 P.O.C. (36.86' RT.) AHD.
MP 0.30

TYPE D APPROACH IS AN OFF AND ON AP-PROACH IN A LEGAL MANNER NOT TO EXCEED 50 FEET IN WIDTH FOR USE NECESSARY TO THE NORMAL OPERATION OF A COMMERCIAL EST-ABLISHMENT. IT MAY BE SPECIFIED AT A POINT SATISFACTORY TO THE STATE AT OR BETWEEN DESIGNATED HIGHWAY STATIONS.

✱ APPROACH IS RESTRICTED FOR USE BY TRAFFIC AS A RIGHT IN RIGHT OUT ONLY.

PEDESTRIAN & BICYCLE TRAFFIC WILL BE PERMITTED ACCESS AND USE DESIGNATED ON THE L LINE BETWEEN THE STA. L 66+00 AND STA. L 72+28.
ACCESS TO THE TRAIL WILL BE PERMITTED ONLY AT:
STA. L 71+89 RT.
STA. L 72+28 LT.

▲ FOR AREAS SEE SR 82, E. YAKIMA AVE. TO UNION GAP, SHEET 6 OF 11 SHEETS APPROVED MAY 5, 1959

ALL PLANS ARE SUBJECT TO CHANGE. OWNERSHIP SHOULD BE VERIFIED. PROPOSED PROPERTY RIGHTS SHOWN MAY NOT HAVE BEEN ACQUIRED. PARTIES SEEKING CURRENT INFORMATION SHOULD CONSULT THE DEPARTMENT OF TRANSPORTATION HEADQUARTERS RIGHT OF WAY PLANS OFFICE FOR THE OFFICIAL PLAN ON FILE.

LIMITED ACCESS FEATURES TENTATIVELY APPROVED BY THE RIGHT OF WAY PLANS MANAGER

SEE 100.09

EXAMPLE 1-5

SR 24

SR 82 TO W. BIRCHFIELD ROAD

YAKIMA COUNTY

ACCESS HEARING PLAN
FULL, PARTIAL, AND MODIFIED CONTROL
MP 0.15 TO MP 0.30
STATION L 66+00 TO STATION L 74+11.23

WASHINGTON STATE DEPARTMENT OF TRANSPORTATION
OLYMPIA, WASHINGTON

APPROVED AND ADOPTED JUNE 4, 2004

PROJECT ENGINEER

RIGHT OF WAY PLANS ENGINEER

OWNERSHIPS

PARCEL NO.	NAME	TOTAL AREA	R/W	LT. REMAINDER RT.	EASM'T
5-06275	▲				
5-06164	▲				
5-05827	▲				
5-05826	HUMANE SOCIETY	2.65 A	0.06 A	2.59 A	
5-05817	CITY OF YAKIMA	10.61 A	3.46 A		7.15 A
5-05816	▲				

ACCESS APPROACH SCHEDULE

STATION ON ROADWAY	TYPE
W 25+00 LT.	D -✱

Whenever possible, leave this space empty for revision block.

Reference	Approval	Revision Description	By	DATE

SHEET 2 OF 2 SHEETS

TOTAL CURVE DATA			CURVE DATA			SPIRAL DATA		
P.I. STATION	DELTA	TANGENT	DELTA	RADIUS	LENGTH	o	DE	Ls
58+97.89	19°14'34"	1,021.37'	18°14'34"	5,730'	1,824.41'	1	0°30'00"	1

CURVE DATA				
P.I. STATION	DELTA	RADIUS	TANGENT	LENGTH
CL1 13+40.70	34°34'14"	573'	178.31'	345.73'
CL1 19+07.01	49°58'24"	286.50'	133.52'	249.89'

T.19N. R.3E. W.M.

STEELE STREET INTERCHANGE

LEGEND

ACCESS TO BE PROHIBITED SHOWN THUS //////////

PROPERTY OWNERSHIP NUMBERS (-)

PROPERTY LINES .....

0 50 100

SCALE IN FEET

AL1 6+75 L/A
AL1 6+08.50 (60' RT.)
BLDG.
FULL CONTROL MODIFIED CONTROL
AL1 6+08 RT.
3-08701
BLDG.
AL1 5+73.98 (50' RT.)
CL1 20+23.38 (70' RT.)
FOR RELINQUISHMENT TO COUNTY
AL1 4+42.30 (50' RT.)
AL1 5+70 (50' LT.)
AL1 5+15 LT.
FULL CONTROL MODIFIED CONTROL
50' 60'
5
TURNBACK LINE
AL1 4+42.30 (57.98' LT.)
E-NS LINE
N 80°13'58" W
GRADE INTERSECTION
CL1 22+09.46 P.O.T. =
AL1 3+72.30 P.O.T.
CL1 19+07.01 P.I.
CL1 18+50 (80', 70' RT.)
CL1 20+23.38 P.T.
20
CL1 17+73.49 P.C.
CL1 LINE N 30°15'34" W
15
CL1 15+08.12 P.T.
CL1 13+50 (90', 80' RT.)
52+53.85 (120' LT.)
CL1 10+10.70 (90' RT.)
CL1 13+40.70 P.I.
N 64°49'48" W
CL1 11+62.39 P.C.
48+76.52 T.S.
49+76.52 S.C.
CL1 10+00 P.O.T. =
52+53.85 (44' LT.)
LIMITS
COMM. BLDG.
3-08542
CORP.
LAKEWOOD
AL1 2+50 (70' LT.)
COMM. BLDG.
AL1 1+57.82 (70' LT.)
AL1 LINE
N 09°46'02" E
STEELE STREET
NS-W LINE
2 2
UNDERCROSSING
42+20.75 P.O.T. =
AR1 0+00 P.O.T. =
AL1 0+00 P.O.T.
AR1 LINE
MATCH LINE SHEET 3
140'
TO SR 5
S 68°20'18" E
45
3
3
SR 512
50
TO PUYALLUP
120'
MATCH LINE SHEET 6
MATCH LINE SHEET 4
40+00
53+00
NW 1/4 SW 1/4 SEC. 5
NE 1/4 SE 1/4 SEC. 6
GOV'T LOT 10 SEC. 6
JOHN FAUCETT D.L.C. NO. 38

ACCESS NOTES:
TYPE D APPROACH IS AN OFF AND ON APPROACH IN A LEGAL MANNER NOT TO EXCEED 50 FEET IN WIDTH FOR USE NECESSARY TO THE NORMAL OPERATION OF A COMMERCIAL ESTABLISHMENT. IT MAY BE SPECIFIED AT A POINT SATISFACTORY TO THE STATE AT OR BETWEEN DESIGNATED HIGHWAY STATIONS.

THE BASIS OF BEARINGS AND DISTANCES ARE DETERMINTED FROM WASHINGTON STATE PLANE COORDINATE SYSTEM SOUTH ZONE (NAD 83/91). THE DISTANCES SHOWN ARE GROUND DISTANCES. FOR SURVEY INFORMATION SEE RECORD OF SURVEY SR 512, STEELE ST. VICINITY, RECORDED MAY 26, 2004 AFN 20040526900022

THIS PLAN SUPERSEDES SHEETS 3, 4, AND 5 OF 6 SHEETS, SR 512, SR 5 VICINITY TO AINSWORTH AVE. VICINITY, APPROVED AUGUST 21, 1998.

EXAMPLE 1-6

FOR ACCESS HEARING PLAN SEE PLAN OF SAME TITLE APPROVED SEPTEMBER 4, 2003

EXHIBIT A

LIMITED ACCESS ESTABLISHED BY THE DIRECTOR ENVIRONMENTAL AND ENGINEERING PROGRAMS FINDINGS AND ORDER ADOPTED JUNE 1, 2004

SR 512

SR 5 INTERCHANGE VICINITY TO STEELE STREET VICINITY

PIERCE COUNTY

RIGHT OF WAY AND LIMITED ACCESS PLAN
FULL AND MODIFIED CONTROL
MP 0.76 TO MP 1.01
STATION 40+00 TO STATION 53+00

WASHINGTON STATE DEPARTMENT OF TRANSPORTATION
OLYMPIA, WASHINGTON

APPROVED AND ADOPTED JUNE 7, 2004

PROJECT ENGINEER

RIGHT OF WAY PLANS ENGINEER

DATE

SHEET 5 OF 7 SHEETS

DESIGNATED FOR LIMITED ACCESS CONTROL BY COMMISSION RESOLUTION NO. 526, AUGUST 19, 1957.

SEE 100.03(4) Bullet 5

PARCEL NO.	NAME	TOTAL AREA	R/W	LT. REMAINDER RT.	EASM'T	STATION ON ROADWAY	TYPE
-							
-							
-							
3-08701	CAPITAL S INVESTMENT CORP.	59,701	ACCESS ONLY	59,701		AL1 6+33 RT.	D
3-08542	SEE SHEET 3					AL1 5+40 LT.	D

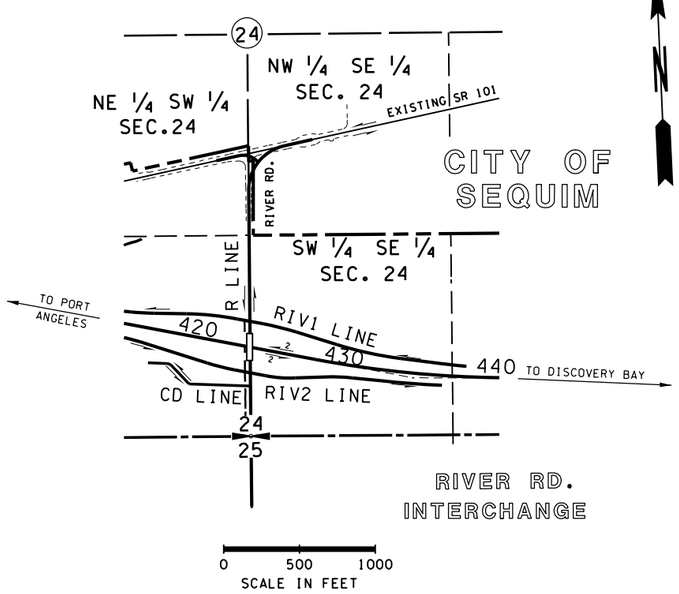
OWNERSHIPS — TOTAL AREA IS FROM ASSESSOR'S RECORDS AND ALL AREAS SHOWN IN SQUARE FEET

ACCESS APPROACH SCHEDULE

Reference	Approval	Revision Description	By

Whenever possible, leave this space empty for revision block.

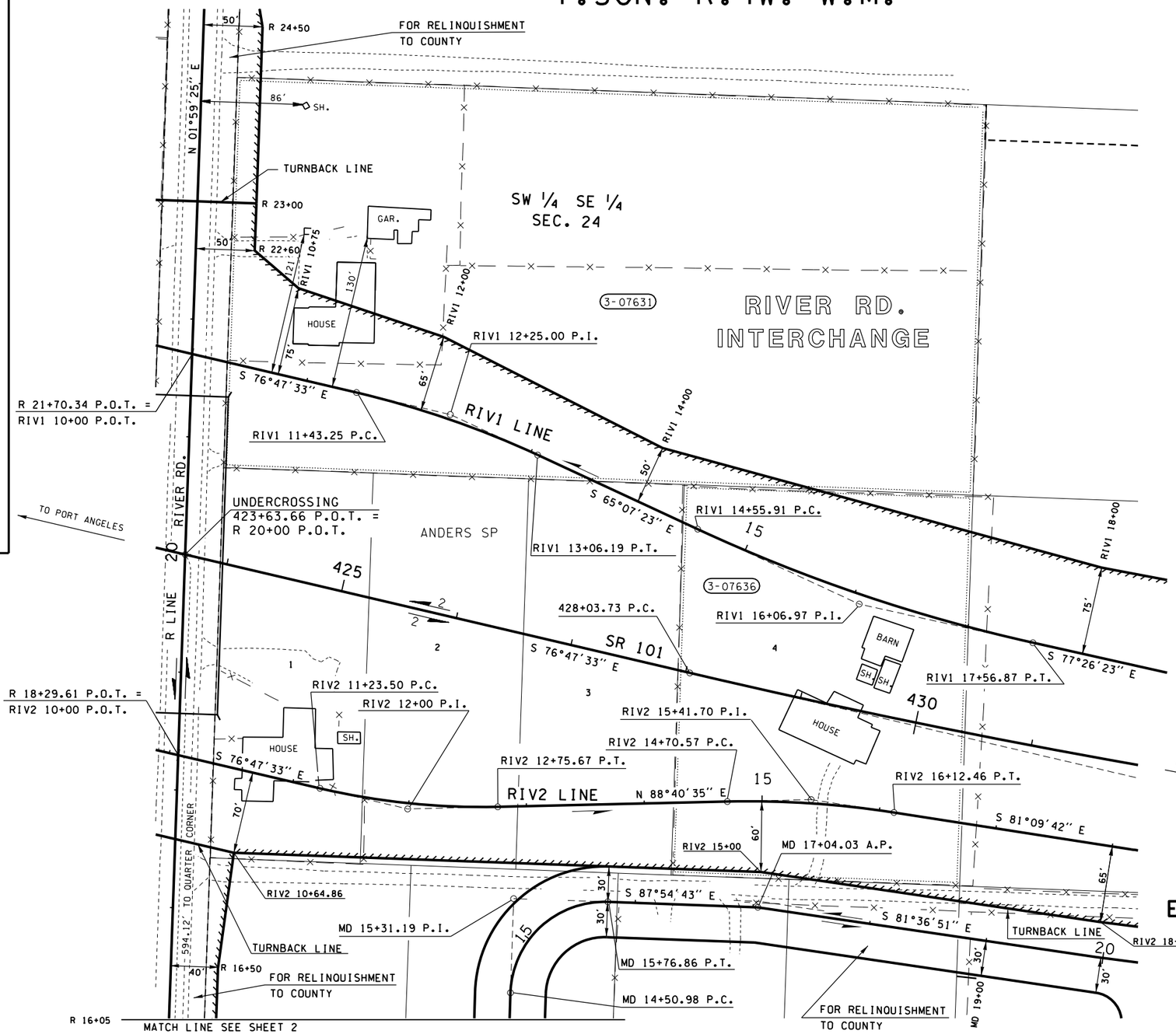
T.30N. R.4W. W.M.



VICINITY MAP

CURVE DATA				
P.I. STATION	DELTA	RADIUS	TANGENT	LENGTH
RIV1 12+25	11°40'10" RT.	800'	81.75'	162.94'
RIV2 12+00	14°31'52" LT.	600'	76.50'	152.17'
RIV2 15+41.70	10°09'43" RT.	800'	71.13'	141.89'
MD 15+31.19	90°08'45" RT.	80'	80.20'	125.87'

T.30N. R.4W. W.M.



SEE 100.07

SEE 100.10(5)

ALL PLANS ARE SUBJECT TO CHANGE. OWNERSHIP SHOULD BE VERIFIED. PROPOSED PROPERTY RIGHTS SHOWN MAY NOT HAVE BEEN ACQUIRED. PARTIES SEEKING CURRENT INFORMATION SHOULD CONSULT THE DEPARTMENT OF TRANSPORTATION HEADQUARTERS RIGHT OF WAY PLANS OFFICE FOR THE OFFICIAL PLAN ON FILE.

EXAMPLE 1-7

EXHIBIT MAP
SR 101
SEQUIM BYPASS

LEGEND

ACCESS TO BE PROHIBITED SHOWN THUS

PROPERTY OWNERSHIP NUMBERS -

PROPERTY LINES

0 50 100
SCALE IN FEET

PARCEL NO.	NAME	TOTAL AREA	R/W	LT. REMAINDER RT.	EASM'T
3-07636	BOUSHEY (CORNISH)	81,337	79,229	2,108	
3-07631	ZALEINSKI	211,041	46,057	164,984	

TOTAL AREA IS FROM ASSESSOR'S RECORDS UNLESS OTHERWISE NOTED.

OWNERSHIPS

ALL AREAS ARE SHOWN IN SQUARE FEET UNLESS OTHERWISE NOTED.

Whenever possible, leave this space empty for revision block.

Reference	Approval	Revision Description	By

CLALLAM COUNTY

PARCELS 3-07631 AND 3-07636

WASHINGTON STATE DEPARTMENT OF TRANSPORTATION
OLYMPIA, WASHINGTON

DATE JUNE 7, 2004 SHEET 1 OF 2 SHEETS

CURVE DATA				
P.I. STATION	DELTA	RADIUS	TANGENT	LENGTH
LS 316+17.28	37°25'30" RT.	7639.44'	2581.66'	4990.00'

REGION NO.	STATE	FEDERAL AID PROJECT NO.	BRIDGE NO.
10	WASH.	DPS-0027 (001)	

T.14N. R.32E. W.M.

NE 1/4 NE 1/4
SEC. 7

SE 1/4 SE 1/4
SEC. 6

SW 1/4 SW 1/4
SEC. 5

NW 1/4 SW 1/4
SEC. 5

NE 1/4 SW 1/4
SEC. 5

NW 1/4 NW 1/4
SEC. 8

SE 1/4 SW 1/4
SEC. 5

5-05697

5-05694

5-05695

5-05858

COVAN ROAD

ROXBORO ROAD

MEYERS ROAD

LS 316+17.28 P.I.

LS 315+22 (89' LT)

N 09°16'30" W

N 37°09'00" E

LS 316+40 (234' LT)

CUL -DE- SAC

FOR RELINQUISHMENT TO COUNTY

TURNBACK LINE

LS 317+47 (75' LT)

R= 256.5'

LS 315+37.63 (100.46' LT)

LS 315+87.18

LS 304+00

LS 324+70.26 (48.94' LT.)

GP 11395-6

TEMPORARY CONSTRUCTION EASEMENT

310

SR 395

320

330

LS LINE

LN LINE

LS 334+00

TO MESA

TO LIND

232

175'

225'

LS 317+43 (225' RT)

LS 321+50 (300 RT)

LS 320+50 (225' RT)

LS 317+99.76 (362' RT)

LS 330+00 (300' RT)

LS 331+00 (225' RT)

LS 314+47 (225' RT)

LS 317+31 (368' RT)

TURNBACK LINE

FOR RELINQUISHMENT TO COUNTY

CUL -DE- SAC

SEE 100.03(8)(e)

SEE 100.11

NOTE: Wiggled out items should be green

THIS PLAN SUPERSEDES SHEETS 6 AND 7 OF 19 SHEETS OF SR 395, FRANKLIN COUNTY LINE TO HEDRICK-COLMAN ROAD, APPROVED JUNE 4, 1957 AND SHEET 2 OF 5 SHEETS OF SR 395, FRANKLIN COUNTY LINE TO MUSE ROAD PLAN SHOWING ACCESS, APPROVED MARCH 12, 1957

WASHINGTON STATE PLAN COORD. SYSTEM (METERS)			
GPS NUMBER	NORTHING	EASTING	CONV. ANGLE
GP11395-6	152 357.196	627 070.782	1° 12' 25"

THE BASIS OF BEARINGS AND DISTANCES ARE DETERMINED FROM WASHINGTON STATE PLANE COORDINATE SYSTEM SOUTH ZONE (NAD 83/91).

THE DISTANCES SHOWN ARE GROUND DISTANCES. TO OBTAIN THE GRID DISTANCE, CONVERT THE GROUND DISTANCE TO METERS AND MULTIPLY BY THE COMBINED FACTOR OF 0.99985589. THE COMBINED SCALE FACTOR IS DERIVED BY MULTIPLYING THE ELEVATION FACTOR OF 0.99993958 BY THE SCALE FACTOR OF 0.99991630.

METERS = FEET MUTIPLIED BY (12/39.37)

NOTE: Wiggled out items should be green

~~TEMPORARY CONSTRUCTION EASEMENT~~

PARCEL NO.	NAME	TOTAL AREA	R/W		LT. REMAINDER RT.	EASM'T
5-05858	H. PANNKUK (V.BAKER)	225.86 AC.	1.92 AC.		228.94 AC.	
5-05697	R. BAILIE	SEE SHEET 12				
~~5-05696~~	NOT USED					
5-05695	R. KING	SEE SHEET 13				
5-05694	B. PHELPS	349.71 AC.	45.51 AC.	78.34 AC.	225.86 AC.	~~0.74 AC.~~

OWNERSHIPS

LEGEND

ACCESS TO BE PROHIBITED SHOWN THUS ////////

PROPERTY OWNERSHIP NUMBERS (5-05700)

PROPERTY LINES .....

0 100 200

SCALE IN FEET

Letter 8-31-93	10-4-93	Revised areas parcel 5-05694	HEP
Letter 12-10-92	2-31-92	Deleted parcel 5-05696; Added parcel 5-05694; Revised Sta. LS 315+37.53 on Lt.	HEP
Authority	Date	Subsequent Approval	By

EXHIBIT A

LIMITED ACCESS ESTABLISHED BY ASSISTANT SECRETARY FOR PROGRAM DEVELOPMENT FINDINGS AND ORDER ADOPTED OCTOBER 30, 1992

FOR LIMITED ACCESS HEARING PLAN SEE PLAN OF SAME TITLE APPROVED JUNE 25, 1992

SR 395 MP 54.22 TO MP 61.76

CONNELL VIC. TO MUSE ROAD INTERCHANGE

FRANKLIN AND ADAMS COUNTIES

RIGHT OF WAY AND LIMITED ACCESS PLAN
FULL CONTROL
STATION LS 304+00 TO STATION LS 334+00

WASHINGTON STATE DEPARTMENT OF TRANSPORTATION
OLYMPIA, WASHINGTON

DUANE BERENTSON SECRETARY

EUGENE R. BURCH
STATE OF WASHINGTON
13681
REGISTERED PROFESSIONAL ENGINEER
EXPIRES MAY 16, 1993

STATE DESIGN ENGINEER

APPROVED OCTOBER 30, 1992
SHEET 14 OF 25 SHEETS

DESIGNATED FOR LIMITED ACCESS CONTROL BY COMM. RES. NO. 95, JULY 23, 1953

EXAMPLE 1-8

westbys	5/21/2012	10:33:10 AM	Plot 9a	C:\AAWork\PPM EX.dgn

CURVE DATA				
P.I. STATION	DELTA	RADIUS	TANGENT	LENGTH
255+64.49	17°35'35" (R) RT	2500'	386.86'	767.64'

LIMIT OF PLAN
SR 524 STA. MR 5+20 P.O.T. AHD.=
SR 524 STA. 4+80 P.O.T. BK.

T.27N. R.5E. W.M.

MATCH LINE SEE THIS SHEET SR 524 MP 12.75

MR 6+10

70' 60'

S 87°31'17" E AHD. =
N 89°31' W BK.

70' 75'

S 87°31'17" E

FOR R/W WESTERLY, SEE SR 524, JCT. SR 527 TO JCT. SR 9, SHEET 2 OF 2 SHEETS, ADOPTED OCTOBER 27, 1995

MR 6+10 MATCH LINE SEE THIS SHEET MR 6+00 (60', 75' RT.)

252+87 (651'± LT.)

254+32± (663'± LT.)

NE ¼ NE ¼
SEC. 27

MR 7+22± (70', 41' RT.)

SR 524

MR LINE

S 87°31'17" E

STORMWATER TREATMENT AREA

SEE 100.03(1)

✱ SPIRAL DATA SHOWN REFERENCES R/W CENTERLINE PER SR 9, WOODINVILLE TO SNOHOMISH, APPROVED MAY 24, 1938

MR 8+70 (41', 42' RT.)

MR 8+95.30 (42' RT.)

R= 55' L= 54.9'

245+68.97 (60' LT.)

MR 8+81.63 (60', 62.47' LT.)

R= 91' L= 44.5'

247+13.08 (75,15' LT.)

R= 59' L= 47.58'

247+55.68 (57' LT.)

247+90 (57', 60' LT.)

249+70 (60', 75' LT.)

251+55± (75', 55' LT.)

253+01.30 (70' LT.)

253+01.77 (55' LT.)

254+81± (70', 69.60' LT.)= 255+00± (50' LT. 1938 C/L)

255+34.97 (73.45' LT.)= 255+54.5 (50' LT. 1938 C/L)

a= 1 2/3 L= 2.4 de= 4°48' 1938 C/L ✱

R= 1,482.39' L= 213.44'

257+41.82 (80.24' LT)= 257+59.5 (50' LT 1938 C/L)

a= 1 2/3 L= 2.4 de= 4°48'00" 1938 C/L ✱

FOR R/W SOUTHERLY, SEE SR 9, SR 522 TO CLEARVIEW VIC., SHEET 9 OF 18 SHEETS, APPROVED SEPTEMBER 16, 1994.

SE ¼ SE ¼
SEC. 22

251+77.63 P.C.

OVERLAND ROAD (NOT BUILT)

TO WOODINVILLE

245 27 22 23 250 SR 9 N 1°21'20" E 255

N 1°10'53" E

246+34.80 A.P. = MR 10+00.00 A.P.

60'

61.5'

255+64.49 P.I.

79.12'

TO SNOHOMISH

245+39.87 (61.5' RT.)

R= 55.50' L= 54.95'

MR 10+94.35 (55' RT.)

247+24 (65' RT.)

249+10 (65', 70' RT.)

250+70 (70', 80' RT.)

255+20 (80', 90' RT.)

80'

258+00 (90', 80' RT.)

258+50

EXISTING BONNEVILLE POWER ADMINISTRATION EASEMENT (300' WIDE)

MR 11+35 (70' LT.)

SW ¼ SW ¼
SEC. 23

SR 9

SR 524 TO 197TH ST SE VIC

SNOHOMISH COUNTY

RIGHT OF WAY PLAN
MP 1.54 TO MP 1.81
STATION 244+50 TO STATION 258+50

WASHINGTON STATE DEPARTMENT OF TRANSPORTATION
OLYMPIA, WASHINGTON

APPROVED AND ADOPTED _____

PROJECT ENGINEER

RIGHT OF WAY PLANS MANAGER

BEGINNING OF PLAN
STA. 244+50
MP 1.54

NW ¼ NW ¼
SEC. 26

S 89°21'44" E

THIS PLAN SUPERSEDES SHEETS 9 AND 10 OF 18 OF SR 9, SR 522 TO CLEARVIEW VIC., APPROVED SEPTEMBER 16, 1994.

THE BASIS OF BEARINGS AND DISTANCES ARE DETERMINED FROM WASHINGTON STATE PLANE COORDINATE SYSTEM NORTH ZONE (NAD 83/91).

THE DISTANCES SHOWN ARE GROUND DISTANCES.

FOR SURVEY INFORMATION SEE RECORD OF SURVEY SR 9, SR 524 (MALTBY RD) VIC. TO 164TH ST SE VIC. RECORDED IN SNOHOMISH COUNTY, WASHINGTON ON JANUARY 3, 2007 UNDER AFN 200701035253.

ALL PLANS ARE SUBJECT TO CHANGE. OWNERSHIP SHOULD BE VERIFIED. PROPOSED PROPERTY RIGHTS SHOWN MAY NOT HAVE BEEN ACQUIRED. PARTIES SEEKING CURRENT INFORMATION SHOULD CONSULT THE DEPARTMENT OF TRANSPORTATION HEADQUARTERS RIGHT OF WAY PLANS OFFICE FOR THE OFFICIAL PLAN ON FILE.

LEGEND

PROPERTY OWNERSHIP NUMBERS -

PROPERTY LINES

0 50 100
SCALE IN FEET

EXAMPLE 1-9a

55' 15 70' MR 15+15

FOR R/W EASTERLY, SEE SR 524, JCT. SR 9 TO JCT. SR 522, SHEET 1 OF 1 SHEET, ADOPTED OCTOBER 27, 1995

N 89°43'33" E AHD.=
S 89°21'44" E BK.

LIMIT OF PLAN
SR 524 STA. MR 15+15 P.O.T. BK.=
SR 524 STA. 76+74.4 P.O.T. AHD.
SR 524 MP 12.94

Whenever possible, leave this space empty for revision block.

Reference	Approval	Revision Description	By

SHEET 2 OF 6 SHEETS

westbys	5/21/2012	10:33:11 AM	Plotted By	C:\AAWork\PPM EX.dgn

CURVE DATA

P.I. STATION	DELTA	RADIUS	TANGENT	LENGTH
263+94.15	2°17'26" LT.	10,500'	209.92'	419.78'
269+94.57	2°17'26" RT.	10,500'	209.92'	419.78'

T.27N. R.5E. W.M.

EXISTING BONNEVILLE POWER ADMINISTRATION EASEMENT (300' WIDE)

SEE 100.03(1)

✱ SPIRAL DATA SHOWN REFERENCES R/W CENTERLINE PER SR 9, WOODINVILLE TO SNOHOMISH, APPROVED MAY 24, 1938

NE ¼ SE ¼ SEC. 22

SE ¼ SE ¼ SEC. 22

S 70°59'07" E RADIAL

CULVERT & WALL EASEMENT

a= 1 2/3
L= 2.4
de= 4°48'00"
1938 C/L ✱

259+79.55 (78.30' LT.)=
259+99.5 (50' LT 1938 C/L)

OVERLAND ROAD (NOT BUILT)

1-14848

1-14937

TEMPORARY CONSTRUCTION EASEMENT

266+90 (105', 70', 65.66' LT.)

265+90 (69.76', 105' LT.)

GARAGE

HOUSE

100'

96'

272+30 (70', 170' LT.)

TEMPORARY CONSTRUCTION EASEMENT

272+50

THIS PLAN SUPERSEDES SHEETS 10 AND 11 OF 18 SHEETS OF SR 9, SR 522 TO CLEARVIEW VIC., APPROVED SEPTEMBER 16, 1994.

THE BASIS OF BEARINGS AND DISTANCES ARE DETERMINED FROM WASHINGTON STATE PLANE COORDINATE SYSTEM NORTH ZONE (NAD 83/91).

THE DISTANCES SHOWN ARE GROUND DISTANCES.

FOR SURVEY INFORMATION SEE RECORD OF SURVEY SR 9, SR524 (MALTBY RD) VIC. TO 164TH ST SE VIC. RECORDED IN SNOHOMISH COUNTY, WASHINGTON. ON JANUARY 3, 2007 UNDER AFN 200701035253.

79.12'

259+45.27 P.T.

261+84.23 P.C.

263+94.15 P.I.

266+04.01 P.T.

267+84.65 P.C.

269+94.57 P.I.

272+04.43 P.T.

70'

TO WOODINVILLE

260

N 18°56'54" E

SR 9

265

N 16°39'28" E

270

N 18°56'55" E

80'

80'

258+50

260+12± (70' RT.)

260+16± (80' RT.)

260+19± (90' RT.)

260+50 (90', 70' RT.)

TEMPORARY CONSTRUCTION EASEMENT

1-14844

263+63± (70' RT.)

263+76± (110' RT.)

264+10 (110', 70' RT.)

TEMPORARY CONSTRUCTION EASEMENT

1-14846

1-14845

265+70 (70', 75' RT.)

265+73± (75' RT.)

265+86± (120' RT.)

108'

132'

FOUNTAIN

COMM. BLDG.

266+90 (75', 85' RT.)

267+40 (85', 75' RT.)

266+70 (120', 75' RT.)

1-14847

TEMPORARY CONSTRUCTION EASEMENT

269+00 (75', 65' RT.)

270+50 (65', 70' RT.)

272+00 (70', 80' RT.)

SW ¼ SW ¼ SEC. 23

NW ¼ SW ¼ SEC. 23

SP 7 (1-81)

HOUSE

SHED

SH

ALL PLANS ARE SUBJECT TO CHANGE. OWNERSHIP SHOULD BE VERIFIED. PROPOSED PROPERTY RIGHTS SHOWN MAY NOT HAVE BEEN ACQUIRED. PARTIES SEEKING CURRENT INFORMATION SHOULD CONSULT THE DEPARTMENT OF TRANSPORTATION HEADQUARTERS RIGHT OF WAY PLANS OFFICE FOR THE OFFICIAL PLAN ON FILE.

♦ CALCULATED
◑ TEMPORARY CONSTRUCTION EASEMENT

LEGEND

PROPERTY OWNERSHIP NUMBERS (-)

PROPERTY LINES

0 50 100
SCALE IN FEET

PARCEL NO.	NAME	TOTAL AREA	R/W	LT. REMAINDER RT.		EASM'T
1-14937	MENARD	♦ 58,837				◑ 1,740
1-14848	KING	♦ 37,562	658	36,904		◑ 1,984
1-14847	BEGUM, ET AL.	♦ 219,400	9,710		209,690	◑ 4,091
1-14846	MCAULIFFE	♦ 44,139	6,353		37,786	
1-14845	MCDANIEL	♦ 130,439	2,891		127,548	◑ 1,637
1-14844	MADLINGER	♦ 191,408	16,834	28,367	146,207	◑ 683

TOTAL AREA IS FROM ASSESSOR'S RECORDS UNLESS OTHERWISE NOTED.

OWNERSHIPS

ALL AREAS ARE SHOWN IN SQUARE FEET UNLESS OTHERWISE NOTED.

EXAMPLE 1-9b

Whenever possible, leave this space empty for revision block.

Reference	Approval	Revision Description	By

SR 9

SR 524 TO 197TH ST SE VIC

SNOHOMISH COUNTY

RIGHT OF WAY PLAN
MP 1.81 TO MP 2.07
STATION 258+50 TO STATION 272+50

WASHINGTON STATE DEPARTMENT OF TRANSPORTATION
OLYMPIA, WASHINGTON

APPROVED AND ADOPTED _____

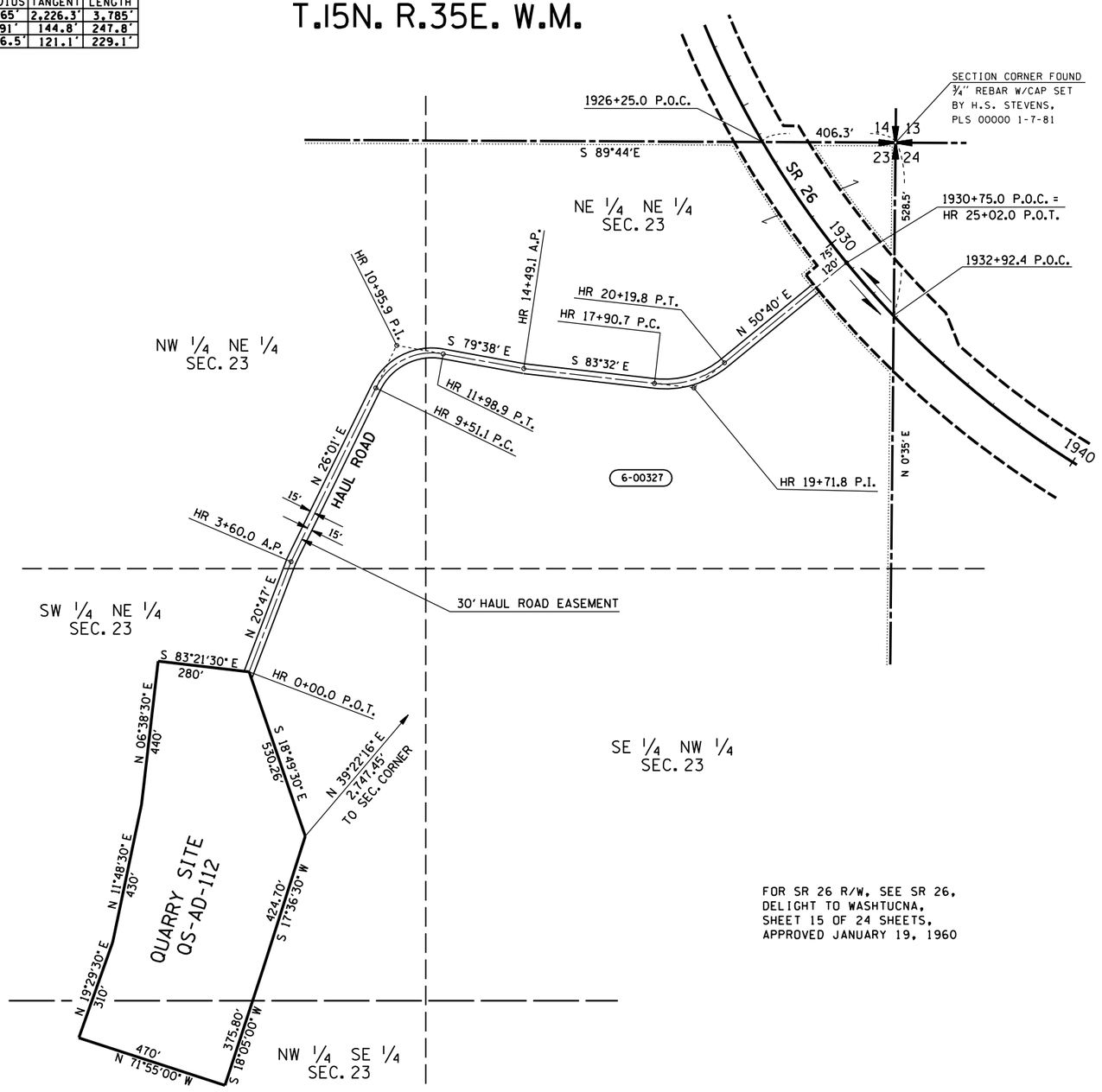
PROJECT ENGINEER

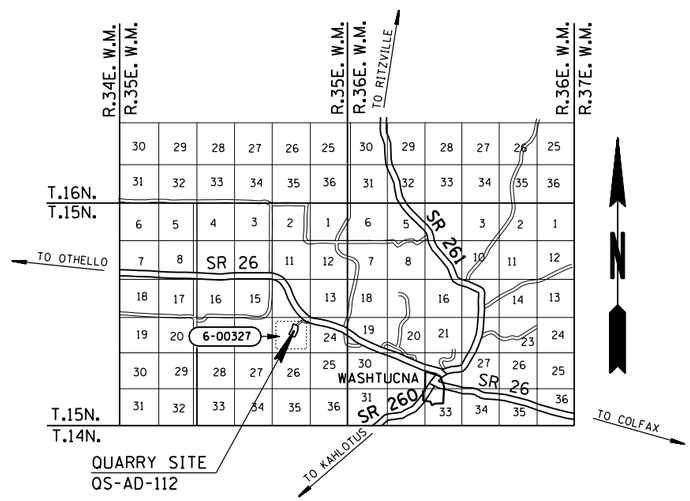
RIGHT OF WAY PLANS MANAGER

westbys	5/21/2012	10:41:46 AM	PLOT11	C:\AAWork\PPM EX.dgn

CURVE DATA				
P.I. STATION	DELTA	RADIUS	TANGENT	LENGTH
1945+11.4	75°42' LT.	2,865'	2,226.3'	3,785'
HR 10+95.9	74°21' RT.	191'	144.8'	247.8'
HR 19+71.8	45°49' LT.	286.5'	121.1'	229.1'

T.15N. R.35E. W.M.





VICINITY MAP AND TOTAL PARCEL DETAIL

0 2 4
SCALE IN MILES

FOR SR 26 R/W, SEE SR 26,
DELIGHT TO WASHTUCNA,
SHEET 15 OF 24 SHEETS,
APPROVED JANUARY 19, 1960

ALL PLANS ARE SUBJECT TO CHANGE. OWNERSHIP SHOULD BE VERIFIED. PROPOSED PROPERTY RIGHTS SHOWN MAY NOT HAVE BEEN ACQUIRED. PARTIES SEEKING CURRENT INFORMATION SHOULD CONSULT THE DEPARTMENT OF TRANSPORTATION HEADQUARTERS RIGHT OF WAY PLANS OFFICE FOR THE OFFICIAL PLAN ON FILE.

SEE 100.05(2)(i)

PARCEL NO.	NAME	TOTAL AREA	TAKE	REMAINDER	EASM'T
6-00327	WALKER, HIRAM	639.20 AC.	6.27 AC.	632.93 AC.	* 1.64 AC.

OWNERSHIPS

* HAUL ROAD EASEMENT

LEGEND

PROPERTY OWNERSHIP NUMBERS -

PROPERTY LINES

0 50 100
SCALE IN FEET

EXAMPLE 1-10

Whenever possible, leave this space empty for revision block.

Reference	Approval	Revision Description	By	Date

ADAMS COUNTY
SUNDRY SITE PLANS

QUARRY SITE OS-AD-112

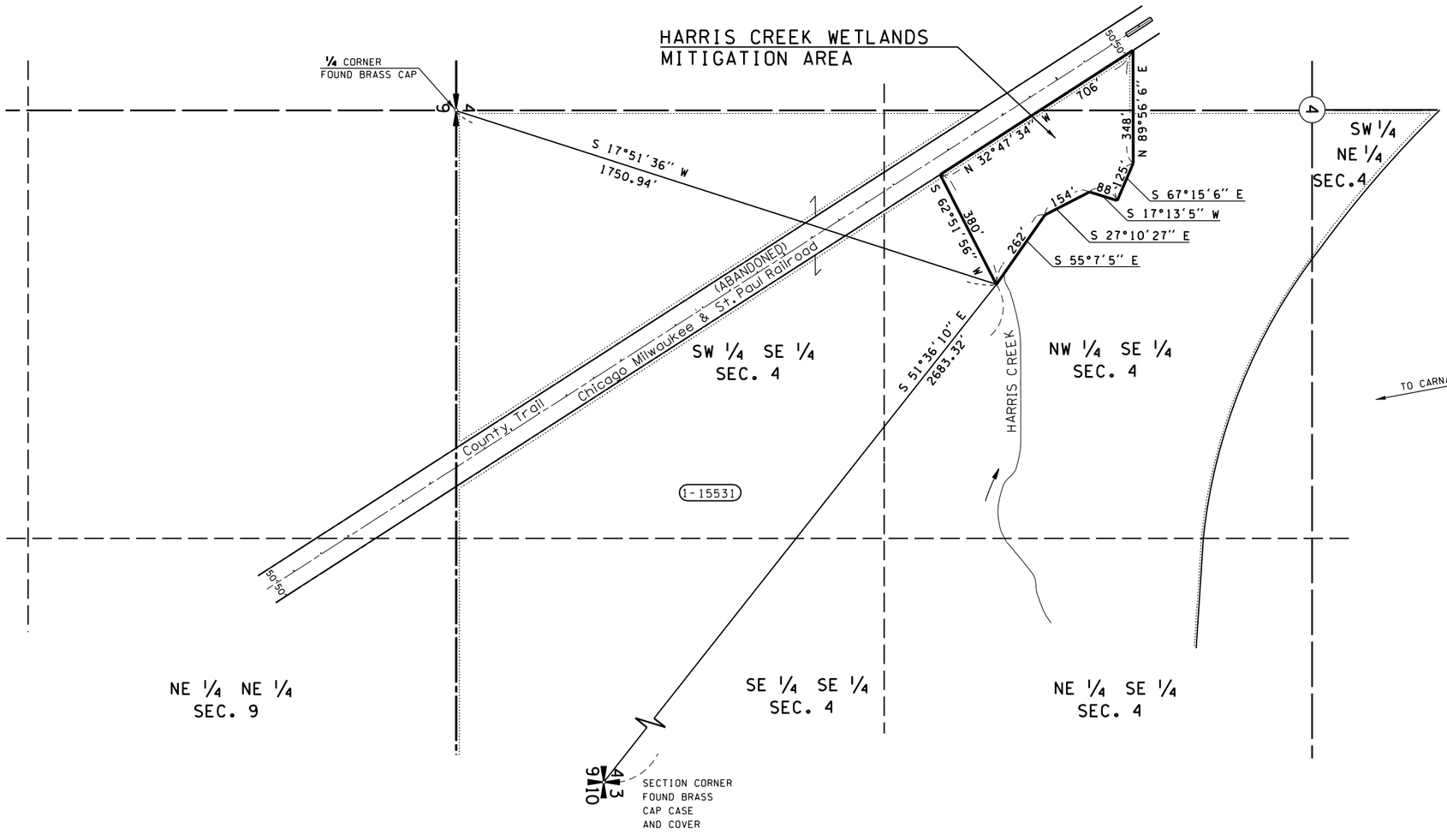
WASHINGTON STATE DEPARTMENT OF TRANSPORTATION
OLYMPIA, WASHINGTON

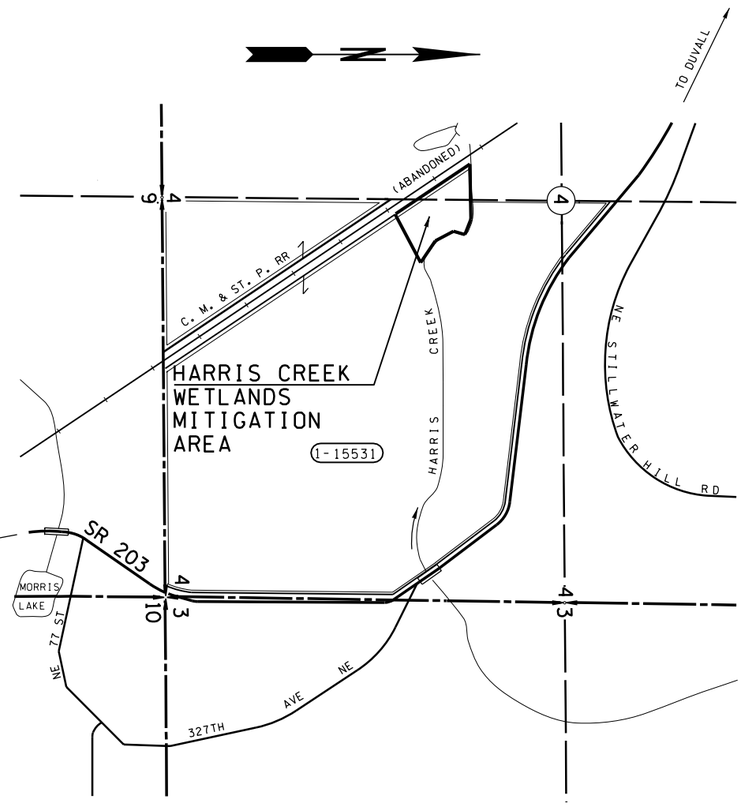
APPROVED AND ADOPTED JULY 1, 2004

PROJECT ENGINEER

RIGHT OF WAY PLANS MANAGER

T.25N. R.7E. W.M.





VICINITY MAP & TOTAL PARCEL DETAIL

0 500 1000
SCALE IN FEET

△ FOR AREAS SEE SR 203, VICINITY NE 77TH STREET, SHEET 4 OF 4 SHEETS, APPROVED AUGUST 30, 1996

SEE 100.05(2)(i)

ALL PLANS ARE SUBJECT TO CHANGE. OWNERSHIP SHOULD BE VERIFIED. PROPOSED PROPERTY RIGHTS SHOWN MAY NOT HAVE BEEN ACQUIRED. PARTIES SEEKING CURRENT INFORMATION SHOULD CONSULT THE DEPARTMENT OF TRANSPORTATION HEADQUARTERS RIGHT OF WAY PLANS OFFICE FOR THE OFFICIAL PLAN ON FILE.

KING COUNTY
SUNDRY SITE PLANS

HARRIS CREEK
WETLANDS MITIGATION AREA

WASHINGTON STATE DEPARTMENT OF TRANSPORTATION
OLYMPIA, WASHINGTON

EXAMPLE 1-11

PARCEL NO.	△ NAME	△ TOTAL AREA	△ R/W	△ LT. REMAINDER RT.	△ EASM'T
1-15531					

OWNERSHIPS

LEGEND
PROPERTY OWNERSHIP NUMBERS (-)
PROPERTY LINES
0 50 100
SCALE IN FEET

Whenever possible, leave this space empty for revision block.

Reference	Approval	Revision Description	By	Date

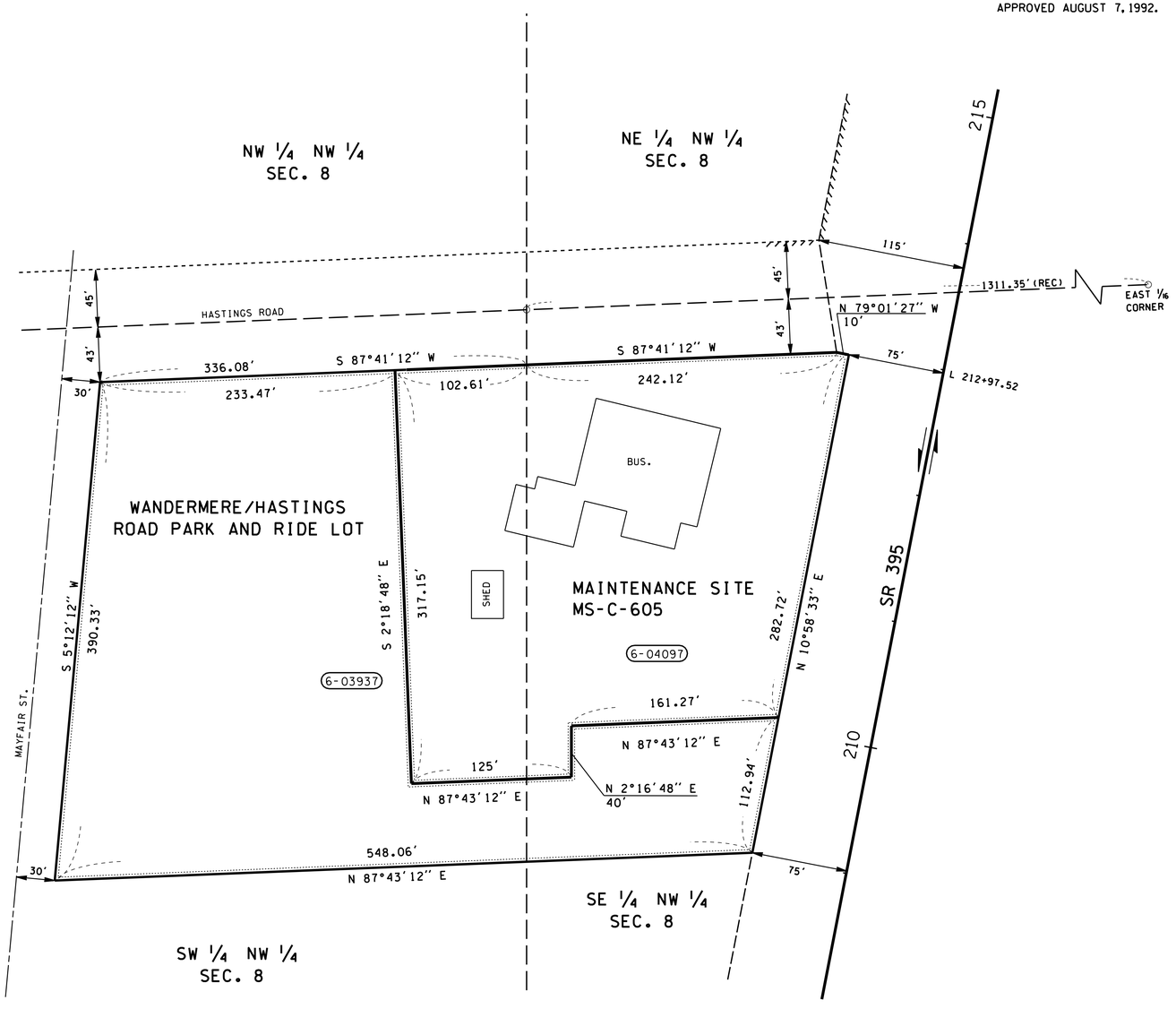
APPROVED AND ADOPTED JULY 2, 2004

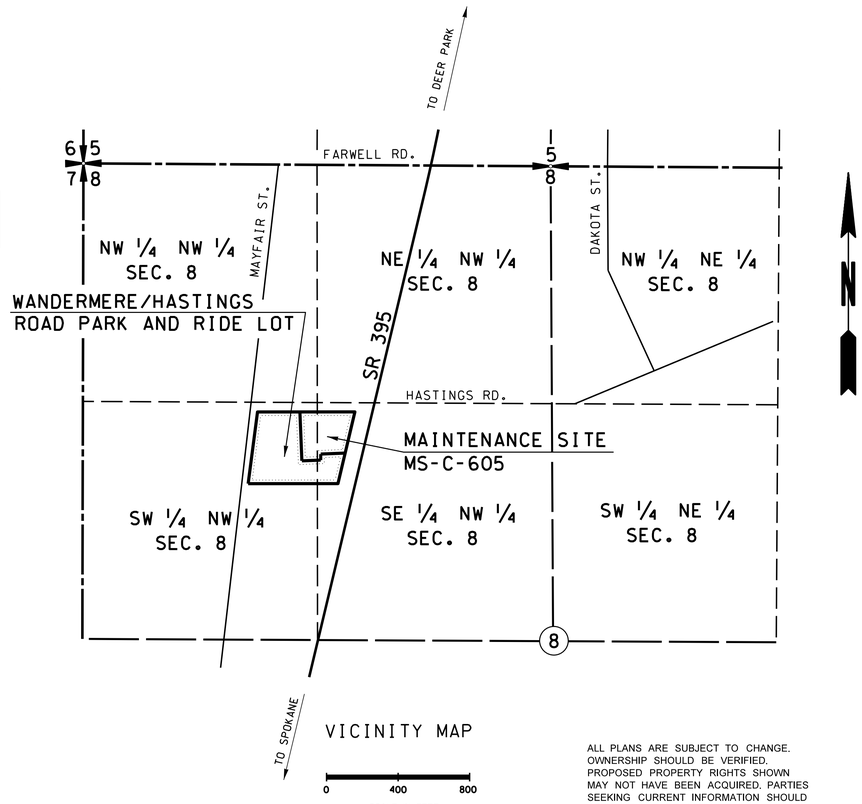
PROJECT ENGINEER

RIGHT OF WAY PLANS ENGINEER

T.26N. R.43E. W.M.

FOR SR 395 R/W, SEE SR 395, HASTINGS ROAD TO MP 172, SHEET 4 OF 15 SHEETS, APPROVED AUGUST 7, 1992.





VICINITY MAP

0 400 800
SCALE IN FEET

ALL PLANS ARE SUBJECT TO CHANGE. OWNERSHIP SHOULD BE VERIFIED. PROPOSED PROPERTY RIGHTS SHOWN MAY NOT HAVE BEEN ACQUIRED. PARTIES SEEKING CURRENT INFORMATION SHOULD CONSULT THE DEPARTMENT OF TRANSPORTATION HEADQUARTERS RIGHT OF WAY PLANS OFFICE FOR THE OFFICIAL PLAN ON FILE.

SEE 100.05(2)(i)

SPOKANE COUNTY SUNDRY SITE PLANS

MAINTENANCE SITE MS-C-605
WANDERMERE/HASTINGS ROAD PARK AND RIDE LOT

WASHINGTON STATE DEPARTMENT OF TRANSPORTATION
OLYMPIA, WASHINGTON

EXAMPLE 1-12

PARCEL NO.	NAME	TOTAL AREA	R/W	LT. REMAINDER RT.	EASM'T
6-04097	VANDER WAL	2.17 AC.	2.17 AC.		
6-03937	MATTSON	2.88 AC.	2.88 AC.		

OWNERSHIPS

LEGEND

ACCESS TO BE PROHIBITED SHOWN THUS

PROPERTY OWNERSHIP NUMBERS (-)

PROPERTY LINES

0 50 100
SCALE IN FEET

Whenever possible, leave this space empty for revision block.

Reference	Approval	Revision Description	By

APPROVED AND ADOPTED JULY 2, 2004

PROJECT ENGINEER

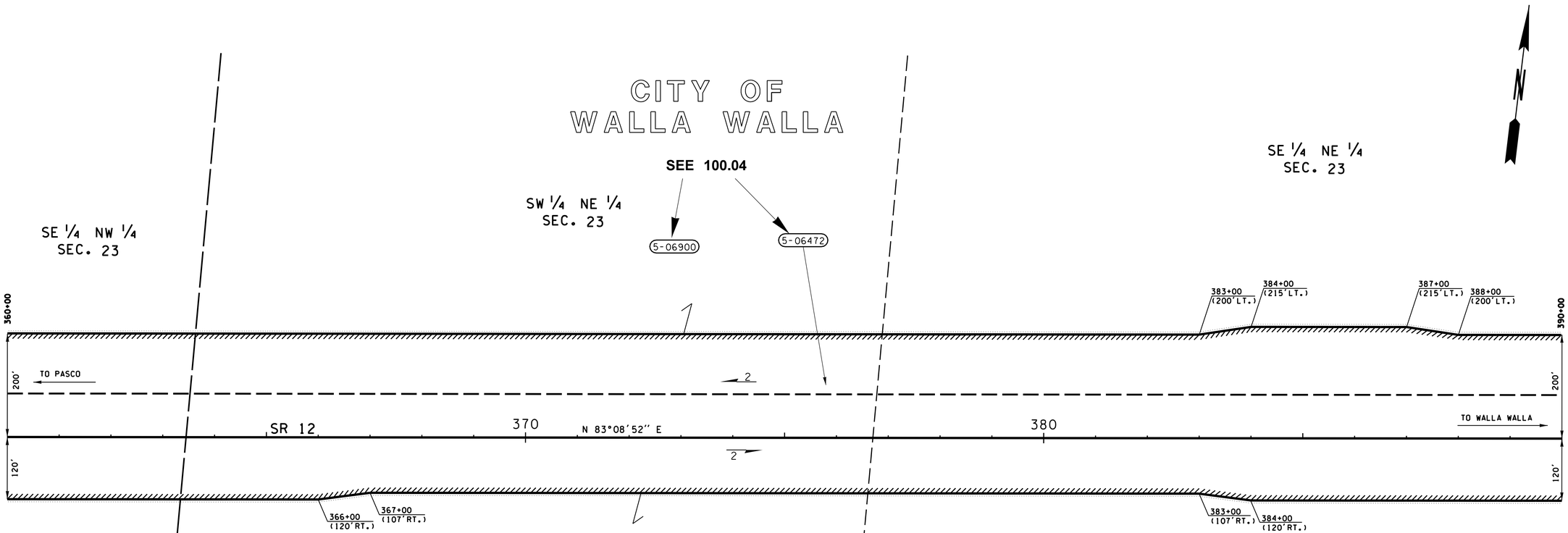
RIGHT OF WAY PLANS MANAGER

DATE

THE BASIS OF BEARINGS AND DISTANCES ARE DETERMINED FROM WASHINGTON STATE PLANE COORDINATE SYSTEM SOUTH ZONE (NAD 83/91).

THE DISTANCES SHOWN ARE GROUND DISTANCES.

T.7N. R.35E. W.M.



ALL PLANS ARE SUBJECT TO CHANGE. OWNERSHIP SHOULD BE VERIFIED. PROPOSED PROPERTY RIGHTS SHOWN MAY NOT HAVE BEEN ACQUIRED. PARTIES SEEKING CURRENT INFORMATION SHOULD CONSULT THE DEPARTMENT OF TRANSPORTATION HEADQUARTERS RIGHT OF WAY PLANS OFFICE FOR THE OFFICIAL PLAN ON FILE.

THIS PLAN SUPERSEDES SHEET 4 OF 22 SHEETS OF SR 12, IRELAND RD. VICINITY TO WALLA WALLA, APPROVED AND ADOPTED DECEMBER 6, 2005

PARCEL NO.	NAME	TOTAL AREA	R/W	LT. REMAINDER RT.	EASM'T
5-06900	SEE SHEET 1				
5-06472	SEE SHEET 11				

TOTAL AREA IS FROM ASSESSOR'S RECORDS UNLESS OTHERWISE NOTED.

OWNERSHIPS

ALL AREAS ARE SHOWN IN SQUARE FEET UNLESS OTHERWISE NOTED.

LEGEND

ACCESS TO BE PROHIBITED SHOWN THUS

PROPERTY OWNERSHIP NUMBERS -

PROPERTY LINES

0 100 200
SCALE IN FEET

EXAMPLE 1-13

Whenever possible, leave this space empty for revision block.

Reference	Approval	Revision Description	By	DATE

SR 12
IRELAND RD.
TO WALLA WALLA
WALLA WALLA COUNTY

RIGHT OF WAY AND LIMITED ACCESS PLAN
FULL CONTROL
MP 333.81 TO MP 334.38
STATION 360+00 TO STATION 390+00

WASHINGTON STATE DEPARTMENT OF TRANSPORTATION
OLYMPIA, WASHINGTON

KERRY I. GRANT — STATE OF WASHINGTON — 24056 — REGISTERED PROFESSIONAL ENGINEER

APPROVED AND ADOPTED _____

PROJECT ENGINEER

RIGHT OF WAY PLANS MANAGER

Designated For Limited Access Control By Findings and Order Adopted December 5, 2005

KerrT	8/30/2012	8:08:55 AM	Plot 3	C:\AAWork\Manuals\PPM\2012\Example_files\PPM_Div_1_Example_1-20.dgn

CURVE DATA

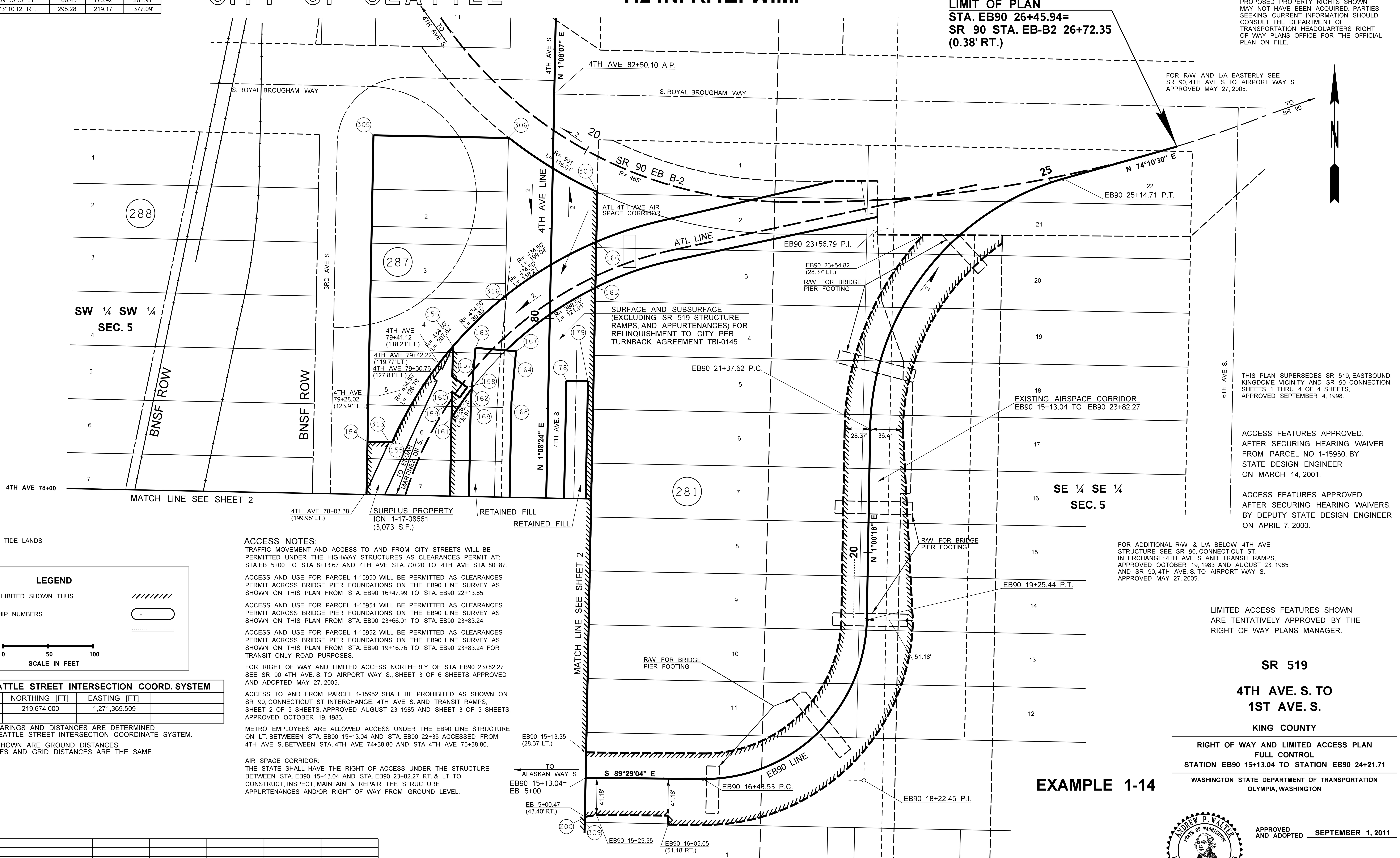
P.I. STATION	DELTA	RADIUS	TANGENT	LENGTH
EB90 18+22.45	89°30'38" LT.	180.45'	178.92'	281.91'
EB90 23+56.79	73°10'12" RT.	295.28'	219.17'	377.09'

CITY OF SEATTLE

T.24N. R.4E. W.M.

SEE 100.03(7) Last Bullet

ALL PLANS ARE SUBJECT TO CHANGE. OWNERSHIP SHOULD BE VERIFIED. PROPOSED PROPERTY RIGHTS SHOWN MAY NOT HAVE BEEN ACQUIRED. PARTIES SEEKING CURRENT INFORMATION SHOULD CONSULT THE DEPARTMENT OF TRANSPORTATION HEADQUARTERS RIGHT OF WAY PLANS OFFICE FOR THE OFFICIAL PLAN ON FILE.



LIMIT OF PLAN
STA. EB90 26+45.94=
SR 90 STA. EB-B2 26+72.35
(0.38' RT.)
FOR R/W AND L/A EASTERLY SEE SR 90, 4TH AVE. S. TO AIRPORT WAY S., APPROVED MAY 27, 2005.
TO SR 90
4TH AVE 82+50.10 A.P.
S. ROYAL BROUGHAM WAY
N 1°08'07" E
SR 90 EB B-2
N 74°10'30" E
EB90 25+14.71 P.T.
ATL 4TH AVE AIR SPACE CORRIDOR
ATL LINE
4TH AVE LINE
EB90 23+56.79 P.I.
EB90 23+54.82 (28.37' LT.)
R/W FOR BRIDGE PIER FOOTING
SW ¼ SW ¼ SEC. 5
BNSF ROW
3RD AVE. S.
SURFACE AND SUBSURFACE (EXCLUDING SR 519 STRUCTURE, RAMPS, AND APPURTENANCES) FOR RELINQUISHMENT TO CITY PER TURNBACK AGREEMENT TBI-0145
4TH AVE 79+41.12 (118.21' LT.)
4TH AVE 79+42.22 (119.77' LT.)
4TH AVE 79+30.76 (127.81' LT.)
4TH AVE 79+28.02 (123.91' LT.)
EB90 21+37.62 P.C.
EXISTING AIRSPACE CORRIDOR
EB90 15+13.04 TO EB90 23+82.27
N 1°08'24" E
4TH AVE. S.
6TH AVE. S.
4TH AVE 78+00
MATCH LINE SEE SHEET 2
4TH AVE 78+03.38 (199.95' LT.)
SURPLUS PROPERTY
ICN 1-17-08661
(3,073 S.F.)
RETAINED FILL
SE ¼ SE ¼ SEC. 5
N 1°00'18" E
R/W FOR BRIDGE PIER FOOTING
EB90 19+25.44 P.T.
51.18'
R/W FOR BRIDGE PIER FOOTING
EB90 15+13.35 (28.37' LT.)
TO ALASKAN WAY S.
EB90 15+13.04=
EB 5+00
S 89°29'04" E
EB90 LINE
EB90 16+43.53 P.C.
EB90 18+22.45 P.I.
EB 5+00.47 (43.40' RT.)
EB90 15+25.55
EB90 16+05.05 (51.18' RT.)
41.18'

THIS PLAN SUPERSEDES SR 519, EASTBOUND: KINGDOME VICINITY AND SR 90 CONNECTION, SHEETS 1 THRU 4 OF 4 SHEETS, APPROVED SEPTEMBER 4, 1998.

ACCESS FEATURES APPROVED, AFTER SECURING HEARING WAIVER FROM PARCEL NO. 1-15950, BY STATE DESIGN ENGINEER ON MARCH 14, 2001.

ACCESS FEATURES APPROVED, AFTER SECURING HEARING WAIVERS, BY DEPUTY STATE DESIGN ENGINEER ON APRIL 7, 2000.

FOR ADDITIONAL R/W & L/A BELOW 4TH AVE STRUCTURE SEE SR 90, CONNECTICUT ST. INTERCHANGE: 4TH AVE. S AND TRANSIT RAMPS, APPROVED OCTOBER 19, 1983 AND AUGUST 23, 1985, AND SR 90, 4TH AVE. S. TO AIRPORT WAY S., APPROVED MAY 27, 2005.

LIMITED ACCESS FEATURES SHOWN ARE TENTATIVELY APPROVED BY THE RIGHT OF WAY PLANS MANAGER.

SEATTLE TIDE LANDS

LEGEND

- ACCESS TO BE PROHIBITED SHOWN THUS
- PROPERTY OWNERSHIP NUMBERS
- PROPERTY LINES

SCALE IN FEET: 0 50 100

ACCESS NOTES:

TRAFFIC MOVEMENT AND ACCESS TO AND FROM CITY STREETS WILL BE PERMITTED UNDER THE HIGHWAY STRUCTURES AS CLEARANCES PERMIT AT: STA.EB 5+00 TO STA. 8+13.67 AND 4TH AVE STA. 70+20 TO 4TH AVE STA. 80+87.

ACCESS AND USE FOR PARCEL 1-15950 WILL BE PERMITTED AS CLEARANCES PERMIT ACROSS BRIDGE PIER FOUNDATIONS ON THE EB90 LINE SURVEY AS SHOWN ON THIS PLAN FROM STA. EB90 16+47.99 TO STA. EB90 22+13.85.

ACCESS AND USE FOR PARCEL 1-15951 WILL BE PERMITTED AS CLEARANCES PERMIT ACROSS BRIDGE PIER FOUNDATIONS ON THE EB90 LINE SURVEY AS SHOWN ON THIS PLAN FROM STA. EB90 23+66.01 TO STA. EB90 23+83.24.

ACCESS AND USE FOR PARCEL 1-15952 WILL BE PERMITTED AS CLEARANCES PERMIT ACROSS BRIDGE PIER FOUNDATIONS ON THE EB90 LINE SURVEY AS SHOWN ON THIS PLAN FROM STA. EB90 19+16.76 TO STA. EB90 23+83.24 FOR TRANSIT ONLY ROAD PURPOSES.

FOR RIGHT OF WAY AND LIMITED ACCESS NORTHERLY OF STA. EB90 23+82.27 SEE SR 90 4TH AVE. S. TO AIRPORT WAY S., SHEET 3 OF 6 SHEETS, APPROVED AND ADOPTED MAY 27, 2005.

ACCESS TO AND FROM PARCEL 1-15952 SHALL BE PROHIBITED AS SHOWN ON SR 90, CONNECTICUT ST. INTERCHANGE: 4TH AVE. S. AND TRANSIT RAMPS, SHEET 2 OF 5 SHEETS, APPROVED AUGUST 23, 1985, AND SHEET 3 OF 5 SHEETS, APPROVED OCTOBER 19, 1983.

METRO EMPLOYEES ARE ALLOWED ACCESS UNDER THE EB90 LINE STRUCTURE ON LT. BETWEEEN STA. EB90 15+13.04 AND STA. EB90 22+35 ACCESSED FROM 4TH AVE S. BETWEEN STA. 4TH AVE 74+38.80 AND STA. 4TH AVE 75+38.80.

AIR SPACE CORRIDOR:
THE STATE SHALL HAVE THE RIGHT OF ACCESS UNDER THE STRUCTURE BETWEEN STA. EB90 15+13.04 AND STA. EB90 23+82.27, RT. & LT. TO CONSTRUCT, INSPECT, MAINTAIN & REPAIR THE STRUCTURE APPURTENANCES AND/OR RIGHT OF WAY FROM GROUND LEVEL.

CITY OF SEATTLE STREET INTERSECTION COORD. SYSTEM

INTERSECTION	NORTHING [FT]	EASTING [FT]
4th Ave 82+50	219,674.000	1,271,369.509

THE BASIS OF BEARINGS AND DISTANCES ARE DETERMINED FROM CITY OF SEATTLE STREET INTERSECTION COORDINATE SYSTEM.
THE DISTANCES SHOWN ARE GROUND DISTANCES.
GROUND DISTANCES AND GRID DISTANCES ARE THE SAME.

OWNERSHIPS

PARCEL NO.	NAME	TOTAL AREA	R/W	LT. REMAINDER RT.	EASM'T

TOTAL AREA IS FROM ASSESSOR'S RECORDS UNLESS OTHERWISE NOTED.
ALL AREAS ARE SHOWN IN SQUARE FEET UNLESS OTHERWISE NOTED.

Reference	Approval	Revision Description	By

EXAMPLE 1-14

SR 519

4TH AVE. S. TO 1ST AVE. S.

KING COUNTY

RIGHT OF WAY AND LIMITED ACCESS PLAN
FULL CONTROL
STATION EB90 15+13.04 TO STATION EB90 24+21.71

WASHINGTON STATE DEPARTMENT OF TRANSPORTATION
OLYMPIA, WASHINGTON

ANDREW P. WALTER, STATE OF WASHINGTON, 42842, REGISTERED PROFESSIONAL ENGINEER

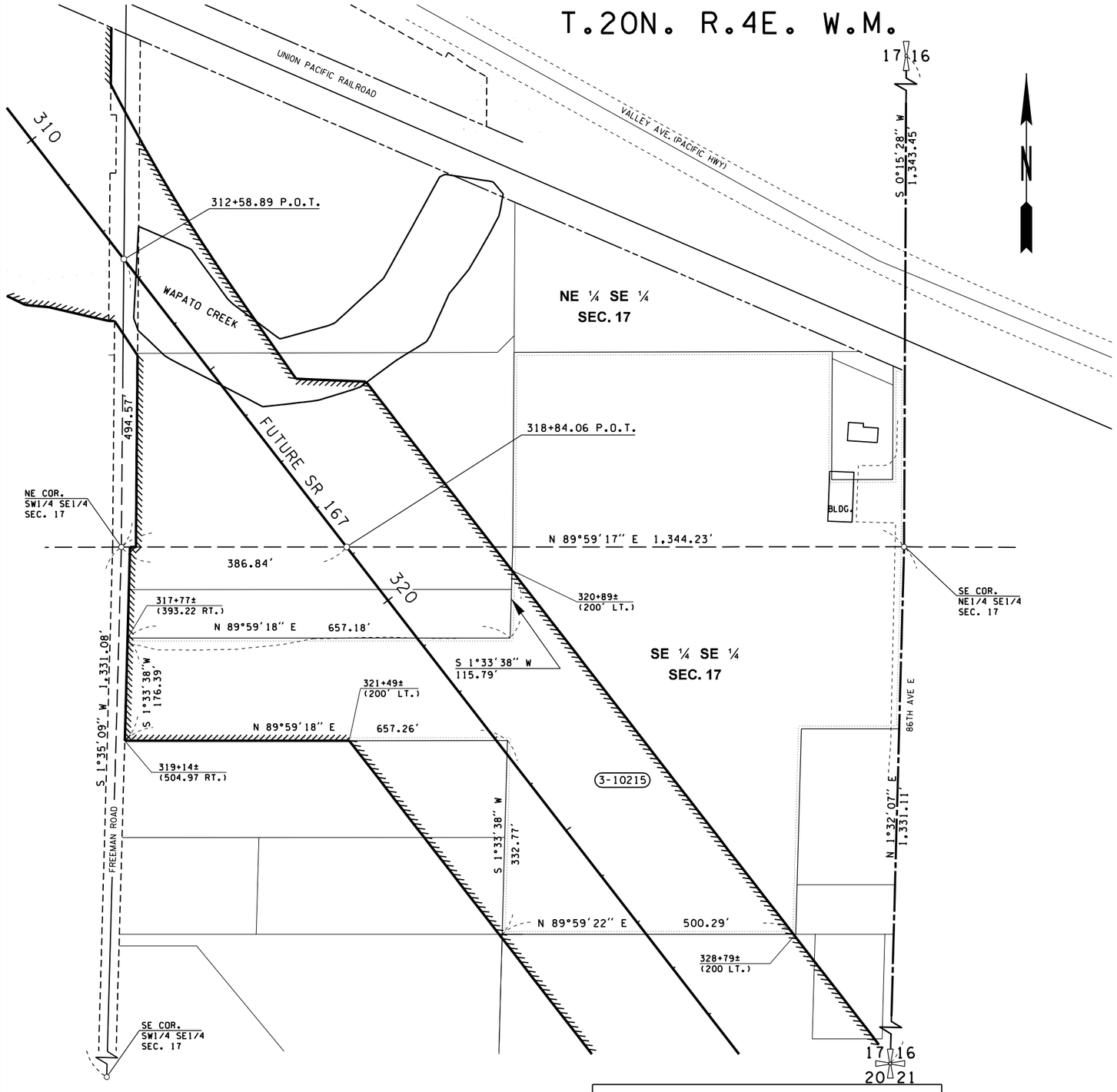
APPROVED AND ADOPTED SEPTEMBER 1, 2011

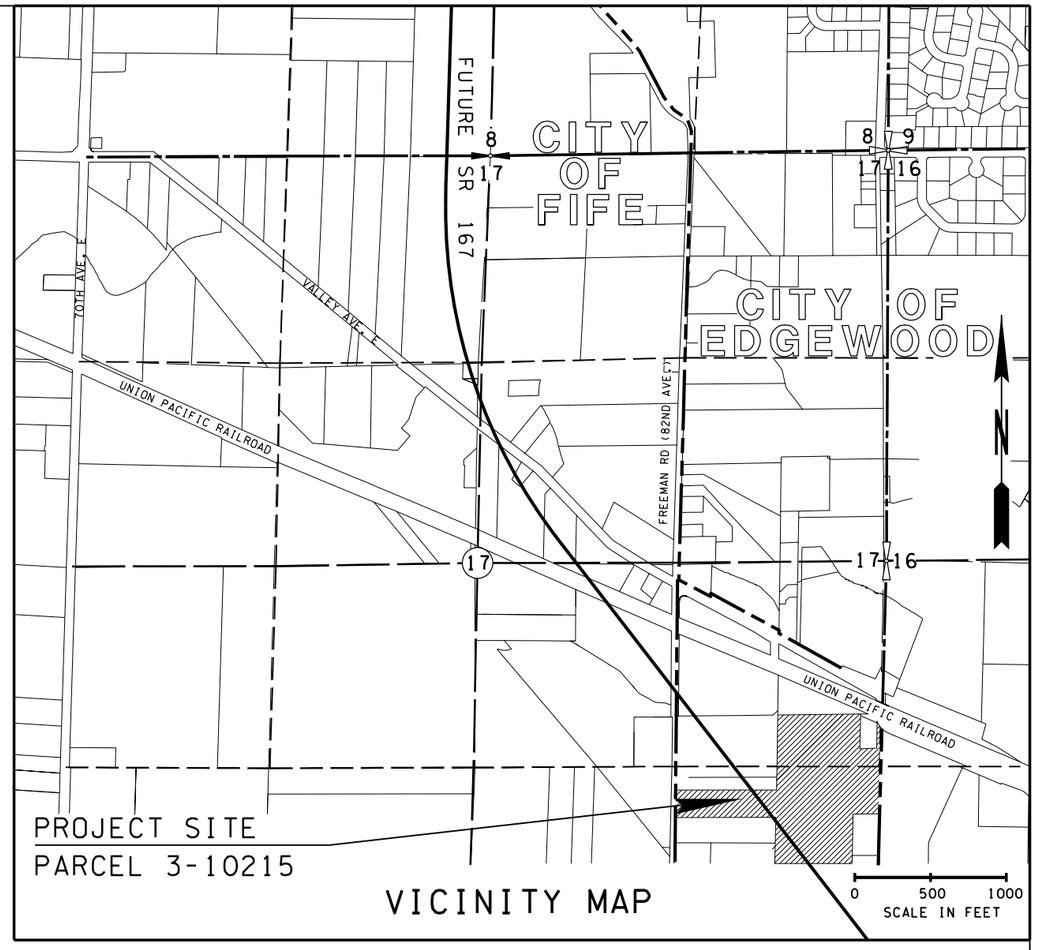
RIGHT OF WAY PLANS MANAGER

PROJECT ENGINEER

SHEET 3 OF 6 SHEETS

T.20N. R.4E. W.M.





PROPERTY BOUNDARIES CALCULATED FROM FIELD SURVEYS PERFORMED BY DAVID EVANS AND ASSOCIATES, INC. PARCEL 3-10215 WAS CALCULATED USING THE TITLE REPORT PREPARED BY TICOR TITLE COMPANY OF WASHINGTON, FILE NUMBER 3095489-2, EFFECTIVE DATE SEPTEMBER 14, 2006.

ALL PLANS ARE SUBJECT TO CHANGE. OWNERSHIP SHOULD BE VERIFIED. PROPOSED PROPERTY RIGHTS SHOWN MAY NOT HAVE BEEN ACQUIRED. PARTIES SEEKING CURRENT INFORMATION SHOULD CONSULT THE DEPARTMENT OF TRANSPORTATION HEADQUARTERS RIGHT OF WAY PLANS OFFICE FOR THE OFFICIAL PLAN ON FILE.

SEE 100.06

PARCEL NO.	NAME	TOTAL AREA	R/W	LT. REMAINDER RT.	EASM'T
3-10215	DURIS, ET AL.	704,382	272,165	432,217	

TOTAL AREA IS CALCULATED.

OWNERSHIPS

ALL AREAS ARE SHOWN IN SQUARE FEET UNLESS OTHERWISE NOTED.

LEGEND

PROPERTY OWNERSHIP NUMBERS -

PROPERTY LINES

0 100 200
SCALE IN FEET

Reference	Approval	Revision Description	By

Whenever possible, leave this space empty for revision block.

EXAMPLE 1-15

SR 167

PARCEL ACQUISITION PLAN

PIERCE COUNTY

PARCEL 3-10215

WASHINGTON STATE DEPARTMENT OF TRANSPORTATION
OLYMPIA, WASHINGTON

STEVEN D. FUCHS — STATE OF WASHINGTON — 53188 — REGISTERED PROFESSIONAL ENGINEER

APPROVED AND ADOPTED _____

PROJECT ENGINEER

RIGHT OF WAY PLANS MANAGER

T.24N. R.4E. W.M.

CITY OF SEATTLE

LEGEND

ACCESS TO BE PROHIBITED SHOWN THUS

PROPERTY OWNERSHIP NUMBERS

PROPERTY LINES

0 50 100
SCALE IN FEET

SEATTLE TIDE LANDS

CITY OF SEATTLE STREET INTERSECTION COORD. SYSTEM			
INTERSECTION	NORTHING [FT]	EASTING [FT]	
4th Ave 74+89.97	218,914.117	1,271,354.388	
EB 15+93.32 A.P.	218,934.997	1,270,315.003	

THE BASIS OF BEARINGS AND DISTANCES ARE DETERMINED FROM CITY OF SEATTLE STREET INTERSECTION COORDINATE SYSTEM.

THE DISTANCES SHOWN ARE GROUND DISTANCES. GROUND DISTANCES AND GRID DISTANCES ARE THE SAME.

THIS PLAN SUPERSEDES SR 519, EASTBOUND: KINGDOME VICINITY AND SR 90 CONNECTION, SHEETS 1 THRU 4 OF 4 SHEETS, APPROVED SEPTEMBER 4, 1998.

ALL PLANS ARE SUBJECT TO CHANGE. OWNERSHIP SHOULD BE VERIFIED. PROPOSED PROPERTY RIGHTS SHOWN MAY NOT HAVE BEEN ACQUIRED. PARTIES SEEKING CURRENT INFORMATION SHOULD CONSULT THE DEPARTMENT OF TRANSPORTATION HEADQUARTERS RIGHT OF WAY PLANS OFFICE FOR THE OFFICIAL PLAN ON FILE.

SE ¼ SE ¼
SEC. 6

SW ¼ SW ¼
SEC. 5

NE ¼ NE ¼
SEC. 7

NW ¼ NW ¼
SEC. 8

OCCIDENTAL AVE S. (VACATED)

1ST AVE S.

EDGAR MARTINEZ DR.
N 88°54'54" W

15+93.32 A.P.

CITY MONUMENT IN CASE
EB 15+93.32 A.P.

END OF PLAN
STA. EB 17+73.52 P.O.T.
MP 0.24

EXISTING PEDESTRIAN BRIDGE EASEMENT TOGETHER WITH PIER SUPPORT AND PIER SUPPORT FOUNDATION

EXISTING AIR SPACE CORRIDOR

EXISTING ACCESS EASEMENT

N 88°51'14" W
SR 519
EB LINE

EXISTING PEDESTRIAN BRIDGE EASEMENT

EXISTING PEDESTRIAN BRIDGE PIER SUPPORT FOUNDATION EASEMENT

EXISTING PEDESTRIAN BRIDGE PIER SUPPORT EASEMENT

MODIFIED CONTROL

FULL CONTROL

EB 13+32 LT.

MATCH LINE SEE SHEET 4

BNSF ROW

3RD AVE S.

EXISTING ROOF EASEMENT

EXISTING BRIDGE PIER EASEMENT

ATL 3RD AVE AIR SPACE CORRIDOR

TURNBACK LINE

EB 9+41.04 (36.09' RT.)

EB 9+31.04 (36.09' RT.)

EB 9+41.04 (43.40' LT.)

EB 9+31.04 (43.40' LT.)

EXISTING BRIDGE PIER EASEMENT

EB AIR SPACE CORRIDOR

EXISTING CROSSING AND MAINTENANCE EASEMENT

SEE DETAIL "A" THIS SHEET

4TH AVE 77+80.06 (119.95' LT.)

MATCH LINE SEE SHEET 3

4TH AVE 77+53.26 (199.95' LT.)

EXISTING W.S.M.L.B.S.P.F.D. ROOF EASEMENT

SURPLUS PROPERTY SEE SHEET 3

RETAINED FILL

4TH AVE 78+00

ATL LINE

4TH AVE LINE N 1°08'24" E

S-E & E-N RAMP AIR SPACE CORRIDOR

MATCH LINE SEE SHEET 3

BRIDGE PIER FOUNDATION

STAIRS

EB LINE

EDGAR MARTINEZ DR. N 89° 29' 04" W

4TH AVE 74+89.97 A.P.
N 218914.117
E 1271354.388

TURNBACK LINE

BEGINNING OF PLAN
STA. EB 5+00 P.O.T. AHD.=
STA. EB90 15+13.04 P.O.T. BK.
MP 0.00

FOR ADDITIONAL R/W & L/A BELOW 4TH AVE STRUCTURE SEE SR 90, CONNECTICUT ST. INTERCHANGE: 4TH AVE. S AND TRANSIT RAMPS, APPROVED OCTOBER 19, 1983 AND AUGUST 23, 1985, AND SR 90, 4TH AVE. S. TO AIRPORT WAY S., APPROVED MAY 27, 2005.

GRADE SEPARATED INTERSECTION
EB 5+50 = 4TH AVE 74+86.80

N-E AIR SPACE CORRIDOR

SURFACE AND SUBSURFACE (EXCLUDING SR 519 STRUCTURE, RAMPS, AND APPURTENANCES) FOR RELINQUISHMENT TO CITY PER TURNBACK AGREEMENT TBI-0145

E-S AIR SPACE CORRIDOR

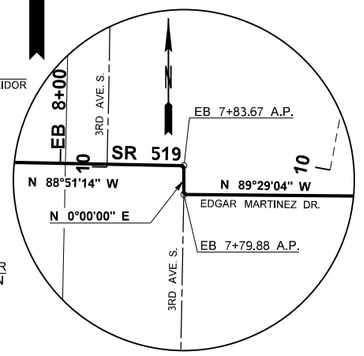
RETAINED FILL

4TH AVE 71+38 L/A

RETAINED FILL

MATCH LINE SEE SHEET 4

4TH AVE 70+00



DETAIL "A"
0 10 20
SCALE IN FEET

ACCESS NOTES:

TRAFFIC MOVEMENT AND ACCESS TO AND FROM CITY STREETS WILL BE PERMITTED UNDER THE HIGHWAY STRUCTURES AS CLEARANCES PERMIT AT: STA. EB 5+00 TO STA. EB 8+13.67 AND 4TH AVE STA. 70+20 TO 4TH AVE STA. 80+87

TRAFFIC MOVEMENT WILL BE PERMITTED OVER THE HIGHWAY STRUCTURE AT: PEDESTRIAN UNDERCROSSING - STA. EB 15+11

TYPE D-✱ APPROACH IS AN OFF AND ON APPROACH IN A LEGAL MANNER NOT TO EXCEED 32 FEET IN WIDTH FOR USE NECESSARY TO THE NORMAL OPERATION OF A COMMERCIAL ESTABLISHMENT. IT MAY BE SPECIFIED AT A POINT SATISFACTORY TO THE STATE AT OR BETWEEN DESIGNATED HIGHWAY STATIONS.

NOTE: SEE SHEETS 5 & 6 FOR ACQUISITION TABLES AND POINT CHARTS

ACCESS FEATURES APPROVED, AFTER SECURING HEARING WAIVERS, BY DEPUTY STATE DESIGN ENGINEER ON APRIL 7, 2000.

LIMITED ACCESS FEATURES SHOWN ARE TENTATIVELY APPROVED BY THE RIGHT OF WAY PLANS MANAGER.

SR 519

4TH AVE. S. TO 1ST AVE. S.

KING COUNTY

RIGHT OF WAY AND LIMITED ACCESS PLAN
FULL AND MODIFIED CONTROL
MP 0.00 TO MP 0.24
STATION EB 5+00 TO STATION EB 17+17+52

WASHINGTON STATE DEPARTMENT OF TRANSPORTATION
OLYMPIA, WASHINGTON

ANDREW P. WALTER — STATE OF WASHINGTON — 22840 — REGISTERED PROFESSIONAL ENGINEER

APPROVED AND ADOPTED SEPTEMBER 1, 2011

RIGHT OF WAY PLANS MANAGER

PROJECT ENGINEER

SHEET 2 OF 6 SHEETS

EXAMPLE 1-16a

SEE 100.03(3)(f)

PARCEL NO.	NAME	TOTAL AREA	R/W	LT. REMAINDER RT.	EASM'T	CENTERLINE OF APPROACH STATION	TYPE
						EB 13+53 LT., EB 14+03 LT., EB 14+53 LT.	D-✱, D-✱, D-✱
						EB 13+53 LT.	D-✱

TOTAL AREA IS FROM ASSESSOR'S RECORDS UNLESS OTHERWISE NOTED.

OWNERSHIPS

ALL AREAS ARE SHOWN IN SQUARE FEET UNLESS OTHERWISE NOTED.

ACCESS APPROACH SCHEDULE

Reference	Approval	Revision Description	By

westbys	5/17/2012	4:37:27 PM	Plot 3	C:\AAWork\PPM_EX.dgn

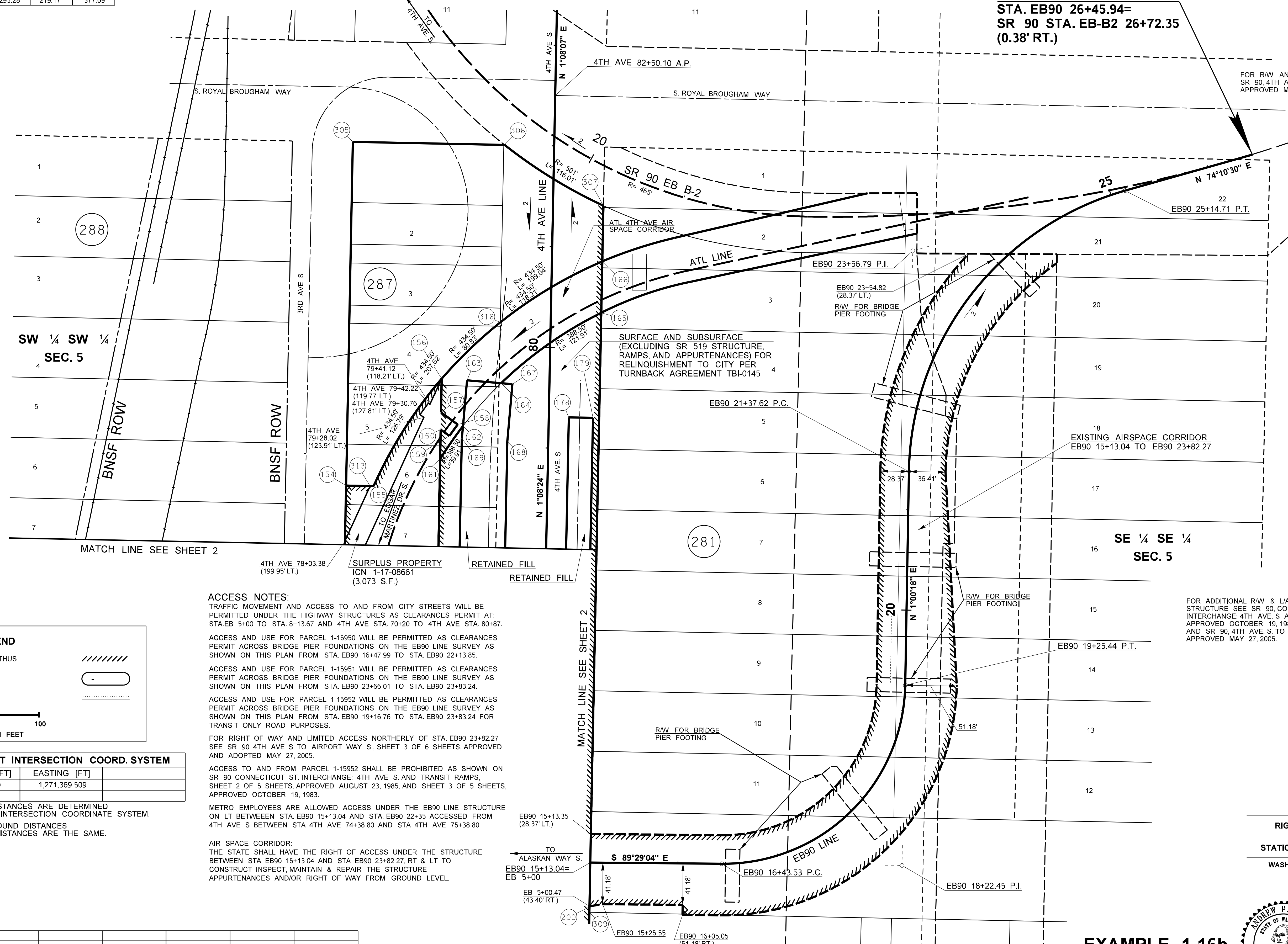
CURVE DATA

P.I. STATION	DELTA	RADIUS	TANGENT	LENGTH
EB90 18+22.45	89°30'38" LT.	180.45'	178.92'	281.91'
EB90 23+56.79	73°10'12" RT.	295.28'	219.17'	377.09'

CITY OF SEATTLE

T.24N. R.4E. W.M.

ALL PLANS ARE SUBJECT TO CHANGE. OWNERSHIP SHOULD BE VERIFIED. PROPOSED PROPERTY RIGHTS SHOWN MAY NOT HAVE BEEN ACQUIRED. PARTIES SEEKING CURRENT INFORMATION SHOULD CONSULT THE DEPARTMENT OF TRANSPORTATION HEADQUARTERS RIGHT OF WAY PLANS OFFICE FOR THE OFFICIAL PLAN ON FILE.



LIMIT OF PLAN
STA. EB90 26+45.94=
SR 90 STA. EB-B2 26+72.35
(0.38' RT.)
FOR R/W AND L/A EASTERLY SEE SR 90, 4TH AVE. S. TO AIRPORT WAY S., APPROVED MAY 27, 2005.
TO SR 90
N 74°10'30" E
EB90 25+14.71 P.T.
4TH AVE 82+50.10 A.P.
S. ROYAL BROUGHAM WAY
SR 90 EB B-2
ATL 4TH AVE AIR SPACE CORRIDOR
ATL LINE
EB90 23+56.79 P.I.
EB90 23+54.82 (28.37' LT.)
R/W FOR BRIDGE PIER FOOTING
SURFACE AND SUBSURFACE (EXCLUDING SR 519 STRUCTURE, RAMPS, AND APPURTENANCES) FOR RELINQUISHMENT TO CITY PER TURNBACK AGREEMENT TBI-0145
EB90 21+37.62 P.C.
EXISTING AIRSPACE CORRIDOR EB90 15+13.04 TO EB90 23+82.27
SW ¼ SW ¼ SEC. 5
SE ¼ SE ¼ SEC. 5
BNSF ROW
3RD AVE. S.
4TH AVE LINE
4TH AVE. S.
6TH AVE. S.
N 1°08'07" E
N 1°08'24" E
N 1°00'18" E
4TH AVE 78+00
MATCH LINE SEE SHEET 2
4TH AVE 78+03.38 (199.95' LT.)
SURPLUS PROPERTY ICN 1-17-08661 (3,073 S.F.)
RETAINED FILL
EB90 19+25.44 P.T.
EB90 LINE
S 89°29'04" E
TO ALASKAN WAY S.
EB90 15+13.04= EB 5+00
EB 5+00.47 (43.40' RT.)
EB90 15+13.35 (28.37' LT.)
EB90 15+25.55
EB90 16+05.05 (51.18' RT.)
EB90 16+43.53 P.C.
EB90 18+22.45 P.I.

THIS PLAN SUPERSEDES SR 519, EASTBOUND: KINGDOME VICINITY AND SR 90 CONNECTION, SHEETS 1 THRU 4 OF 4 SHEETS, APPROVED SEPTEMBER 4, 1998.

ACCESS FEATURES APPROVED, AFTER SECURING HEARING WAIVER FROM PARCEL NO. 1-15950, BY STATE DESIGN ENGINEER ON MARCH 14, 2001.

ACCESS FEATURES APPROVED, AFTER SECURING HEARING WAIVERS, BY DEPUTY STATE DESIGN ENGINEER ON APRIL 7, 2000.

FOR ADDITIONAL R/W & L/A BELOW 4TH AVE STRUCTURE SEE SR 90, CONNECTICUT ST. INTERCHANGE: 4TH AVE. S AND TRANSIT RAMPS, APPROVED OCTOBER 19, 1983 AND AUGUST 23, 1985, AND SR 90, 4TH AVE. S. TO AIRPORT WAY S., APPROVED MAY 27, 2005.

LIMITED ACCESS FEATURES SHOWN ARE TENTATIVELY APPROVED BY THE RIGHT OF WAY PLANS MANAGER.

SEATTLE TIDE LANDS

LEGEND

- ACCESS TO BE PROHIBITED SHOWN THUS
- PROPERTY OWNERSHIP NUMBERS
- PROPERTY LINES

0 50 100 SCALE IN FEET

CITY OF SEATTLE STREET INTERSECTION COORD. SYSTEM

INTERSECTION	NORTHING [FT]	EASTING [FT]
4th Ave 82+50	219,674.000	1,271,369.509

THE BASIS OF BEARINGS AND DISTANCES ARE DETERMINED FROM CITY OF SEATTLE STREET INTERSECTION COORDINATE SYSTEM.

THE DISTANCES SHOWN ARE GROUND DISTANCES. GROUND DISTANCES AND GRID DISTANCES ARE THE SAME.

ACCESS NOTES:

TRAFFIC MOVEMENT AND ACCESS TO AND FROM CITY STREETS WILL BE PERMITTED UNDER THE HIGHWAY STRUCTURES AS CLEARANCES PERMIT AT: STA.EB 5+00 TO STA. 8+13.67 AND 4TH AVE STA. 70+20 TO 4TH AVE STA. 80+87.

ACCESS AND USE FOR PARCEL 1-15950 WILL BE PERMITTED AS CLEARANCES PERMIT ACROSS BRIDGE PIER FOUNDATIONS ON THE EB90 LINE SURVEY AS SHOWN ON THIS PLAN FROM STA. EB90 16+47.99 TO STA. EB90 22+13.85.

ACCESS AND USE FOR PARCEL 1-15951 WILL BE PERMITTED AS CLEARANCES PERMIT ACROSS BRIDGE PIER FOUNDATIONS ON THE EB90 LINE SURVEY AS SHOWN ON THIS PLAN FROM STA. EB90 23+66.01 TO STA. EB90 23+83.24.

ACCESS AND USE FOR PARCEL 1-15952 WILL BE PERMITTED AS CLEARANCES PERMIT ACROSS BRIDGE PIER FOUNDATIONS ON THE EB90 LINE SURVEY AS SHOWN ON THIS PLAN FROM STA. EB90 19+16.76 TO STA. EB90 23+83.24 FOR TRANSIT ONLY ROAD PURPOSES.

FOR RIGHT OF WAY AND LIMITED ACCESS NORTHERLY OF STA. EB90 23+82.27 SEE SR 90 4TH AVE. S. TO AIRPORT WAY S., SHEET 3 OF 6 SHEETS, APPROVED AND ADOPTED MAY 27, 2005.

ACCESS TO AND FROM PARCEL 1-15952 SHALL BE PROHIBITED AS SHOWN ON SR 90, CONNECTICUT ST. INTERCHANGE: 4TH AVE S. AND TRANSIT RAMPS, SHEET 2 OF 5 SHEETS, APPROVED AUGUST 23, 1985, AND SHEET 3 OF 5 SHEETS, APPROVED OCTOBER 19, 1983.

METRO EMPLOYEES ARE ALLOWED ACCESS UNDER THE EB90 LINE STRUCTURE ON LT. BETWEEEN STA. EB90 15+13.04 AND STA. EB90 22+35 ACCESSED FROM 4TH AVE S. BETWEEN STA. 4TH AVE 74+38.80 AND STA. 4TH AVE 75+38.80.

AIR SPACE CORRIDOR:
THE STATE SHALL HAVE THE RIGHT OF ACCESS UNDER THE STRUCTURE BETWEEN STA. EB90 15+13.04 AND STA. EB90 23+82.27, RT. & LT. TO CONSTRUCT, INSPECT, MAINTAIN & REPAIR THE STRUCTURE APPURTENANCES AND/OR RIGHT OF WAY FROM GROUND LEVEL.

OWNERSHIPS

PARCEL NO.	NAME	TOTAL AREA	R/W	LT. REMAINDER RT.	EASM'T

TOTAL AREA IS FROM ASSESSOR'S RECORDS UNLESS OTHERWISE NOTED.

ALL AREAS ARE SHOWN IN SQUARE FEET UNLESS OTHERWISE NOTED.

SR 519

4TH AVE. S. TO 1ST AVE. S.

KING COUNTY

RIGHT OF WAY AND LIMITED ACCESS PLAN
FULL CONTROL
STATION EB90 15+13.04 TO STATION EB90 24+21.71

WASHINGTON STATE DEPARTMENT OF TRANSPORTATION
OLYMPIA, WASHINGTON

ANDREW P. WALTER — STATE OF WASHINGTON — 42842 — REGISTERED PROFESSIONAL ENGINEER

APPROVED AND ADOPTED SEPTEMBER 1, 2011

RIGHT OF WAY PLANS MANAGER

PROJECT ENGINEER

EXAMPLE 1-16b

SEE 100.03(3)(f)

Reference	Approval	Revision Description	By

LEGEND

ACCESS TO BE PROHIBITED SHOWN THUS

PROPERTY OWNERSHIP NUMBERS -

PROPERTY LINES

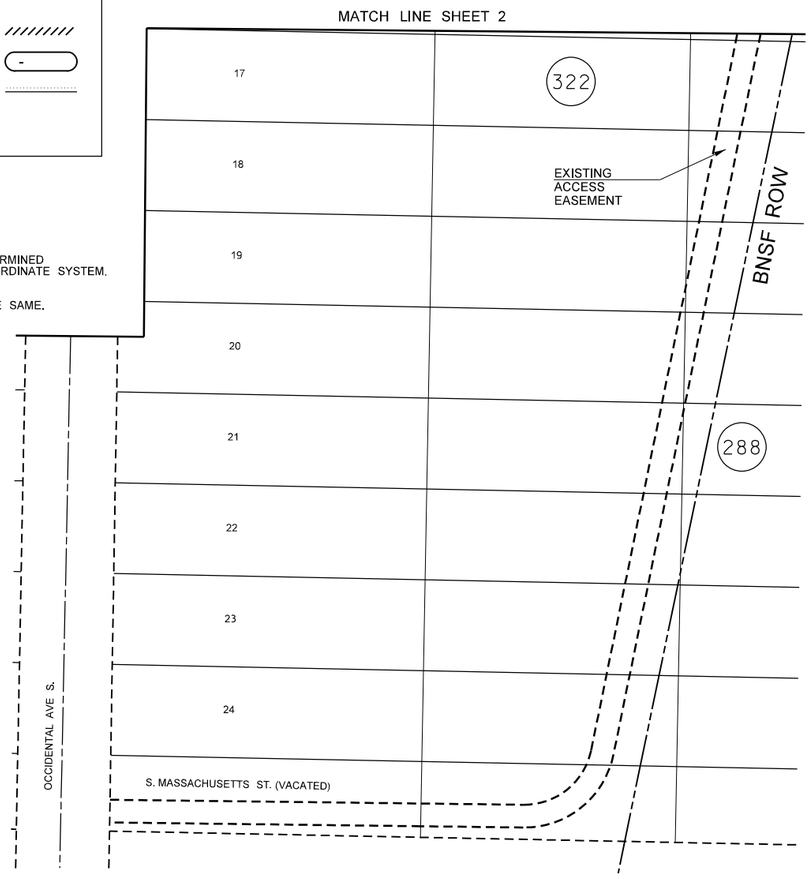
0 50 100

SCALE IN FEET

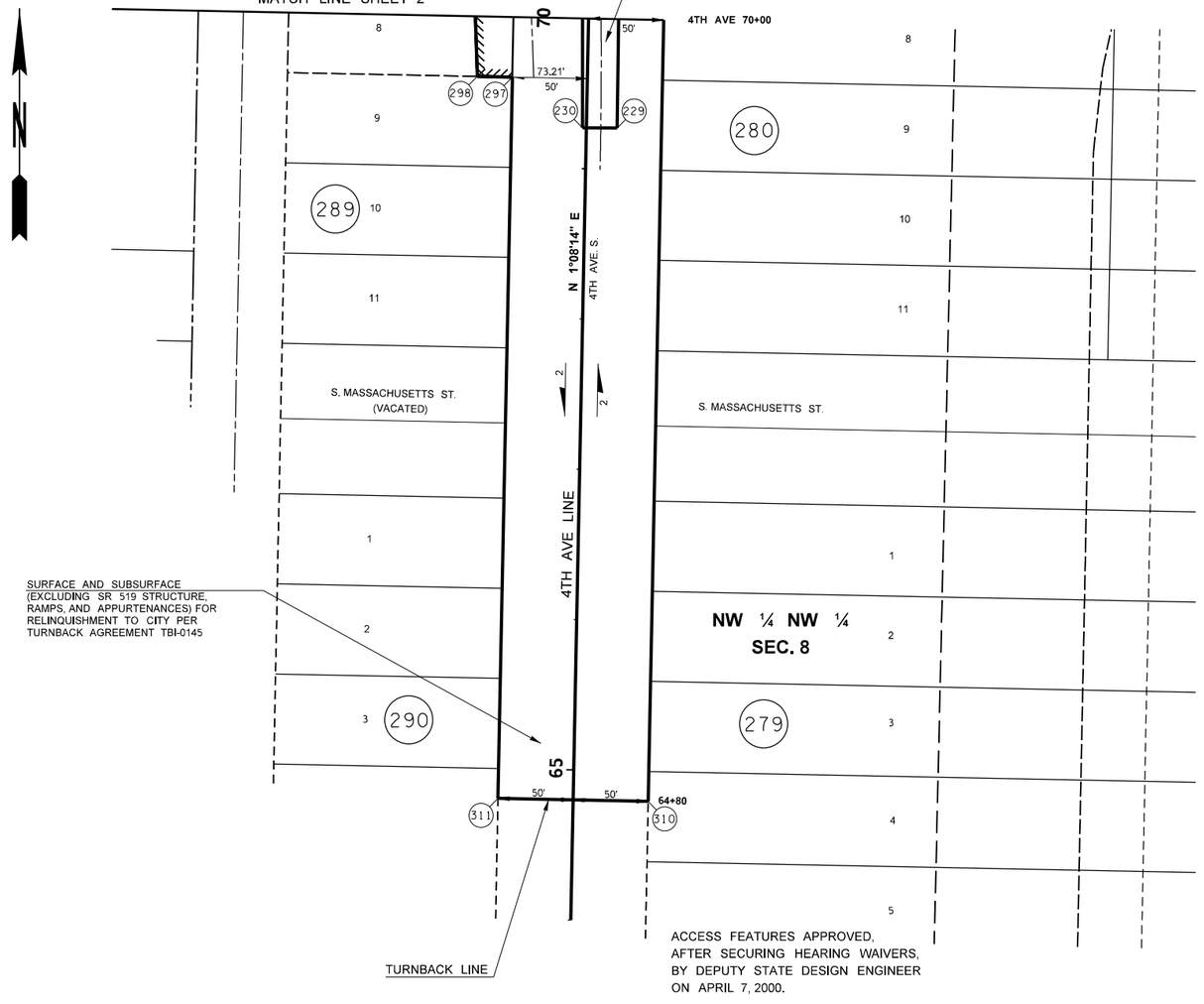
SEATTLE TIDE LANDS

THE BASIS OF BEARINGS AND DISTANCES ARE DETERMINED FROM CITY OF SEATTLE STREET INTERSECTION COORDINATE SYSTEM.

THE DISTANCES SHOWN ARE GROUND DISTANCES. GROUND DISTANCES AND GRID DISTANCES ARE THE SAME.



CITY OF SEATTLE



ALL PLANS ARE SUBJECT TO CHANGE. OWNERSHIP SHOULD BE VERIFIED. PROPOSED PROPERTY RIGHTS SHOWN MAY NOT HAVE BEEN ACQUIRED. PARTIES SEEKING CURRENT INFORMATION SHOULD CONSULT THE DEPARTMENT OF TRANSPORTATION HEADQUARTERS RIGHT OF WAY PLANS OFFICE FOR THE OFFICIAL PLAN ON FILE.

ACCESS FEATURES APPROVED, AFTER SECURING HEARING WAIVERS, BY DEPUTY STATE DESIGN ENGINEER ON APRIL 7, 2000.

THIS PLAN SUPERSEDES SR 519, EASTBOUND: KINGDOME VICINITY AND SR 90 CONNECTION, SHEETS 1 THRU 4 OF 4 SHEETS, APPROVED SEPTEMBER 4, 1998.

EXAMPLE 1-16c

SEE 100.03(3)(f)

SR 519

4TH AVE. S. TO 1ST AVE. S.

KING COUNTY

RIGHT OF WAY PLAN
STATION 4TH AVE 64+80 TO STATION 4TH AVE 70+00

WASHINGTON STATE DEPARTMENT OF TRANSPORTATION
OLYMPIA, WASHINGTON

ANDREW P. WALTER — STATE OF WASHINGTON — 42842 — REGISTERED PROFESSIONAL ENGINEER

APPROVED AND ADOPTED **SEPTEMBER 1, 2011**

RIGHT OF WAY PLANS MANAGER

PROJECT ENGINEER

PARCEL NO.	NAME	TOTAL AREA	R/W	LT. REMAINDER RT.	EASM'T

TOTAL AREA IS FROM ASSESSOR'S RECORDS UNLESS OTHERWISE NOTED.

OWNERSHIPS

ALL AREAS ARE SHOWN IN SQUARE FEET UNLESS OTHERWISE NOTED.

Whenever possible, leave this space empty for revision block.

Reference	Approval	Revision Description	By

LEGEND

ACCESS TO BE PROHIBITED SHOWN THUS ////////

PROPERTY OWNERSHIP NUMBERS (-)

PROPERTY LINES .....

0 50 100

SCALE IN FEET

SEATTLE TIDE LANDS

ALL PLANS ARE SUBJECT TO CHANGE. OWNERSHIP SHOULD BE VERIFIED. PROPOSED PROPERTY RIGHTS SHOWN MAY NOT HAVE BEEN ACQUIRED. PARTIES SEEKING CURRENT INFORMATION SHOULD CONSULT THE DEPARTMENT OF TRANSPORTATION HEADQUARTERS RIGHT OF WAY PLANS OFFICE FOR THE OFFICIAL PLAN ON FILE.

T.24N. R.4E. W.M.

CITY OF SEATTLE

FEE SIMPLE -
FROM SHEET 2

PT	STATION	OFFSET
100	EB 8+13.66	50' RT.
101	-	-
102	-	-
103	EB 13+82.56	50' LT.
104	EB 15+31.07	66.24' LT.
105	EB 15+52.09	67.13' LT.
106	EB 15+63.60	78.12' LT.
107	-	-
108	-	-
109	-	-
110	-	-
111	-	-
112	-	-
113	-	-
114	-	-
115	EB 16+23.59	79.47' LT.
116	EB 16+31.91	72.89' LT.
117	EB 15+58.72	73.99' LT.
118	EB 17+52.88	74.07' LT.
119	EB 17+73.52	92.78' LT.
120	-	-
121	-	-
122	-	-
123	-	-
124	-	-
125	-	-
126	-	-
127	-	-
128	-	-
129	-	-
130	-	-
131	-	-
132	-	-
133	-	-
134	-	-

POINT CHART -
FROM SHEET 2, & 3

PT	STATION	OFFSET
1	EB 15+63.34	50' RT.
-	-	-
314	4TH AVE 74+41.80	50' LT.
315	4TH AVE 75+39.64	50' LT.
316	4TH AVE 80+23.89	50' LT.
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-	-	-
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-	-	-
-	-	-

1-15953--FEE SIMPLE
INCLUDES PEDESTRIAN BRIDGE EASEMENT 1,201 SF

PT	STATION	OFFSET	AREA (SF)
3	EB 15+63.27	0' LT.	10,268
4	EB 15+63.19L/A	50' LT.	
32	EB 13+57.84	50' LT.	
31	EB 13+57.92	0' LT.	

1-15953--NON-EXCLUSIVE PERMANENT ACCESS EASEMENT

PT	STATION	OFFSET	AREA (SF)
7	EB 15+61.34	739.31' LT.	3,079
8	EB 15+61.30	754.30' LT.	
36	EB 13+55.96	752.68' LT.	
35	EB 13+55.99	737.69' LT.	

1-15945--AIR RIGHTS IN FEE (AIR SPACE CORRIDOR)
INCLUDES ROOF EASEMENT 2,093 SF

PT	STATION	OFFSET	AREA (SF)
72	EB 13+31.51	34.51' RT.	22,120
69	EB 13+31.42	50' LT.	
65	EB 10+88.61L/A	50' LT.	
63	EB 10+69.95	50' RT.	
75	EB 11+31.35	50' RT.	
73	EB 11+31.04	34.53' RT.	

1-15945--NON-EXCLUSIVE PERMANENT ACCESS EASEMENT, EXCLUDES BRIDGE PIER EASEMENT #46,47,49,46 & #57,58,62,61 & #51,53,56,54

PT	STATION	OFFSET	AREA (SF)
72	EB 13+31.51	34.51' RT.	37,200
69	EB 13+31.42	50' LT.	
41	EB 13+30.47	50' LT.	
42	EB 13+30.47	75' LT.	
59	EB 11+29.79	75' LT.	
82	EB 12+44.42	700.25' LT.	
	R=45.00'	L=621.19'	
83	EB 12+88.33	737.15' LT.	
35	EB 13+55.99	737.69' LT.	
36	EB 13+55.96	752.68' LT.	
84	EB 12+88.22	752.15' LT.	
	R=60.00'	L=82.91'	
85	EB 12+29.67	702.96' LT.	
79	EB 11+14.54	75' LT.	
65	EB 10+88.61L/A	50' LT.	
63	EB 10+69.95	50' RT.	
75	EB 11+31.35	50' RT.	
73	EB 11+31.04	34.53' RT.	

1-15945--ROOF EASEMENT LYING BETWEEN ELEVATIONS 100.00' AND 185.00' BASED ON CITY OF SEATTLE VERTICAL DATUM (TO BE RESERVED BY 1-15945)

PT	STATION	OFFSET	AREA (SF)
75	EB 11+31.35	50' RT.	3,102
73	EB 11+31.04	34.53' RT.	
72	EB 13+31.51	34.51' RT.	
76	EB 15+63.33	34.25' RT.	
92	EB 15+63.33	30' RT.	
91	EB 10+73.68	30' RT.	
63	EB 10+69.95	50' RT.	

1-15946--ROOF EASEMENT LYING ABOVE A PLANE OF ELEVATION OF 100.00' BASED ON CITY OF SEATTLE VERTICAL DATUM (TO BE RESERVED BY W.S.M.L.B.S.P.F.D.)

PT	STATION	OFFSET	AREA (SF)
63	EB 10+69.95	50' RT.	4,938
86	EB 10+74.87	23.59' RT.	
87	EB 8+86.12	23.47' RT.	
88	EB 8+85.61	50' RT.	

1-15945--FEE SIMPLE
INCLUDES PEDESTRIAN BRIDGE EASEMENT 823 SF AND ROOF EASEMENT 1,009 ST

PT	STATION	OFFSET	AREA (SF)
76	EB 15+53.33	34.25' RT.	9,828
3	EB 15+63.27	0' LT.	
31	EB 13+57.92	0' LT.	
32	EB 13+57.84	50' LT.	
37	EB 13+40.47	50' LT.	
38	EB 13+40.47	104.24' LT.	
43	EB 13+30.47	104.24' LT.	
41	EB 13+30.47	50' LT.	
69	EB 13+31.42	50' LT.	
72	EB 13+31.51	34.51' RT.	

1-15945--EXCLUSIVE PERMANENT EASEMENT (BRIDGE PIER EASEMENT)

PT	STATION	OFFSET	AREA (SF)
46	EB 11+98.10	30.88' RT.	888
47	EB 11+98.02	43.13' LT.	
49	EB 11+86.02	43.12' LT.	
48	EB 11+86.10	30.89' RT.	

51	EB 11+21.19	46.45' RT.	121
53	EB 11+21.19	35.45' RT.	
56	EB 11+10.19	35.45' RT.	
54	EB 11+10.19	46.45' RT.	

57	EB 10+88.04	37.84' RT.	1,250
58	EB 11+03.36	46.01' LT.	
62	EB 10+88.93	48.65' LT.	
61	EB 10+73.61	35.21' RT.	

WSDOT(1-15945)- PEDESTRIAN BRIDGE EASEMENT
LYING BETWEEN ELEVATIONS 36.0' AND 84.6'
BASED ON NAVD 88 VERTICAL DATUM

PT	STATION	OFFSET	AREA (SF)
137	EB 15+23.36	10.73' RT.	553
138	EB 14+99.36	11.73' RT.	
139	EB 14+99.36	34.26' RT.	
140	EB 15+23.36	34.26' RT.	

WSDOT(1-15945&1-15953)- PEDESTRIAN BRIDGE EASEMENT
LYING BETWEEN ELEVATIONS 37.8' AND 84.6'
BASED ON NAVD 88 VERTICAL DATUM

PT	STATION	OFFSET	AREA (SF)
135	EB 14+99.36	50' LT.	1,472
136	EB 15+24.14	50' LT.	
141	EB 15+23.36	44.01' LT.	
137	EB 15+23.36	10.73' RT.	
138	EB 14+99.36	11.73' RT.	

1-17661- PEDESTRIAN BRIDGE EASEMENT
LYING BETWEEN ELEVATIONS 37.8' AND 84.6'
BASED ON NAVD 88 VERTICAL DATUM

PT	STATION	OFFSET	AREA (SF)
135	EB 14+99.36	50' LT.	83
136	EB 15+24.14	50' LT.	
142	EB 15+24.75	54.71' LT.	
145	EB 14+99.36	51.97' LT.	

1-17661- PEDESTRIAN BRIDGE EASEMENT
LYING BETWEEN ELEVATION 36.0' AND 84.6'
BASED ON NAVD 88 VERTICAL DATUM

PT	STATION	OFFSET	AREA (SF)
142	EB 15+24.75	54.71' LT.	282
143	EB 15+26.18	65.71' LT.	
144	EB 14+99.36	62.77' LT.	
145	EB 14+99.36	51.97' LT.	

1-17661- PEDESTRIAN BRIDGE PIER SUPPORT FOUNDATION EASEMENT BELOW A PLANE OF ELEVATION 20.3'
BASED ON NAVD 88 VERTICAL DATUM

PT	STATION	OFFSET	AREA (SF)
146	EB 15+23.54	53.47' LT.	212
147	EB 15+23.54	62.47' LT.	
148	EB 15+00.04	62.47' LT.	
149	EB 15+00.04	53.47' LT.	

1-17661- PEDESTRIAN BRIDGE PIER SUPPORT EASEMENT LYING BETWEEN ELEVATIONS 20.3' AND 84.6'
BASED ON NAVD 88 VERTICAL DATUM

PT	STATION	OFFSET	AREA (SF)
150	EB 15+13.79	55.97' LT.	16
151	EB 15+13.79	59.97' LT.	
152	EB 15+09.79	59.97' LT.	
153	EB 15+09.79	55.97' LT.	

THIS PLAN SUPERSEDES SR 519, EASTBOUND: KINGDOME VICINITY AND SR 90 CONNECTION, SHEETS 1 THRU 4 OF 4 SHEETS, APPROVED SEPTEMBER 4, 1998.

SR 519

4TH AVE. S. TO 1ST AVE. S.

KING COUNTY

RIGHT OF WAY PLAN
MP 0.00 TO MP 0.24

WASHINGTON STATE DEPARTMENT OF TRANSPORTATION
OLYMPIA, WASHINGTON

EXAMPLE 1-16d

SEE 100.03(3)(f)

ANDREW P. WALTER — STATE OF WASHINGTON — 42842 — REGISTERED PROFESSIONAL ENGINEER

APPROVED AND ADOPTED SEPTEMBER 1, 2011

RIGHT OF WAY PLANS MANAGER

PROJECT ENGINEER

Whenever possible, leave this space empty for revision block.

Reference	Approval	Revision Description	By

LEGEND

ACCESS TO BE PROHIBITED SHOWN THUS ////////

PROPERTY OWNERSHIP NUMBERS -

PROPERTY LINES .....

0 50 100

SCALE IN FEET

SEATTLE TIDE LANDS

ALL PLANS ARE SUBJECT TO CHANGE. OWNERSHIP SHOULD BE VERIFIED. PROPOSED PROPERTY RIGHTS SHOWN MAY NOT HAVE BEEN ACQUIRED. PARTIES SEEKING CURRENT INFORMATION SHOULD CONSULT THE DEPARTMENT OF TRANSPORTATION HEADQUARTERS RIGHT OF WAY PLANS OFFICE FOR THE OFFICIAL PLAN ON FILE.

T.24N. R.4E. W.M.

CITY OF SEATTLE

THIS PLAN SUPERSEDES SR 519, EASTBOUND: KINGDOME VICINITY AND SR 90 CONNECTION, SHEETS 1 THRU 4 OF 4 SHEETS, APPROVED SEPTEMBER 4, 1998.

VARIOUS--TURNBACK TO CITY OF SEATTLE
(1-15947, 1-15948, 1-15949, WSDOT)

PT	STATION	OFFSET	AREA (SF)
297	4TH AVE 69+60.00	50' LT.	281,625
298	4TH AVE 69+60.00	73.21' LT.	
299	4TH AVE 73+80.00	96.82' LT.	
300	EB 7+50.86	106' LT.	
301	EB 7+50.20	46' LT.	
234	EB 8+13.66	50' LT.	
100	EB 8+13.66	50' RT.	
191	EB 7+49.12	53.00' RT.	
209	EB 7+48.65	98.00' RT.	
302	4TH AVE 75+85.00	93.75' LT.	
303	4TH AVE 76+96.00	93.75' LT.	
304	4TH AVE 76+96.00	107' LT.	
156	4TH AVE 79+66.74	107' LT.	
	R=434.50'	L=126.79'	
155	4TH AVE 78+58.72	172.52' LT.	
154	4TH AVE 78+58.72	199.82' LT.	
305	4TH AVE 82+00.00	199.97' LT.	
306	4TH AVE 82+00.00	50' LT.	
	R=501.00'	L=116.01'	
307	4TH AVE 81+41.70	50' RT.	
308	4TH AVE 75+39.98	50' RT.	
309	4TH AVE 74+39.98	50' RT.	
310	4TH AVE 64+80.00	50' RT.	
311	4TH AVE 64+80.00	50' LT.	

SEATTLE CITY LIGHT EASEMENT
SURPLUS PROPERTY (IC 1-17-08661)

PT	STATION	OFFSET	AREA (SF)
-	4TH AVE 77+53.26	199.95' LT.	3,073
-	4TH AVE 78+03.38	199.95' LT.	
313	4TH AVE 78+58.72	175.87' LT.	
155	4TH AVE 78+58.72	172.52' LT.	
	R=434.50'	L=126.79'	
156	4TH AVE 79+66.74	107' LT.	
-	4TH AVE 79+41.12	118.21' LT.	
-	4TH AVE 79+42.22	119.77' LT.	
-	4TH AVE 79+30.76	127.81' LT.	
-	4TH AVE 79+28.02	123.91' LT.	

WSDOT-- WSDOT RETAINED PROPERTY

PT	STATION	OFFSET	AREA (SF)
154	4TH AVE 78+58.72	199.82' LT.	31,039
155	4TH AVE 78+58.72	172.52' LT.	
	R=434.50'	L=126.79'	
156	4TH AVE 79+66.74	107' LT.	
157	4TH AVE 79+33.26	107' LT.	
158	4TH AVE 79+21.54	90.30' LT.	
159	4TH AVE 79+10.08	98.34' LT.	
160	4TH AVE 79+16.17	107' LT.	
304	4TH AVE 76+96.00	107' LT.	
303	4TH AVE 76+96.00	93.75' LT.	
302	4TH AVE 75+85.00	93.75' LT.	
209	EB 7+48.65	98' RT.	
208	4TH AVE 77+11	199.76' LT.	
207	4TH AVE 77+11.68	203.90' LT.	
206	4TH AVE 77+25.50	201.62' LT.	
205	4TH AVE 77+25.19	199.77' LT.	

1-15947--WSDOT (E-N PIER 1 FOUNDATION)

PT	STATION	OFFSET	AREA (SF)
186	EB 6+82.33	33.27' RT.	1,440
187	EB 7+31.78	33.27' RT.	
211	EB 7+31.78	64.79' RT.	
212	EB 7+24.08	73.08' RT.	
213	EB 7+10.38	73.08' RT.	
214	EB 7+02.09	64.79' RT.	
215	EB 7+02.09	49.58' RT.	
216	EB 6+82.33	49.58' RT.	

1-15947--WSDOT (EB AIR SPACE CORRIDOR)
LYING ABOVE ELEVATION 32' BASED
ON NAVD 88 VERTICAL DATUM

PT	STATION	OFFSET	AIR SPACE ELEVATION	AREA (SF)
181	EB 5+05.78	36.09' RT.	32'	27,642
182	EB 6+52.60	36.09' RT.	32'	
183	EB 6+56.60	44.59' RT.	32'	
185	EB 6+82.33	41.07' RT.	32'	
186	EB 6+82.33	33.27' RT.	32'	
187	EB 7+31.78	33.27' RT.	32'	
188	EB 7+31.78	39.13' RT.	32'	
189	EB 7+39.55	39.13' RT.	32'	
190	EB 7+37.85	52.88' RT.	32'	
191	EB 7+49.12	53.00' RT.	32'	
100	EB 8+13.66	50' RT.	32'	
192	EB 8+13.66	43.86' LT.	32'	
193	EB 6+99.58	45.74' LT.	32'	
194	EB 6+55.71	66.38' LT.	32'	
195	EB 6+20.90	34.31' LT.	32'	
196	EB 5+87.55	34.31' LT.	32'	
197	EB 5+74.16	47.88' LT.	32'	
198	EB 5+74.47	67.61' LT.	32'	
199	EB 5+37.58	68.00' LT.	32'	
200	EB 5+00.50	44.09' LT.	32'	
201	EB90 15+13.33	28.37' RT.	32'	
202	EB 5+05.86	28.37' RT.	32'	

1-15947--WSDOT (S-E & E-N RAMP AIR SPACE CORRIDOR)
LYING ABOVE AN INCLINED PLANE OF ELEVATION
21' AT THE NORTH AND 32' AT THE SOUTH
BASED ON NAVD 88 VERTICAL DATUM

PT	STATION	OFFSET	AIR SPACE ELEVATION	AREA (SF)
170	4TH AVE 77+67.33	85.90' LT.	21'	18,238
171	4TH AVE 77+67.33	40.73' LT.	21'	
172	4TH AVE 76+02.72	40.73' LT.	28.4'	
173	4TH AVE 75+71.96	35.53' LT.	29.8'	
174	4TH AVE 75+44.61	20.51' LT.	31'	
175	4TH AVE 75+44.61	13.29' RT.	31'	
176	4TH AVE 75+73.90	19.83' RT.	29.4'	
177	4TH AVE 77+34.12	19.83' RT.	21'	
180	4TH AVE 77+34.12	43.83' RT.	21'	
181	EB 5+05.78	36.09' RT.	32'	
182	EB 6+52.60	36.09' RT.	32'	
183	EB 6+56.60	44.59' RT.	32'	
184	4TH AVE 75+66.00	85.90' LT.	30'	

1-15947--WSDOT (E-S RAMP AIR SPACE CORRIDOR)
LYING ABOVE AN INCLINED PLANE OF ELEVATION
32' AT THE NORTH AND 22.0' AT THE SOUTH
BASED ON NAVD 88 VERTICAL DATUM

PT	STATION	OFFSET	AIR SPACE ELEVATION	AREA (SF)
194	EB 6+55.71	66.38' LT.	32'	8,020
195	EB 6+20.90	34.31' LT.	32'	
217	4TH AVE 74+12.98	50.39' LT.	30.6'	
218	4TH AVE 72+21.00	39.59' LT.	22'	
224	4TH AVE 72+19.33	69.47' LT.	22'	
225	4TH AVE 73+81.05	85.49' LT.	29.2'	

1-15947--WSDOT (N-E RAMP AIR SPACE CORRIDOR)
LYING ABOVE AN INCLINED PLANE OF ELEVATION
32' AT THE NORTH AND 23.0' AT THE SOUTH
BASED ON NAVD 88 VERTICAL DATUM

PT	STATION	OFFSET	AIR SPACE ELEVATION	AREA (SF)
198	EB 5+74.47	67.61' LT.	32'	6,801
199	EB 5+37.58	68' LT.	32'	
226	4TH AVE 73+79.12	0.65' RT.	30.6'	
227	4TH AVE 71+49.91	13.43' RT.	23'	
232	4TH AVE 71+48.57	10.53' LT.	23'	
233	4TH AVE 73+83.63	83.63' LT.	30.7'	

1-15947--WSDOT (ATL 3RD AVE AIR SPACE CORRIDOR)
LYING ABOVE ELEVATION 32' BASED
ON NAVD 88 VERTICAL DATUM

PT	STATION	OFFSET	AIR SPACE ELEVATION	AREA (SF)
190	EB 7+37.85	52.88' RT.	32'	5,200
191	EB 7+49.12	53.00' RT.	32'	
100	EB 8+13.66	50' RT.	32'	
203	EB 7+86.15	83.57' RT.	32'	
204	4TH AVE 77+67.18	199.78' LT.	32'	
205	4TH AVE 77+25.19	199.77' LT.	32'	
206	4TH AVE 77+25.50	201.62' LT.	32'	
207	4TH AVE 77+11.68	203.90' LT.	32'	
208	4TH AVE 77+11.00	199.76' LT.	32'	
209	EB 7+48.65	98.00' RT.	32'	
210	EB 7+32.29	97.88' RT.	32'	

1-15947--WSDOT (ATL 4TH AVE AIR SPACE CORRIDOR)
LYING ABOVE ELEVATION 34' BASED
ON NAVD 88 VERTICAL DATUM

PT	STATION	OFFSET	AIR SPACE ELEVATION	AREA (SF)
156	4TH AVE 79+66.74	107' LT.	34'	8,599
157	4TH AVE 79+33.26	107' LT.	34'	
158	4TH AVE 79+21.54	90.30' LT.	34'	
159	4TH AVE 79+10.08	98.34' LT.	34'	
160	4TH AVE 79+16.17	107' LT.	34'	
161	4TH AVE 78+86.88	107' LT.	34'	
	R=388.50'	L=39.91'	34'	
162	4TH AVE 79+20.17	85.03' LT.	34'	
163	4TH AVE 79+65.63	81.85' LT.	34'	
164	4TH AVE 79+63.47	47.94' LT.	34'	
	R=388.50'	L=121.91'	34'	
165	4TH AVE 80+35.22	50' RT.	34'	
166	4TH AVE 80+86.25	50' RT.	34'	
	R=434.50'	L=199.04'	34'	

1-15947--WSDOT (S-E RETAINED FILL)

PT	STATION	OFFSET	AREA (SF)
163	4TH AVE 79+65.63	81.85' LT.	8,900
167	4TH AVE 79+62.76	36.77' LT.	
168	4TH AVE 79+06.06	40.73' LT.	
171	4TH AVE 77+67.33	40.73' LT.	
170	4TH AVE 77+67.33	85.90' LT.	
169	4TH AVE 79+07.63	85.90' LT.	

--WSDOT (E-N RETAINED FILL)

PT	STATION	OFFSET	AREA (SF)
177	4TH AVE 77+34.12	19.83' RT.	4,722
178	4TH AVE 79+30.89	19.83' RT.	
179	4TH AVE 79+30.89	43.83' RT.	
180	4TH AVE 77+34.12	43.83' RT.	

1-15947--WSDOT (E-S RETAINED FILL)

PT	STATION	OFFSET	AREA (SF)
218	4TH AVE 72+21.00	39.59' LT.	5,236
219	4TH AVE 70+22.30	28.42' LT.	
220	4TH AVE 70+21.16	48.61' LT.	
221	4TH AVE 70+86.67	52.29' LT.	
222	4TH AVE 70+86.17	61.32' LT.	
223	4TH AVE 72+04.19	67.96' LT.	
224	4TH AVE 72+19.33	69.47' LT.	

--WSDOT (N-E RETAINED FILL)

PT	STATION	OFFSET	AREA (SF)
227	4TH AVE 71+49.91	13.43' RT.	5,372
228	4TH AVE 70+43.77	19.57' RT.	
229	4TH AVE 69+27.48	20.45' RT.	
230	4TH AVE 69+27.25	2.64' LT.	
231	4TH AVE 70+19.02	4.42' LT.	
232	4TH AVE 71+48.57	10.53' LT.	

1-15947--WSDOT (ATL PIER 1E FOUNDATION)

PT	STATION	OFFSET	AREA (SF)
238	EB 7+42.26	44.35' LT.	251
239	EB 7+58.09	44.59' LT.	
240	EB 7+57.85	60.42' RT.	
241	EB 7+42.02	60.18' RT.	

--WSDOT (ATL PIER 1W & EB PIER 5 FOUNDATION)

PT	STATION	OFFSET	AREA (SF)
234	EB 8+13.66	50' LT.	1,657
235	EB 8+13.66	65.52' RT.	
236	EB 7+99.31	65.52' RT.	
237	EB 7+99.31	49.87' LT.	

--WSDOT (EB PIER 6 FOUNDATION)

PT	STATION	OFFSET	AREA (SF)
242	EB 7+17.78	38.91' LT.	1,010
243	EB 7+31.78	38.91' LT.	
187	EB 7+31.78	33.27' RT.	
312	EB 7+17.78	33.27' RT.	

1-15947--WSDOT (EB PIER 7 & S-E PIER 4 FOUNDATION)

PT	STATION	OFFSET	AREA (SF)
244	EB 6+53.79	62.37' LT.	2,110
245	EB 6+63.21	52' LT.	
246	EB 6+45.16	35.62' LT.	
247	EB 6+45.16	45.71' RT.	
248	EB 5+89.19	45.10' RT.	
249	EB 5+89.33	32.10' RT.	
250	EB 6+31.16	32.56' RT.	
251	EB 6+31.16	41.81' LT.	

--WSDOT (EB PIER 8 & S-E PIER 4 FOUNDATION)

PT	STATION	OFFSET	AREA (SF)
252	EB 5+51.36	65.75' LT.	1,547
253	EB 5+65.36	65.75' LT.	
254	EB 5+65.36	44.84' RT.	
255	EB 5+51.36	44.69' RT.	

--WSDOT (EB PIER 9 & E-N PIER 4 FOUNDATION)

PT	STATION	OFFSET	AREA (SF)
200	EB 5+00.50	44.09' LT.	1,473
256	EB 5+14.62	44.09' LT.	
257	EB 5+14.62	32.32' RT.	
258	EB 5+27.49	32.32' RT.	
259	EB 5+27.49	45.32' RT.	
260	EB90 15+13.51	45.32' RT.	

1-15947--WSDOT (S-E PIER 3 FOUNDATION)

PT	STATION	OFFSET	AREA (SF)
261	4TH AVE 75+96.23	49.05' LT.	375
262	4TH AVE 75+96.23	77.89' LT.	
263	4TH AVE 76+09.23	77.89' LT.	
264	4TH AVE 76+09.23	49.05' LT.	

1-15947--WSDOT (S-E PIER 2 FOUNDATION)

PT	STATION	OFFSET	AREA (SF)
265	4TH AVE 76+86.45	49.05' LT.	375
266	4TH AVE 76+86.45	77.89' LT.	
267	4TH AVE 76+99.45	77.89' LT.	
268	4TH AVE 76+99.45	49.05' LT.	

1-15947--WSDOT (E-S PIER 9 FOUNDATION)

PT	STATION	OFFSET	AREA (SF)
277	4TH AVE 72+85.11	52.70' LT.	196
278	4TH AVE 72+84.33	66.68' LT.	
279	4TH AVE 72+98.31	67.47' LT.	
280	4TH AVE 72+99.09	53.49' LT.	

1-15947--WSDOT (E-S PIER 8 FOUNDATION)

PT	STATION	OFFSET	AREA (SF)
281	4TH AVE 73+75.10	59.43' LT.	196
282	4TH AVE 73+74.32	73.41' LT.	
283	4TH AVE 73+88.29	74.20' LT.	
284	4TH AVE 73+89.08	60.22' LT.	

--WSDOT (E-N PIER 5 FOUNDATION)

PT	STATION	OFFSET	AREA (SF)
269	4TH AVE 75+76.14	27.18' RT.	169
270	4TH AVE 75+89.14	27.18' RT.	
271	4TH AVE 75+89.14	40.18' RT.	
272	4TH AVE 75+76.14	40.18' RT.	

--WSDOT (E-N PIER 6 FOUNDATION)

PT	STATION	OFFSET	AREA (SF)
273	4TH AVE 76+61.44	27.18' RT.	169
274	4TH AVE 76+74.44	27.18' RT.	
275	4TH AVE 76+74.44	40.18' RT.	
276	4TH AVE 76+61.44	40.18' RT.	

--WSDOT (N-E PIER 2 FOUNDATION)

PT	STATION	OFFSET	AREA (SF)
285	4TH AVE 71+99.99	4.83' RT.	169
286	4TH AVE 71+99.26	8.15' LT.	
287	4TH AVE 72+12.24	8.87' LT.	
288	4TH AVE 72+12.97	4.11' RT.	

--WSDOT (N-E PIER 3 FOUNDATION)

PT	STATION	OFFSET	AREA (SF)
289	4TH AVE 72+78.61	0.45' RT.	169
290	4TH AVE 72+77.88	12.53' LT.	
291	4TH AVE 72+90.86	13.25' LT.	
292	4TH AVE 72+91.59	0.27' LT.	

--WSDOT (N-E PIER 4 FOUNDATION)

PT	STATION	OFFSET	AREA (SF)
293	4TH AVE 73+57.22	3.93' LT.	169
294	4TH AVE 73+56.50	16.91' LT.	
295	4TH AVE 73+69.48	17.63' LT.	
296	4TH AVE 73+70.20	4.65' LT.	

EXAMPLE 1-16e

SEE 100.03(3)(f)

SR 519

4TH AVE. S. TO 1ST AVE. S.

KING COUNTY

RIGHT OF WAY PLAN
MP 0.00 TO MP 0.24

WASHINGTON STATE DEPARTMENT OF TRANSPORTATION
OLYMPIA, WASHINGTON

Whenever possible, leave this space empty for revision block.

Reference	Approval	Revision Description	By

ANDREW P. WALTER — STATE OF WASHINGTON — 42842 — REGISTERED PROFESSIONAL ENGINEER

PROJECT ENGINEER

APPROVED AND ADOPTED SEPTEMBER 1, 2011

RIGHT OF WAY PLANS MANAGER

(e) Use cross-hachuring only for small, isolated areas of work such as pavement repair areas or butt joint planing locations that may get lost if not displayed in this manner. On occasion, with concurrence of the Region Plans Office, color may be used for clarity. Gray-area shading is reserved exclusively for use in an addendum to highlight changes to a plan sheet. (See the Appendices for Addendum Preparation.)

(f) Plan sheets may be plotted or be hand drafted. If hand drafted, use black ink on full-size Mylar sheets and then reduce at the time of submittal to the region.

(g) Sheets utilizing a combination of CADD-generated base maps and inked construction features will be considered hand-drafted sheets. No stick-ons are to be used on plan sheets.

(h) All screened (half-toned) portions of plan sheets shall be dark enough to adequately reproduce.

(i) Line weight, lettering height, and symbols for Contract Plans shall conform to the standards contained in the *Electronic Engineering Data Standards* manual. It is important to conform to these standards for consistency and for reproduction.

(j) Under most circumstances, lettering and dimensioning shall be placed so they may be read from either the bottom of the sheet or the right side of the sheet. Text shall not be placed across roadway centerlines or right of way lines. Text is to be clear of all lines and should normally be placed outside the drawing itself. Leader lines shall not cross one another or text. The two exceptions to the bottom and right reading text are:

1. All Section Corner and Township line numbers shall have their tops to the north, and Range Line numbers shall have their tops to the west, regardless of the orientation of north to the sheet.
2. All information identifying a centerline, such as line designation, stationing, tick marks, and bearings, shall be placed on top of the line and read left to right, with both the top of the line and left to right being based on the direction of the stationing.

(k) When lines are coincidental, the following order of precedence for placing them on the sheet shall be used:

1. Construction Centerline
2. Right of Way Centerline
3. Range/Township Line
4. Section Line
5. Corporate Limit Line
6. County Line

(l) When Corporate Limit lines coincide with other lines, the Corporate Limits will be labeled in an effort to clarify that the line is also the corporate limits.

(m) Each plan view sheet shall have a north arrow and a scale bar. The north arrow will normally be oriented towards either the top or right side of the sheet.

(n) All plan view sheets and profile sheets that physically show the Begin Project and End Project headings will identify these points as follows:

STATE-FUNDED PROJECTS:

Begin Project	End Project
SR XX, MP XX.XX	SR XX, MP XX.XX
STA XX+XX.XX	STA XX+XX.XX

FEDERALLY FUNDED PROJECTS:

Begin F.A. No.	End F.A. No.
Begin Project	End Project
SR XX MP XX.XX	SR XX MP XX.XX
STA XX+XX.XX	STA XX+XX.XX

(o) If the "Begin and/or End Federal Aid" are different than the "Begin and/or End Project," this information will be displayed similarly to the above on a separate leader line drawn to the appropriate location. Use "Begin Construction" and "End Construction" when work is being done on crossroads adjacent to the main line work or at ramp termini.

(p) Each series of plan view sheets (such as site preparation, drainage, paving, and others) shall have a legend of features applicable to that series, and the legend will appear on each plan sheet of that series.

(q) The legend is to contain all items that are shown on any of the individual plan sheets in that series. For example, if your Drainage Plan series consists of 15 plan sheets, and throughout these 15 plan sheets there are 12 items to be identified in the legend, all 15 of the drainage plan sheets in this series will have a legend that will have all 12 items listed and identified.

(r) If a sheet in the series is too crowded to include a legend, a note shall be added to the sheet to tell the reader on which sheet the legend may be found. The preferred method is to refer the reader to the legend on the preceding sheet.

(s) WSDOT Contract Plans show the slope of a line in several forms, such as ratio, percentage, and decimal. When a slope is shown in ratio form in WSDOT plans, it is shown as run over rise, which is opposite of mathematical standards in which a slope is always given as rise over run in ratio and fraction form. In WSDOT plans, a 4:1 slope means that the slope has a 4-foot horizontal run and a 1-foot vertical rise. Some WSDOT manuals further clarify the meaning of a 4:1 slope by adding a post text, such as 4H:1V, to further clarify that there are four units horizontal (run) and one unit vertical (rise). However, WSDOT Contract Plans will not carry such a post text.

(t) Plan sheets prepared by architects and engineers for building facilities and associated site improvements shall be exempt from the requirements of the drafting standards described in this chapter. Drafting standards for building facilities and associated site improvements shall be determined by the Facilities Administrator.

400.05 Plan Sheet Sizes and Layout Format

(1) General Information

(a) The Advertisement set of plan sheets shall be on 11-inch by 17-inch paper.

(b) If the Contract Plans have more than 225 sheets or Contract Provisions have more than 225 pages, they will need to be separated into volumes, with no volume having more than 225 sheets or pages.

- The break for volumes is to be made at a logical point in the package, which may not be at 225 sheets or pages.
- If a project has 275 plan sheets, and the last 80 are bridge sheets, the logical break would be between the civil sheets and the bridge sheets.
- If multiple volumes are required for the Contract Provisions, the logical break would be at the end of a main section. For example, break between HOT MIX ASPHALT PAVEMENT and the following main section, CULVERTS.
- Do not place the break in the middle of a section.

(c) Stamping: WSDOT plans and specifications shall be stamped with a seal, signature, and the date signed; the expiration date of the license is optional. Licensees are directed to WSDOT Executive Order E 1010.00, RCW 18.43, and WAC 196 (Engineers and Land Surveyors); RCW 18.08 and WAC 308-12 (Architects); and RCW 18.96 and WAC 308-13 (Landscape Architects).

- The licensee's seal shall be placed on all plan sheets adjacent to the WSDOT logo, except for the Index to the plans, Vicinity Map, Summary of Quantities, and Quantity Tabulations. Bar-Lists are not required to be stamped. This space should be reserved during initial plan sheet layout.
- The following plan sheets prepared by WSDOT are not required to be stamped: index, Vicinity Map, Summary of Quantities, Quantity Tabulations, Bar-Lists, TESC sheets, and Traffic Control Plans.
- For plans prepared by consultant/developers, the Licensed Engineer's seal, signature, date signed (expiration date of license is optional), and logo is to be placed on all plan sheets adjacent to the WSDOT logo. The index to the plans, Vicinity Map, Summary of Quantities, Quantity Tabulations, and Bar-Lists are not required to be stamped. This space should be reserved during initial plan sheet layout.

(d) Construction notes shall be numbered consecutively within each plan sheet series of the project. However, only the construction notes that are applicable to a particular sheet shall be shown on that plan sheet. Once you have created a construction note 1, it will always be the same for that plan sheet series. Continue sequencing of construction notes consecutively as you add them. **DO NOT** resequence from one plan sheet to the next. Each plan sheet series will have consecutive construction notes.

(2) Title Bar Information

All plan sheets have a title bar on the bottom of the plan. Fill in the information according to the following instructions:

- PLOTTED BY: The first and last name of the person who created the plot.
- DESIGNED BY: The first and last name of the person who designed the sheet.

- ENTERED BY: The first and last name of the CADD operator who electronically entered the plan.
- CHECKED BY: The first and last name of the design team leader or person who checked the plan.
- PROJ. ENGR.: The first and last name of the design Project Engineer.
- REGIONAL ADM.: The first and last name of the Region Administrator.
- REVISION box: To be filled out when there is a revision made after the Advertisement Date. This is generally for the purpose of issuing an addendum

In the block labeled REVISION, give a brief description of the revision that was made.

- DATE: Enter the date in which the revision was made.
- BY: Enter the initials of the person who made the revision.
- REGION NO.: This is an FHWA number; 10 is for Washington State.
- STATE: This should always be WASH.
- JOB NUMBER: Enter the number used for the Estimate Bid Analysis System (EBASE) that is issued by the Region Plans Office.
- CONTRACT NO.: This field is left blank. The contract number is entered by hand at Headquarters after the contract has been awarded.
- FED. AID PROJ. NO.: Enter the Federal Aid Project Number if there is federal aid in the construction phase of the project. This number can be obtained from the Region Program Management Office.
- LOCATION NO.: Enter the preliminary engineering work order number.
- PE STAMP BOXES: All plans that are considered final and that will be part of the advertised contract must contain the seal/stamp of the licensee who prepared or directly supervised the work. Preliminary documents—those documents not considered final—shall be stamped by the licensee who prepared or directly supervised the work. For more direction, refer to Executive Order E 1010.00, WAC 196-23-020, and RCW 18.43.
- PROJECT TITLE BOX: This is the upper portion of the box that is directly to the right of the WSDOT logo. Enter the exact project name, as determined by the Region Plans Office.
- SHEET TITLE: This is the lower portion of the box that is directly to the right of the WSDOT logo. Enter the sheet name as it appears in the Title column of the Index.
- PLAN REFERENCE: This is the upper portion of the box farthest right on the title bar. This is an alpha/numeric number. The alpha portion is selected by the design team; it should be logical in nature, containing letters that refer to the type of plan. The numeric portion is sequential. The plan reference shall match the Plan Reference No. column of the Index. For suggested plan reference abbreviations, see the *Electronic Engineering Data Standards Manual*.
- SHEET NUMBER: This is the lower portion of the box farthest right on the title bar. This field is filled in on the plans that are advertised when the total number of sheets is fixed. Contact the Region Plans Office for instructions on filling in this field for the review of the plans.

400.06 Plan Sequence

(1) Assembling Plans

The following outline is the sequence to follow when assembling plans for a construction project. It is a list of possible plan sheets and is not intended to represent a project.

(a) **Plan Sequence**

1. Index.
2. Vicinity Map.
3. Summary of Quantities.
4. Borrow, pit, quarry, stockpile, waste sites, and reclamation plans.
5. Roadway sections: main roadway, ramps, frontage roads, detours, others.
6. Grading sections, if applicable.
7. Stage construction plans, if applicable.
8. Alignment or Alignment/Right of Way.
9. Quantity Tabulation sheets (Q-tabs). These sheets will be placed immediately prior to the plan sheets showing the work being tabulated, such as site preparation items, temporary erosion and sediment control (TESC) items, guardrail items, and traffic items.
10. Site Preparation. Existing topography and removal and demolition work may be shown on Alignment Plans; however, if extensive details are required and the plan sheet becomes too crowded, it should be on a separate series.
11. Existing Utilities. This is an extension of the Site Preparation Plan and is only required if the existing utilities are so extensive that they cannot be clearly shown on the Site Preparation Plan.
12. Roadway profiles—normally only required when grade is being revised.
13. TESC Plans—may not be required if work is minor and can be combined with Drainage Plans or other plan sheets. Refer to Division 7 for information on when a TESC Plan is required.
14. TESC details.
15. Drainage structure notes—will precede plan series showing drainage features.
16. Drainage Plans—may not be required if work is minor and can be combined with another series of plans.
17. Drainage profiles—will follow plan series showing drainage features.
18. Drainage details.

19. Utility Structure Note sheets—only required if there is work to be done by the contractor on existing utilities.
20. Utility Plans—only required if there is work to be done by the contractor on existing utilities.
21. Utility details—only required if there is work to be done by the contractor on existing utilities.
22. Irrigation Structure Note sheets.
23. Irrigation Plans.
24. Irrigation details.
25. Landscape, wetland, rest areas, roadside restoration, and viewpoints.
26. Interchange contours.
27. Paving Plans are required for overlay projects when paving breaks, paving dimensions, intersection paving, taper lengths, dimensions of taper widths, and so on, can't be shown adequately on the roadway sections. In this case, the roadway sections, Paving Plans, and Paving Detail sheets are to be prepared in conjunction with each other to show all the paving work.
28. Paving details.
29. Minor structures such as retaining walls.
30. Illumination Plans—may be shown on Paving Plans if illumination is minor and Paving Plan will not be too crowded.
31. Illumination details—will follow plan series showing illumination layout.
32. Traffic Signal Plans.
33. Traffic signal details.
34. Intelligent Transportation System (ITS) Plans.
35. ITS details.
36. Sign Specification sheets—will precede the plan series showing the signing.
37. Signing Plans—may be shown on Paving Plans if signing is minor and Paving Plans will not be too crowded.
38. Signing details—will follow plan series showing signing.
39. Bridges and other structures.
40. Building plans and details.
41. Traffic Control Plans.
42. Detour routes and detour signing. If the detour is simple and straightforward, this information may be shown on the Vicinity Map, as long as the additional information does not detract from the Vicinity Map.

(9) Alignment/Right of Way Plan

See Contract Plan Examples 4-18 and 4-19.

The alignment and right of way (R/W) information will appear on the same series of plan sheets for most projects.

In the past, right of way was required to be shown for projects having work outside the existing toe of fills or existing bottom of ditches. Now, for the purpose of reducing the number of plans sheets, the designer should include Right of Way Plans only when they are necessary for contractors to perform their work.

If R/W information is not required (such as for a paving project), the alignment information could be shown on another plan series, such as the Site Preparation Plan series or the Paving Plan series, as long as the additional information does not cause overcrowding of the plan sheet.

Site preparation information may appear with the Alignment Plans, but only if there is minimal existing topography and minimal site preparation work to be shown. If there is considerable topography or a great deal of site preparation work to be shown, the information is to be placed on a separate plan series.

(a) Alignment/Right of Way Plan Series

The following information will normally appear on the Alignment/Right of Way Plan series:

1. Construction centerlines for all roadways being constructed.
2. All stationing, bearings, and curve data associated with each construction centerline. For new construction, ramp stationing will always run in the same direction as the main line stationing.
3. Right of way centerline—not always required (see discussion below).
4. Right of way lines. All WSDOT R/W Boundary Lines (proposed and existing), *without exception*, will always be solid lines on the Contract Plans.
5. Ties of all right of way breaks to either the right of way or construction centerlines—show both station and offset distance.
6. Construction permits with private citizens, and all easements, identified by type and use.
7. Ties of all construction permits and all easements to either the right of way or construction centerline—show both station and offset distance.
8. Township and Range Lines that cross centerline, with appropriate descriptive information (such as bearing and distance to found corners), including centerline stationing at intersection point.
9. Limited access hachures when appropriate. Hachures need to be drawn to the correct stationing, but the stationing of the ends or breaks in limited access does not have to be identified on the construction plans.
10. Found Section Corners and monuments, with station and offset ties to construction centerline.
11. Station and offset ties to railroads and railroad rights of way that intersect the project or are affected by the project.

12. Corporate limit and county lines with station identification where they cross the construction centerline.
13. Names of rivers, streams, bays, and inlets, their direction of flow and meander lines, and the ordinary high tide or high-water lines of navigable waterways.
14. On all projects that include grading, the slope catch lines shall be shown. It may be desirable to show slope catch lines on the Drainage Plan; however, if this is done, the right of way line must also be shown on the Drainage Plan.
15. The outline of sand drainage blankets, unsuitable foundation excavation, and toxic waste excavation areas.
16. Show all found property corners along WSDOT R/W lines with a note stating "Per RCW 58.09.130, any monument or corner disturbed by the Contractor's operation shall be replaced at no cost to the Contracting Agency."

(b) **Right of Way Centerline**

When the right of way centerline is coincidental with the construction centerline, an equation shall be provided at the Begin Project and End Project to show the relationship between the official right of way stationing and the construction centerline stationing. An equation will be provided to show relationship between the construction centerline and the right of way centerline at the location of Right of Way Plan equations. All right of way offsets and associated stationing will then be referenced to the construction centerline.

When the right of way centerline is **not** coincidental with the construction centerline, the same procedure described in the previous paragraph may be used. The offset distance between the right of way and construction centerlines shall be shown at the Begin Project and End Project. In addition to the equations at the Begin Project and End Project, equations shall be shown at all points where the right of way and construction centerlines cross and at the location of Right of Way Plan equations.

(c) **Right of Way Stationing/Alignment**

The official Right of Way Plans may be included in the Contract Plans under the following circumstances:

- The official right of way stationing runs the opposite direction of the construction stationing.
- The right of way alignment is substantially different than the construction alignment and is not easily tied. For example, the right of way alignment has numerous curves that do not exist in the construction centerline and the right of way would have to be described using metes and bounds as opposed to offsets from the construction centerline.

If either of the two circumstances above exists, the designer needs to contact the HQ Right of Way Plans Section and request that it prepare the existing Right of Way Plans to be included in the Contract Plans. The designer will have to provide the HQ Right of Way Plans Section with the equation relating the Begin Project and End Project construction centerline to the existing R/W stationing. If this option is used, the HQ Right of Way Plans Section needs to be notified early

in the design process so that the work can be added to its schedule, to ensure the plans can be prepared within the PS&E schedule.

If the project requires that Profile sheets be included in the Contract Plans, the layout of the Alignment Plan sheet must take into account that the station limits on each Profile Plan sheet are to match exactly the station limits of each Alignment Plan sheet.

Horizontal alignment and steep grades can each affect the matching of stationing limits between the Alignment and Profile sheets, so they must be examined together. The alignment and profile may be shown on the same plan sheet by showing both the plan and profile on same sheet.

(d) **Vicinity Map**

Township and Range information is to be shown on the Vicinity Map. It does not have to be shown on the Alignment Plans unless one or both of the following cases occurs:

- The Township or Range Lines cross the centerline, in which case the line will be shown with the station of the intersection identified.
- Right of way boundary lines are shown WITH dimensions from the roadway alignment.

Section Lines only have to be shown on the Alignment Plans if the Section Corners are found, requiring that the ties to centerline be shown.

The following information will be shown for all horizontal alignments:

1. Line identification, using alpha designation and stationing (M 5+50).
2. Station ticks shown on the top side of the alignment line—top as related to the direction of the stationing.
3. Tangent bearings.
4. Point of intersection (PI), point of curvature (P.C.), point of tangency (P.T.), point on tangent (POT), point on curve (POC), point of compound curve (PCC), point of reverse curve (PRC) and point on semitangent (POST) for all horizontal alignment where applicable.
5. Angle points (A.P.) in horizontal alignments.
6. Curve data box showing:
    - Station of the point of intersection (P.I.) of bearings for each curve.
    - Delta for each curve: deflection angle between intersecting bearings.
    - Radius of each curve.
    - Tangent length for each: distance from P.C. and P.T. to the P.I.
    - Length of curve for each curve: distance from P.C. to P.T. along the horizontal curve.
    - Full super rate for each horizontal curve.

(e) **Construction Stationing**

Construction stationing shall increase from the beginning of the project to the end, and shall run from south to north on odd-numbered highways, and west to east on even-numbered highways.

All ramp stationing for new construction shall increase in the same direction as the main line stationing.

Ramp stationing should begin at station 10+00 to avoid negative stationing due to alignment changes.

Offset equations shall be shown as follows:

- The secondary line (ramp, crossroad, or right of way centerline) designation and station is listed first.
- The main line (construction centerline) designation and station, perpendicular distance, and left or right is listed next. The direction (left or right) is referenced from main line looking ahead on line.

(f) **Linear Equations**

Linear equations should not be an issue if the designer establishes construction stationing for the project instead of using right of way stationing. If linear equations are present, the designer must make sure that they are gap equations and not overlap equations. Overlap equations cause confusion because of the duplication of stationing caused by the overlap. To convert an overlap equation to a gap equation, a 1 can be added in front of the Ahead station (5+00 would become 15+00), or the first digit of the Ahead station can be increased by 1 (110+00 would become 210+00).

Examples:

1. Overlap equation 10+00 BK =
   5+00 AHD

   add 1 in front of the Ahead station would become

   Gap equation 10+00 BK =
   15+00 AHD

2. Overlap equation 150+00 BK =
   110+00 AHD

   add 1 to the first digit of the Ahead station would become

   Gap equation 150+00 BK =
   210+00 AHD

When showing the equation in the plans, the BACK station goes on the back-side of the equation line and the AHEAD station goes on the ahead-side of the equation line.

(10) Quantity Tabulation Plan Sheets

See Contract Plan Examples 4-20 and 4-32.

Quantity Tabulation Plan sheets are used to tabulate the locations, quantities, and notes pertaining to specific bid items. Quantity Tabulation Plan sheets may not be required on projects where the information is shown elsewhere in the contract.

(a) Quantity Tabulation Plan Sheet Items

The following types of items will normally appear on Quantity Tabulation sheets:

1. Removal items—except items paid by lump sum.
2. Asphalt concrete curb and asphalt concrete gutter.
3. Timber and lumber—except bridge items.
4. Cement concrete approach.
5. Cement concrete curbs, and curb and gutter.
6. Guardrail items, including anchors, terminals, and transition items.
7. Concrete barrier items.
8. Impact attenuators.
9. Guideposts.
10. Raised pavement markers, paint lines, and pavement marking items.
11. Conduit pipe—except bridge, illumination, and traffic signal system items.
12. Wildlife reflectors.
13. Steel reinforcing bars and wire mesh—except bridge structural retaining walls and drainage items.
14. Monument cases and covers.
15. Cement concrete sidewalk.
16. Asphalt concrete sidewalk.
17. Concrete slope protection.
18. Fencing items, including gates and end, corner, and pull posts.
19. Adjustment items.
20. Delineation lights.
21. Temporary Erosion and Sediment Control Devices.

(b) Quantity Tabulation Plan Sheet Preparation

Quantity Tabulation Plan sheets are to be prepared on 11-inch by 17-inch paper. The Quantity Tabulation spreadsheet program is available through the Region Plans Offices or the HQ Project Development Unit. For additional information and instructions for the Quantity Tabulation spreadsheet, see the Appendices).

Standard sheets have been prepared with the heading "Quantity Tabulation." A descriptive addition (see types of items above) may be added after the plan sheet heading "QUANTITY TABULATION – XXXXXXX XXXXXX" to indicate what type of work is included on this plan sheet.

Quantity Tabulation Plan sheets will be placed immediately preceding the plan sheets that contain the tabulated items. This will intersperse them throughout the plans.

For projects involving only a few items, the quantities may be placed in data boxes on appropriate plan sheets or on Profile sheets, eliminating the need for Quantity Tabulation Plan sheets. Data boxes should be laid out in the same manner as the Quantity Tabulation sheets.

Blank columns shall be provided between listed bid items, and blank rows shall be provided in station listing (about every fifth entry and a space or two between each reference sheet listed). This procedure allows for the addition of bid items and stationing with ease, even during the addendum phase.

(c) **Bid Items**

Bid items shall be placed from left to right in the same order in which they appear in the Summary of Quantities Estimate.

Bid items shall be identified on the Quantity Tabulation Plan sheets exactly as they appear in the *Standard Specifications* (spelling, punctuation, spacing, and so on) and in the same order as they appear on the Summary of Quantities.

If there are more bid items to be tabulated than will fit across the top of the sheet, with the appropriate blank spaces, additional Quantity Tabulation Plan sheets will be required. The station listing will be identical for the continued sheets. Likewise, if there are more station listings than will fit on a single sheet, with the required blank spaces, additional Quantity Tabulation Plan sheets will be required. The bid items across the top will be identical for the continued sheets.

Each time an item is used in a different location, it will have a separate quantity entry. Related items, however, may be included in a single entry if the station limits are the same. For example, a single entry could include the type of guardrail, required anchors, and transition types.

Each quantity entered on the Quantity Tabulation Plan sheet is to be rounded appropriately at the time of entry. Do not add up the unrounded quantities and round the total to carry forward to the Estimate/Summary of Quantities. (See the information on rounding in 400.06(3), Summary of Quantities.)

The bid item totals on the Quantity Tabulation sheets must be consistent with the bid item totals entered in the Summary of Quantities Estimate.

(d) **Plan Reference No.**

The **Code** column shall contain the Quantity Tabulation code number, which is made up of the Plan Reference No. and the number identifying the individual construction feature on the sheet (for example, P1-1, P1-2, … P1-6, P2-1, P2-2, … P2-26). The numbers shall be listed in the ascending order of plan sheets.

Bid items, identified by station(s) and quantity or quantities, on individual Quantity Tabulation Plan sheets are tied directly to the plan sheet series they are related to by the number immediately following the Plan Reference No. mentioned above. The related series sheet shall have its own consecutive series of numbers identifying construction features (octagonal enclosed numbers beginning with number 1) beginning in the top left corner of the sheet and progressing across and down the sheet. A light, arrowless line shall be drawn from the octagon to the construction feature. When a construction feature is continued on more than one sheet, the octagon on the continued sheet shall be divided with a horizontal line, and the Plan Reference No. on which the construction feature first appears shall be inserted in the upper half and the first sheet individual identifying number shall be inserted in the lower half. If this is done, a larger-scale octagon may be used. The octagonal symbol shall not be used for any other purposes.

For items such as pavement markings that are continuous for the entire project, list the station limits and leave the code column blank.

(e) **General Notes**

The General Notes will include information required to complete the data for a particular construction feature, such as:

- Guidepost type and color.
- Guardrail placement case, terminal connection, alternate anchor type, and connection type when connecting transition to stiffer barrier like bridge rail.
- Acceptable impact attenuators for each location.
- References to applicable Special Provisions identify the Special Provision by the exact name.
- References to applicable details in the Contract Plans. Identify the exact plan sheet (using the Plan Reference No.) where the detail is located.
- Reference to applicable Standard Plan(s). Provide the Standard Plan number, which is located in the bottom right corner of the page.
- Type of curbing to be used.

If the quantities for an item appear on other plan sheets in addition to the Quantity Tabulation Plan sheets, cross-references shall be made to the sheets where the additional quantities can be found.

(11) Site Preparation

See Contract Plan Example 4-21.

The Site Preparation Plan series is where all existing topography within your project limits is to be shown, as well as all the project removal and demolition work.

If there is very little topography to be shown and very little removal and demolition work to be performed, this information can be shown on the Alignment/Right of Way Plan series as long as it does not compromise the information required on the Alignment/Right of Way Plans.

The construction centerlines will be shown on the Site Preparation Plans; however, lanes, shoulders, and other features being constructed are not to be shown.

Removal and demolition of existing features, paid as separate items, are to be identified using the General Notes in the Quantity Tabulation sheets.

Items included in the lump sum price for “Removal of Structures and Obstructions,” are to be identified with notes located directly on the appropriate plan sheet. For example, removal of wire fence should be identified with a note such as “wire fence to be removed.” Items of work (such as removal of guideposts) included in the lump sum price for “Removal of Structures and Obstructions” that cover the entire project do not have to be identified on the plan. Items of work being paid as "Removal of Structures and Obstructions" will not appear on Quantity Tabulation sheets.

If large, complete areas of pavement, sidewalk, or curbs and gutters are being removed, it is best not to use cross-hachuring to identify these areas. Large areas of cross-hachuring actually detract from the plans and often hide important information. It will suffice to show the limits of the removal and identify the area with a General Note on the Quantity Tabulation sheet, or note on the plan sheet “begin pavement

removal/end pavement removal." If there are a number of small, isolated areas of pavement removal, cross-hachuring may be used to identify these areas.

(12) Profiles

See Contract Plan Example 4-22.

Roadway profiles are required only when there is a change in the vertical alignment of the roadway under construction. If only a section of the vertical alignment is changed, a profile is required only for that section.

The station-to-station limits shown on each Profile sheet match exactly the station-to-station limits shown on the corresponding Alignment sheet.

(a) Profile Sheets

The following information is required on Profile sheets:

1. The limits of roadway sections will appear with arrows. These are always to be the topmost entry on the Profile sheets.
2. Super elevation diagrams. These should be shown on a separate sheet if they cause crowding of other required information.
3. The finished profile grade line will be shown as CADD weight 5 solid line style.
4. The datum symbol and information shall be shown on all sheets. North American Vertical Datum (NAVD) 88 is the desirable vertical datum. However, National Geodetic Vertical Datum (NGVD) 29 is acceptable in certain situations. If there is a need to use NGVD 29 datum on a project, the HQ Right of Way Plans Section, Land Survey Support, needs to be contacted for concurrence for use.
5. Show all vertical control, including benchmarks that exist in the area of the alignment profiled on the sheet—both temporary and permanent. Be sure to include all pertinent information associated with vertical control points such as location, offset, stationing, elevation, and so on.
6. Beginning station and elevation (BVC) and ending station and elevation (EVC) of each vertical curve will be shown. Elevations and stations through each vertical curve will be shown on even stations at intervals not shorter than 50 feet but not greater than 200 feet.
7. The station and elevation of the point of intersection of the gradients (VPI) will be shown.
8. Gradients between vertical curves—shown as a percentage, carried out to a sufficient number of places so that the calculation from the elevation at one VPI on the given gradient will give the elevation at the next VPI.
9. Length of each vertical curve.
10. Elevation and station at each break—angle point; AP—in gradient with elevation shown to 0.01 foot.
11. The existing ground line will be shown as a dashed line.
12. Areas of work or quantities will be shown, with arrows, between the station-to-station limits of the work, or at 10 station (1,000') totals if the work extends beyond 10 station totals, or at other logical breaks such as bridges or

group breaks. If these logical breaks are slightly more or less than 1,000 feet apart, it would be appropriate to have a 1,300-foot total or a 700-foot total.

13. Quantities to be shown will be, but will not be limited to roadway excavation; controlled blasting; vertical sand drains; unsuitable foundation excavation; toxic waste excavation; embankment compaction; special backfill; clearing and grubbing; seeding; compost; topsoil; and fertilizing and mulching.
14. The use of the term "embankment" by itself is permitted only when Method A compaction is specified. In this instance, it must be noted that embankment quantities are shown for informational purposes only.
15. Details showing sideslopes for unsuitable foundation excavation and toxic waste excavation shall be shown on the profiles or detailed on separate sheets. The bottom of unsuitable foundation excavation and toxic waste excavation will be shown, but should be shown as a squiggly line to indicate that the actual bottom elevation of the excavation is unknown.

The designer needs to give some thought to the layout of the Profile sheets prior to placing information, because the layout is to be the same on each Profile sheet in the series. All quantity arrows are to be placed in the same position on each sheet to allow quantities to be located easily.

If there is only minor grading on the project, and Profile sheets are not used, 10 station totals, or similar quantity breakdowns, will be shown on a Quantity Tabulation sheet.

(13) Structure Notes

See Contract Plan Examples 4-23 and 4-28.

All of the information shown on the Structure Note sheet and the Drainage Plans and Profiles will meet the requirements contained in the *Hydraulics Manual* and the *Standard Plans for Road, Bridge, and Municipal Construction (Standard Plans)*.

(a) Structure Note sheets are used to tabulate locations, bid items, quantities, and notes pertaining to drainage items, utilities, water lines, and so on.

(b) The Structure Note sheets are to be on 11-inch by17-inch paper. The Structure Note spreadsheet is available through Region Plans Offices or the HQ Project Development Unit. For additional information and instructions for this microcomputer spreadsheet, see the Appendices.

(c) Standard sheets have been prepared with the heading "Structure Notes." A descriptive addition such as "Utilities" or "Irrigation" shall be added after the heading "STRUCTURE NOTES – XXXXXXX XXXXXX" to indicate what type of work is included on the plan sheet. Structure Note sheets are to be placed immediately preceding the plan sheets that contain the features being tabulated.

(d) For those projects involving only a few drainage bid items at a few locations, the information normally provided on Structure Note sheets may be provided on the appropriate plan sheets, in either a tabular form in data boxes, or placed in a convenient location on the sheet, with a leader line used to connect the information with the corresponding drainage feature.

(e) Blank columns shall be provided between listed bid items, and blank rows shall be provided in station listing—about every fifth entry and a space or two between

each reference sheet listed. This procedure allows for the addition of bid items and stationing with ease, even during the addendum phase.

(f) The bid items shall be placed from left to right in the same order in which they appear in the Summary of Quantities Estimate.

Bid items will be identified on the Structure Note Plan sheets exactly (spelling, punctuation, and spacing) as they appear in the WSDOT Standard Item Table.

(g) If there are more bid items to be tabulated than will fit across the top of the sheet, with the appropriate blank spaces, additional tabulation sheets will be required. The station listing will be identical for the continued sheets. Likewise, if there are more station listings than will fit on a single sheet, with the required blank spaces, additional tabulation sheets will be required. The bid items across the top will be identical for the continued sheets.

(h) Each time an item is used in a different location, it will have a separate quantity entry. Related items, however, may be included in a single entry if the station limits are the same. For example, a single entry could include a catch basin, pipe, structure excavation, and riprap.

(i) Each quantity entered on the Structure Note Plan sheet is to be rounded appropriately at the first point of entry. Do not add up the unrounded quantities and then round the total to carry forward to the Summary of Quantities Estimate. (See the information on rounding in 400.06(3).)

(j) The Code column shall contain the structure code number, which is made up of the Plan Reference No. and the number identifying the drainage features on the sheet (for example, D1-1, D1-2, … D1-6, D2-1, D2-2, … D2-26). The numbers shall be listed in ascending order of plan sheets.

(k) Indicate the construction centerline stationing on the Structure Note sheet for cross culverts, and indicate station and offset for each end of longitudinal pipe installations. If a sanitary or storm sewer line stationing is used, the sewer line stationing will be used on the Structure Note sheet, and the plan sheets will indicate the appropriate ties to the construction centerline.

(l) The bid item for storm sewer pipe will be "Schedule ___Storm Sewer Pipe ___ In. Diam." A table indicating the acceptable pipe alternates is included in Section 7-04 of the *Standard Specifications*. There will be times when not all of the pipes shown as acceptable alternates in the table will be acceptable because of conditions on a specific project. When there are pipes not acceptable for a specific project, the designer will include a General Note on the Structure Note sheet identifying the unacceptable pipe type. The *Hydraulics Manual* contains a complete discussion on storm sewer pipes and is to be used for guidance.

(m) When WSDOT does sanitary sewer pipe work, it is usually to extend or replace a system affected by the highway work. The utility or local agency will normally specify the type of pipe, or specify that the pipe extension or replacement be in kind. The system owner's request for pipe type is to be placed in the P&SE portion of the Project File to serve as backup justification. The bid item will be the pipe type requested by the owner, and the General Note on the Structure Note Plan sheet will read either "no acceptable alternates" or "replace in kind," whichever is appropriate.

(n) The General Notes will include information required to complete the data for a particular drainage feature, such as:

- Acceptable or unacceptable pipe alternates for drain, underdrain, and culvert pipes.
- Unacceptable alternates for culvert and storm sewer pipes bid on a schedule basis.
- The appropriate treatment for pipes, except when the treatment is described by the bid item name.
- The corrugation dimension for corrugated steel pipe when a size other than the standard size corrugation is required.
- Specific vertical elongation where elliptical-shaped steel or aluminum pipes are required, whether the elliptical pipe is specified in the bid item or as an alternate.
- Procedures or instructions necessary to complete construction of the drainage feature.
- Required features, such as beveled end sections, safety bars, and other improvements.
- References to applicable details in the Contract Plans. Identify the exact plan sheet using the Plan Reference No. where the detail is located.
- References to applicable Standard Plans, with the full Standard Plan number.
- References to applicable Special Provisions. Identify the Special Provision by the exact name.

The bid item totals on the Structure Note sheets must be consistent with the bid item totals entered in the Summary of Quantities Estimate.

(o) If the quantities for an item appear on other plan sheets in addition to the Structure Note sheets, cross-references shall be made to the sheets where the additional quantities can be found.

(14) Drainage Plan

See Contract Plan Example 4-24.

Each plan sheet will have its own consecutive series of numbers identifying drainage features. The numbers (beginning with number 1 enclosed in circles) will begin in the top left corner of the sheet and progress across and down the sheet. A light, arrowless line will be drawn from the circle to the drainage feature or features. These numbers relate directly back to the Structure Note plan sheets.

When a drainage feature is continued on more than one sheet, the circle will be divided with a horizontal line. The plan sheet reference number on which the drainage feature first appears will be inserted in the upper half and the individual identifying number will be inserted in the lower half. A larger-scale circle may be used if this is done. The circle symbol is reserved for the purpose of identifying drainage features and is not to be used for any other purpose.

If a sanitary or storm sewer line stationing is used, the plan sheets will indicate the appropriate ties to the construction centerline.

Each cross pipe will have a separate code number, which will include any attached drainage structure and any riprap, quarry spalls, or other end treatment being constructed in conjunction with the pipe.

Each run of pipe in a closed sewer system will have a separate code number, which will include the pipe and the drainage structure on the inlet end of the run of pipe.

If multiple pipes are to be placed in the same trench, they may be combined under a single structure code.

The skew angle for all skewed cross pipes shall be indicated on the plan sheets, unless both ends are controlled by station and offset and the stations and offsets appear on the Structure Note sheet.

A roadway ditch that is shown as part of a roadway section does not need to be shown on the Drainage Plans. This roadway ditch is included in the earthwork for Roadway Excavation Incl. Haul. This roadway ditch shall not be assigned a Structure Note number. When a ditch is constructed based on a drainage profile in the Drainage Plans, then this ditch shall be assigned a Structure Note number and the excavation is included in the bid item Ditch Excavation.

(15) Drainage Profiles

See Contract Plan Examples 4-25 and 4-26.

The established scale controls the drainage profiles vertically. There is usually no horizontal scale for the drainage profiles, but it is recommended that distances represented be drawn proportionately. Each profile will be drawn in proportion horizontally for the length of the profile (the space representing 10 feet will appear the same for the length of the profile, and it will appear to be approximately two times a space, representing 5 feet).

The profiles can be made visually easier to follow by using an elongated triangle to represent manholes and an elongated rectangle to represent other drainage structures (such as catch basins or inlets). The distance shown between drainage structures is not the length of pipe but the horizontal distance from center of structure to center of structure. If it happens to appear to be the same as the length of pipe shown in the Structure Note Plan sheet, it is merely coincidental.

Pipe diameters are to be drawn with proportionate scale, so a 12-inch-diameter pipe will be drawn half the size of a 24-inch-diameter pipe.

The drainage profiles are to be drawn as a straight line representation of the path the water will take as it flows through the system, without regard for the actual plan view direction the pipes are running. The designer does not have to break the profile because a system that had been running parallel to the centerline has turned ninety degrees at a catch basin and crossed the roadway.

At locations where two or more pipes bring water to a drainage structure and one pipe carries the water away, there will have to be breaks in the profiles. One profile will continue through the common drainage structure and show the water leaving the structure, while the other profiles will stop or start at the common structure. There will be a leader line drawn between the representations of the common drainage structure with the note “same catch basin,” which is the tie between the profiles and completes each without having to draw the exit pipe a number of times. The information for the common structure will only be shown on one profile, usually the one that shows the outlet pipe.

(a) **Drainage Profile Information**

The following information is to appear on the drainage profiles:

1. Inlet and outlet flow line elevations of pipes—shown below the pipe profile. Inlet and Outlet flow line elevations are those elevations derived from pipe slopes carried to the center of drainage structure.
2. Outflow treatments such as riprap, quarry spalls, and, if the ditch is other than a roadway or median ditch, ditch profiles.
3. Debris deflectors, standpipes, and headwalls.
4. The type of drainage structure and station and offset location of the structure—shown above the structure.
5. The rim elevation of manholes, catch basins, inlets, or other drainage structures—shown above the structure.
6. The horizontal distance between adjacent drainage structures from center of structure to center of structure.
7. The size of pipe in each run—you do not have to include the type of pipe.
8. The pipe slope—carried out to sufficient decimal places so that when the calculation is made from the indicated inlet flow line, on the given grade, for the given distance, the result will be the outlet flow line indicated.
9. Finished ground line above the pipe.
10. Original ground line if pipes will be placed prior to embankment construction or if original ground differs from the finished ground line.

(16) Utility Plan

See Contract Plan Example 4-29.

When the contractor is to work on the existing utilities as part of the contract, plan sheets for utility structure notes, plans, and details will be required. These shall follow the same general guidelines as specified for Drainage Structure Notes/Plans/Details.

To locate utilities in areas where only a few utilities exist, consider using tables with stations and offsets in lieu of creating additional plan sheets.

RCW 19.122.040 requires WSDOT to identify and locate known underground utilities in our contracts. The designer should make every effort to also identify and locate aboveground utilities.

RCW 19.122.040 "Underground facilities identified in bid or contract – Excavator's duty of reasonable care – Liability for damages – Attorneys' fees," reads as follows:

> (1) Project owners shall indicate in bid or contract documents the existence of underground facilities known by the project owner to be located within the proposed area of excavation. The following shall be deemed changed or differing site conditions:
>
> (a) An underground facility not identified as required by this chapter or other provision of law; and
>
> (b) An underground facility not located, as required by this chapter or other provision of law, by the project owner or excavator if the project owner or excavator is also a utility.

(2) An excavator shall use reasonable care to avoid damaging underground facilities. An excavator shall:

(a) Determine the precise location of underground facilities which have been marked;

(b) Plan the excavation to avoid damage to or minimize interference with underground facilities in and near the excavation area; and

(c) Provide such support for underground facilities in and near the construction area, including during backfill operations, as may be reasonably necessary for the protection of such facilities.

(3) If an underground facility is damaged and such damage is the consequence of the failure to fulfill an obligation under this chapter, the party failing to perform that obligation shall be liable for any damages. Any clause in an excavation contract which attempts to allocate liability, or requires indemnification to shift the economic consequences of liability, different from the provisions of this chapter is against public policy and unenforceable. Nothing in this chapter prevents the parties to an excavation contract from contracting with respect to the allocation of risk for changed or differing site conditions.

(4) In any action brought under this section, the prevailing party is entitled to reasonable attorneys' fees.

[1984 c 144 § 4.]

Identified utilities are to be shown in the bid or contract documents as stated in the RCW. The Site Preparation Plan series is where they would normally be shown (see 400.06(11), Site Preparation). If the project is in an area with many utilities, as well as many other topographical features, it may be necessary to separate the utilities on a separate series of plans following the Site Preparation Plan series. The best available information as to the location of underground and overhead utilities is to be used. Contract Plan Example 4-19 shows how utilities are typically shown on a plan sheet.

Do not forget to include WSDOT utilities, such as traffic signal, illumination, and ITS conduits and fixtures.

The required amount of detail related to utility location is directly proportional to the amount of underground work involved in the contract and the proximity to the utility. A simple paver should require less utility detail than a project with excavation at or near a 24-inch natural gas line or a 96-inch sewer line.

(17) Contour Grading Plan

Contour Grading Plans provide finished ground contours. These plans require the Region Landscape Architect's stamp (or the HQ Landscape Architect's stamp for regions without a Landscape Architect), regardless of whether they are prepared by the design team or the landscape section. (See the *Design Manual* for more information.)

(18) Wetlands, Mitigation Sites, and Detention/Retention Site Plans

(a) Wetlands

All wetlands, whether inside the right of way or not, that **could be** impacted by the construction work shall be shown on the construction plans, using standard symbols found in the *Electronic Engineering Data Standards* manual.

Wetlands may be either delineated or inventoried. Delineated wetlands will, in most cases, have buffer zones associated with them, which must also be shown in the plans. The buffer zone is established by the local jurisdiction and may not always be identified on the permit. For each wetland identified within a project area, the designer will have to check with the Region Environmental Office to get the buffer zone information. Inventoried wetlands have been identified by a visual survey of the area and the required buffer zones are included in the inventoried boundaries.

The wetland and buffer zone shown in the plans is to represent the area, but does not have to be plotted point for point from the delineation information in the permit. The station and offset information required to delineate the site is not to be included in the Contract Plans. When the wetland is being surveyed, the information is to be taken directly from the permit.

The wetlands are to be shown on the Vicinity Map and all other plan sheets, such as those showing cut/fill lines, drainage, or other features that could impact them.

(b) Mitigation Sites

A wetland mitigation site is a wetland area that has been or is being created, restored, enhanced, or preserved to compensate for wetlands impacted by construction.

All wetland mitigation sites shall be shown on the construction plans and identified as either “existing” or “to be constructed.” A mitigation site, whether existing or to be constructed, is always identified as a mitigation site on plan sheets. Mitigation sites do not get reclassified as a wetland at a future time.

If a contractor is allowed to work within an existing wetland, wetland buffer zone, or, in rare circumstances, a mitigation site, the allowable work area shall be delineated by the cut and fill line. The contractor shall possess a permit identifying each wetland in which work is allowed.

(c) Detention/Retention Sites

All facilities related to the detention, retention, and treatment, filtration, or drainage of stormwater or surface water, whether existing or to be constructed, shall be shown on the construction plans and labeled as Stormwater Treatment Areas. It is important to identify stormwater treatment areas so they will not be misconstrued to be wetlands or mitigation areas in the future.

Designer's should contact the HQ Engineering Records and Imaging Office with the Township and Range, Section, State Route (SR) and Mileposts (MP) of their project, to obtain copies of the Sundry Site Plans that show any existing mitigation sites that are on record.

(19) Paving/Pavement Marking Plan

See Contract Plan Examples 4-27, 4-30, 4-31, and 4-36.

Paving and pavement marking information will normally be combined on a single series of plans.

If the project requires the paving information to be separate from the pavement marking information, the Paving Plan will show the total roadway and shoulder widths described by the roadway sections, not lane widths. The Pavement Marking Plans will show the lane configuration and widths. The information is not to be repeated on both series of plans.

The Paving/Pavement Marking Plan series may be necessary when the work cannot be shown adequately on the roadway sections. If the roadway sections adequately describe most of the project, only the areas requiring more detailed or specific information need be shown in Paving/Pavement Marking Plans.

Pavement marking will conform to the requirements shown in the *Design Manual* and the pavement marking applications shown in the *Standard Plans*. Pavement marking layout information is not required in the plans if the required pavement markings are as shown in the *Standard Plans*. Pavement marking quantities are to be tabulated on Quantity Tabulation sheets if not accurately shown elsewhere.

When Paving/Pavement Marking Plans are included, they will show all lane and shoulder widths, information on pavement taper lengths and widths, widening for guardrail, and the locations of concrete barrier, guardrail, impact attenuators, and traffic islands. The various areas and types of pavement marking will be identified by General Notes in the Quantity Tabulation sheets; if there is only minor pavement marking, the beginning and ending stations could be shown in the plan for each type in the area.

The only existing information that will appear on the Paving/Pavement Marking Plans will be the existing roadways and approaches beyond the point where the new construction begins or ends to show the tie between the new and existing. The "old" roadway and lane lines through the construction area are not to be shown.

If there is only minor drainage, signing, or illumination work on the project, it can be shown on the Paving/Pavement Marking Plans, provided it does not compromise the clarity of the paving and pavement marking information being shown.

Paving or pavement marking details showing the layout of traffic islands or other features (such as curb ramps) may need to be drawn at a larger scale on separate detail sheets to provide sufficient information or required dimensioning. These details will follow immediately after the Paving/Pavement Marking Plan series.

(20) Plan Detail Sheet

Details specific to the project being developed will have to be provided by the designer to ensure the contractor has a clear picture of the work to be performed.

The plan details are to be organized on plan sheets so they are grouped according to plan series. The detail sheets will then be placed as the last set of plans in the plan series. For example, all of the drainage details will be grouped on the appropriate number of sheets and will become the last sheets in the Drainage Plan series—normally following the drainage profiles.

It is important that details be complete, meaningful, and necessary. It is also important that details be drawn at a scale that will clearly show the information when reduced and placed on the 11-inch by 17-inch plan sheets.

Plan details are not to be a redrawn Standard Plan. Many times, however, it is necessary to draw details showing a project-specific modification to a Standard Plan. In these instances, sufficient detail is to be provided to indicate the modification, but all of the information on the Standard Plan that is still applicable is not to be redrawn. Instead, a note stating "FOR INFORMATION NOT SHOWN, SEE STANDARD PLAN X-XX" is to be included on the detail.

Details that are not associated with a Standard Plan must be complete, because the contractor is only obligated to provide what is shown on the detail.

The *Electronic Engineering Data Standards* manual contains a number of generic or standard details found in the CADD system. Many of these details can be used as is, or they may be modified to fit requirements for a specific application. Use of these details can save both the designer and the CADD operator considerable time over developing and inputting details from scratch.

(21) Minor Structures

Projects with quantities for minor structures, such as nonstructural retaining walls (see Section 8-24 of the *Standard Specifications*) or other like items of work, shall have these quantities shown in the plans in one of the following methods:

- Quantities shall be shown on Quantity Tabulation sheet(s).
- Quantities shall be shown in tabular form (in data boxes) on the individual plan sheet(s).

(22) Illumination Plan

See Contract Plan Example 4-37 and 4-38.

The design of illumination systems will conform to guidelines in the *Design Manual*.

If the illumination work is minor adjustments to an existing system or the installation of a small system (one or two luminaires) at an intersection, it can often be shown on another series of plans.

(a) Illumination Plan Information

The following information is required for Illumination Plans:

1. The location of light standards: new and existing.
2. The light standard number for new luminaires.
3. The location of the power source: whether new or existing.
4. The layout of the conduit and electrical circuitry.
5. The mounting height for new luminaires: for existing if being relocated.
6. The mast arm length for new luminaires: for existing if being relocated.
7. Base requirements, fixed or slip, for new luminaires: for existing if being relocated.
8. Conduit size and fill for new installation: for existing affected by, or affecting, the project.

9. Service cabinet requirements for new: or modifications to existing.
10. Junction box locations and types for new: for existing affected by, or affecting, the project.
11. Luminaire light source, distribution, and voltage for new luminaires.
12. All other features unique to the specific project.

(b) **Stationing and Offsets**

Stationing and offsets, shown in the foundation schedule for light standard locations, are to be reasonably accurate to ensure the design light levels are achieved.

(23) Traffic Signal Plan

Traffic Signal Plans are normally provided by either the Region Traffic Office or the HQ Traffic Office, and the designer simply incorporates them into the project. The Traffic Signal Plans will follow the guidelines in the *Design Manual*.

(24) Intelligent Transportation System Plan

See Contract Plan Example 4-39.

The Region Traffic Office normally provides Intelligent Transportation Systems (ITS) Plans, and the designer simply incorporates them into the project. ITS Plans will follow the guidelines in the *Design Manual*.

Even though the designer is not responsible for the design of the Intelligent Transportation System, the designer is responsible for providing the appropriate base maps to the HQ Traffic Office. The base map information provided to the traffic designer will show the locations of all new and existing features, such as utilities, drainage pipes, and structures, so that these features can be taken into account during the initial design. It is also the designers' responsibility to keep the traffic designer aware of all design revisions made to the plans from the time the initial layout was given to the traffic designer.

(25) Sign Specification Plan Sheet

See Contract Plan Examples 4-40, 4-41, and 4-42.

Sign Specification Plan sheets are to be prepared on 11-inch by 17-inch paper sheets plotted from CADD or an Excel program.

A separate Sign Specification Plan sheet will normally be prepared for the installation of new signs, the removal of signs, and the relocation of signs. If the signing work is minor, it is permissible to combine the different types of work on a single sheet, but there should be a distinct, identifiable section of the sheet for each type of work presented.

There will be a separate sign-numbering system for each of the three types of signing work, and each will be continuous from the beginning of the project to the end.

The Sign Specification Plan sheets are to be completely filled out.

Remember that the material stock used for the signs comes in 48-inch by 96-inch sheets, so sign sizes need to be adjusted to make the most efficient use of the stock material. The following guidelines should be used:

- For signs having a horizontal dimension of 48 inches or less, all dimensions shall be specified in inches.
- For signs having a horizontal dimension of greater than 48 inches, all dimensions shall be specified in feet and inches.

Wood posts can be called out as 4 x 4 (the common name for a 3-1/2" x 3-1/2" piece of lumber), 4 x 6, and so on, as long as there is no reference to inches.

When a sign installation requires multiple steel posts, the designer will have to specify which base type is to be used (see the *Standard Plans* for each multiple-post installation).

(26) Signing Plan

See Contract Plan Examples 4-43 and 4-44.

The Signing Plans will follow the guidelines in the *Design Manual*.

Signing will always be shown in a plan view; however, the designer needs to assess the need for the Signing Plan series. In many cases, there are not sufficient signs to require a separate series of plans. In these cases the signing information can be combined with another series, such as the Paving/Pavement Marking Plan series, without affecting the clarity of the overall plan.

Signing Plans do not normally require a great deal of roadway detail. The centerline and edge of the roadway is normally all that is required for two-lane highways. For multilane highways, additional detail and roadway information may be required.

For region-wide signing projects, where an extensive area is covered, a smaller scale (even a strip map) can be used for directional sign placements. However, even in these instances, larger-scale details may be required to show sign installations at intersections and other areas where there are numerous signs being installed in a small area.

There is never to be a light standard within 50 feet of the front of an overhead sign installation.

Signs will be located in the plans and identified using the plan sign number. For new installations, the plan sign number will be enclosed in an oval. The plan sign number for sign removals will be enclosed in a rectangle and "R-" will preceded the number. Sign relocations will show both the original and relocated locations of the sign and the plan sign number will be enclosed in a square. There will be a leader line from the plan sign number to the sign location. Sign relocations will have two leader lines: a dashed line from the plan sign number to the original location and a solid line from the plan sign number to the relocated location.

The Signing Plans will show the following:

- Construction centerlines—all that is required for signing, such as destination and speed limit.
- Basic roadway layout in areas where detail is required, such as intersections with considerable signing.
- Sign locations.
- Small-scale layout of directional and special signs, showing required details, such as where upper- and lower-case lettering is to be used, location of directional arrows, and so on. Details may be placed on a separate sheet to avoid overcrowding of the plan.

- Small-scale layout of standard control signs may be shown in the plans. This can be very helpful to both the contractor and the inspector.
- Plan sign number with leader line pointing to sign location.
- WSDOT Sign Fabrication code number adjacent to plan sign number.
- Signs to be installed.
- Signs to be removed.
- Signs to be relocated. Show the sign locations for both the original, using a dashed leader line, and the relocated, using a solid leader line.
- Power source for all illuminated signs. If the source is coincidental to an illumination or traffic signal system and shown on those plans, a construction note referencing the sheet where the source is identified will suffice.

(27) Signing Details

When overhead signs are being installed on a sign bridge or cantilever structure, the Sign Specification and/or Sign Detail needs to show the following information:

- Simple drawing of the new structure and signs
- Distance between signs
- Distance between signs and end supports or posts
- Location of overhead signs in relation to lanes
- Sign light spacing
- Maintenance walkway position
- Other data called for in the plans

(28) Bridge Plan

Bridge Plans are prepared by the HQ Bridge and Structures Office. The designer may be required to provide field information for use by the HQ Bridge and Structures Office during the design. Required data/guidelines are shown in the *Design Manual*.

Most projects with bridge construction will have items of work required because of the bridge work, but are indicated on the Bridge Plans as "not included in bridge quantities." The designer is to provide the required PS&E information for these items.

Following are some of the items typically "not included in bridge quantities":

- Drains
- Gravel backfill for drain
- Gravel backfill for wall
- Underdrain pipe behind or around abutments or walls
- Drain pipe in embankments at bridge ends
- Utility conduits and anchorage
- Slope protection

- Concrete barrier
- Guardrail connections

The bridge designer will provide the designer with a list of items that are not included in the bridge work.

(29) Traffic Control Plan

See Contract Plan Examples 4-45 through 4-54.

As required in the highway administration rules and regulations (23 CFR 630 Subpart J), every project shall have a Temporary Traffic Control Plan (TTC). "Traffic Control Plans" is the common name for typical, site-specific, or project-specific TTC Plans. Primary consideration should be given to public safety, worker safety, and maintaining mobility for vehicles, bicyclists, and pedestrians (including pedestrians with disabilities) through or around a work zone. (See the *Design Manual* for further guidance.)

The designer may consider typical Traffic Control Plans found in the *Standard Plans*, *Work Zone Traffic Control Guidelines*, or the MUTCD, Part 6, as a starting point for developing contract Traffic Control Plans. The Plan Sheet Library on the public design website includes many typical Traffic Control Plans. On smaller projects, such as a two-lane paver, the designer may consider the use of an item for contractor-prepared Traffic Control Plans in lieu of providing plans in the contract.

It is important for the designer of the Traffic Control Plans to remember that when the contractor uses the traffic control layouts shown in the plans, WSDOT is in a high-liability position should anything go wrong when the traffic control called for is in place. Because of the high liability, this portion of the plan needs to be developed with a great deal of thought, by someone with an understanding of the project as well as an understanding of traffic control requirements.

The size and color of all traffic control signs are to be shown on the plan. Warning (W series) signs are required by WSDOT policy to be a minimum of 48 inches by 48 inches, but this information still has to be on the plan. Traffic control signing is laid out in respect to the distance from the work area. These distances, from the work area and between signs, are to be shown as plus/minus (+/-) distances. For example, if the required spacing between signs is 1,500 feet, it will appear on the plan sheet as 1,500'+/-. This does not mean the sign can be put any place the contractor chooses within the 1,500-foot range; it means the sign is to be placed at 1,500 feet unless there is an engineering reason to move it slightly. (See "Work Zone Safety and Mobility" in the *Design Manual* for additional items to be included in these plans.)

Tables have been developed for sign spacing, taper lengths, pavement marking, device spacing, and buffer zone data that establish criteria for a variety of speeds. It is recommended that these tables be utilized for consistency and to eliminate the possibility of errors in calculations.

The guidance in the *Standard Specifications* allows the contractor to develop Traffic Control Plans or revise those furnished in the contract (see "Traffic Control Plans" in the *Standard Specifications*).

Traffic Control Plans may contain certain required items, not supplied by WSDOT, for which bid items will be provided in the project. The Traffic Control Plans shall be reviewed to ensure all items required for traffic control and bidding are shown as either separate bid items or included in bid items for a lump sum bid—if approved by the proper delegated authority.

When Traffic Control Plans are prepared by someone other than the primary project designer, ensure they are familiar with all the project elements so they will produce compatible plans. The primary designer should keep the Traffic Control Plan designer aware of any design changes and thoroughly review the Traffic Control Plans to make sure they address all the project's work zone impacts.

400.07 Plan Examples

In order to help illustrate the intent of WSDOT contract plan sheets, examples of typical plan sheets and electronic data files is available. These examples are strictly for informational purposes. Final approval of plan sheets will be in accordance with this manual and the Region Plans Review Office.

(1) Example Plan Sheets

This section provides examples of typical PS&E plan sheets showing general plan requirements.

(2) Example Projects

Additional plan examples may be viewed from the following public WSDOT Computer Aided Engineering (CAE) website under "Consultant Resources":
http://www.wsdot.wa.gov/design/cae

These plans represent an information-only example of a complete project plan set. This project shows the relationship between "Base" information, plan view sheets, section view sheets, profile view sheets, and other spreadsheet-based sheets per the *Plans Preparation Manual* and the *Electronic Engineering Data Standards* (EEDS) manual.

Plans may be viewed in PDF format from the website, or downloaded in native MicroStation (dgn) and Microsoft Excel (xls) file format compressed by WinZIP (zip).

INDEX

SHEET NO.	PLAN REFERENCE NO.	TITLE
1 - 2	IN1 - IN2	INDEX
3	VP1	VICINITY MAP
-	SQ	SUMMARY OF QUANTITIES
-	RC	RECLAMATION PLAN
4 - 17	RS1 - RS14	ROADWAY SECTION
-	GS	GRADING SECTION
-	SU	STAGING PLAN
18 - 25	AL1 - AL8	ALIGNMENT AND RIGHT OF WAY
26 - 27	QTSP1 - QTSP2	QUANTITY TABULATION - SITE PREPARATION
28 - 35	SP1 - SP8	SITE PREPARATION PLAN
-	EU	EXISTING UTILITIES PLAN
36 - 44	RP1 - RP9	ROADWAY PROFILE
-	QTEC	QUANTITY TABULATION - TESC
45 - 52	EC1 - EC8	TESC PLAN
-	EC	TESC DETAIL
53 - 62	NTDR1 - NTDT10	STRUCTURE NOTES - DRAINAGE
63 - 70	DR1 - DR8	DRAINAGE PLAN
71 - 86	DP1 - DP16	DRAINAGE PROFILES
-	DR	DRAINAGE DETAIL
87 - 92	NTUT1 - NTUT6	STRUCTURE NOTES - UTILITIES
93 - 96	UT3, UT6 - UT8	UTILITY PLAN
-	UT	UTILITY DETAIL
-	NTIR	STRUCTURE NOTES - IRRIGATION

INDEX (CONTINUED)

SHEET NO.	PLAN REFERENCE NO.	TITLE
-	IR	IRRIGATION PLAN
-	IR	IRRIGATION DETAIL
-	LS	LANDSCAPE PLAN
-	CN	INTERCHANGE CONTOUR PLAN
97 - 106	PV1 - PV10	PAVING PLAN
-	PV	PAVING DETAIL
107 - 114	QTPM1 - QTPM8	QUANTITY TABULATION - PAVEMENT MARKING
115 - 124	PM1 - PM10	PAVEMENT MARKING PLAN
-	PM	PAVEMENT MARKING DETAIL
-	ST	MINOR STRUCTURES
125 - 132	IL1 - IL8	ILLUMINATION PLAN
-	IL9	ILLUMINATION SCHEDULE
-	IL9	ILLUMINATION DETAIL
-	SG	
-	SG	
133 - 134	TS3, TS7	
-	TS	

Notes to the Designers:

1) For any contract that consist of 30 or more plan sheets, an index is required. Also any contract with multiple volumes will have a complete index in each volume.

2) The federal aid number is required on the first sheet of the plans, whether it is the index or vicinity map.

3) Plan reference numbers shall not be repeated.

4) The limit of plan sheets per volume is 225 pages. Break volumes at the end of a plan set.

PLAN REFERENCE NO.

SHEET OF SHEETS

NOTE: ALL SHEET REFERENCES, FIRST NOS. OF STRUCTURE CODE DESIGNATIONS AND MATCH LINE SHEET REFERENCES, ETC., THROUGHOUT THE PLANS, REFER TO THE ENTRY IN THE PLAN REFERENCE NUMBER BOX.

FILE NAME	C:\AAWork\Manuals\PPM\2012\Div 4 Example files\PPM_Div4_PS_IN.dgn				REGION NO.	STATE	FED.AID PROJ.NO.
TIME	3:16:47 PM				10	WASH	
DATE	9/5/2012				JOB NUMBER		NH-0000(000)
PLOTTED BY	KerrT				00Z000		
DESIGNED BY	DESIGNER				CONTRACT NO.		LOCATION NO.
ENTERED BY	CAD OPERATOR						XL-1234
CHECKED BY	TEAM LEAD						
PROJ. ENGR.	PROJECT ENGINEER						
REGIONAL ADM.	REGIONAL ADM.	REVISION	DATE	BY			

P.E. STAMP BOX — DATE

P.E. STAMP BOX — DATE

Washington State Department of Transportation

EXAMPLE 4-1
I-5 AND LABREE RD INTERCHANGE
SAMPLE PROJECT

INDEX

Plot 1

PLAN REF. NO. IN1

SHEET OF SHEETS

INDEX

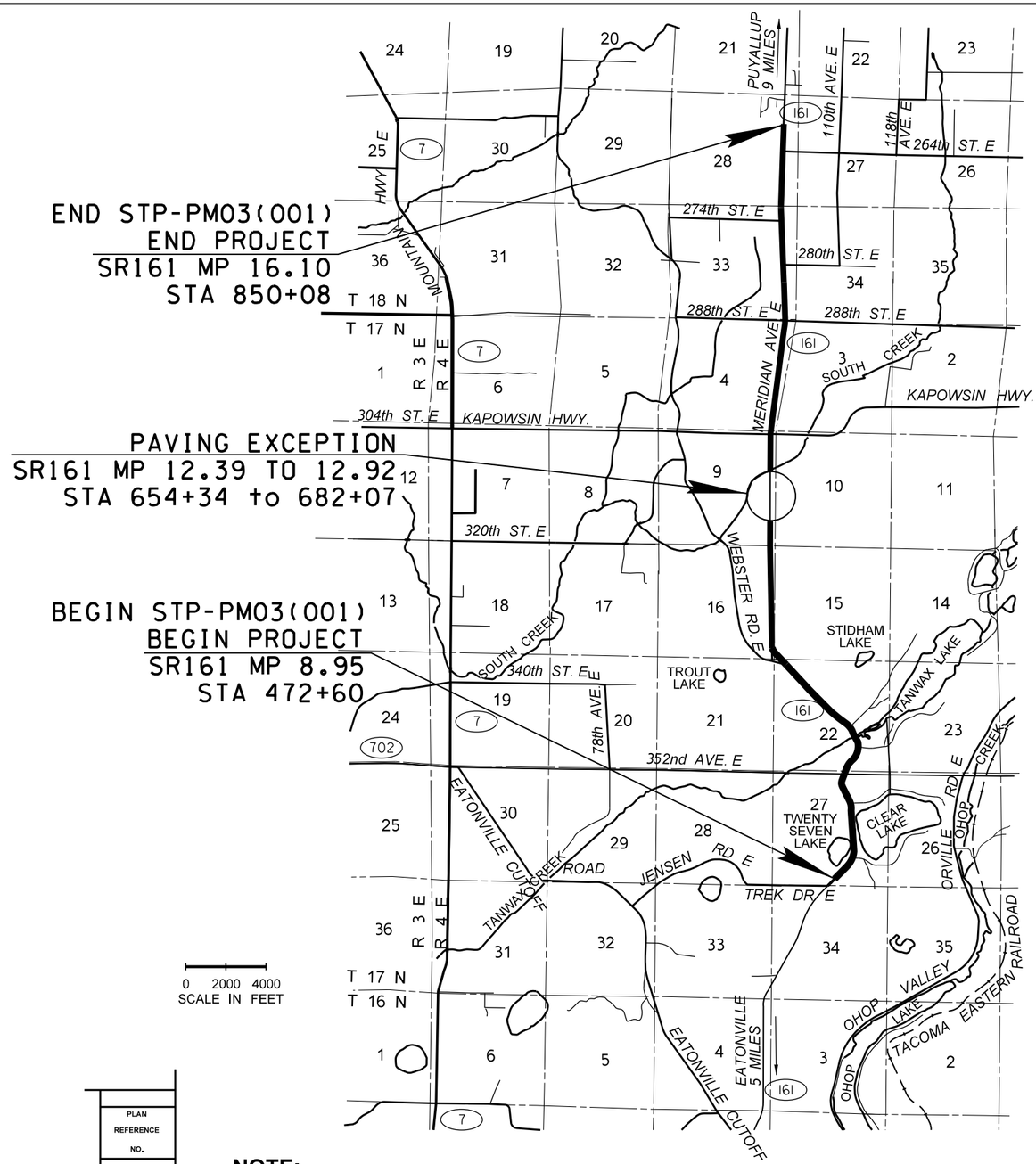
Notes to the Designer:

1) This is an example of combining the index and vicinity map on a small project.

2) For any contract that consists of 30 or more plan sheets, an index is required.

3) The Federal Aid Number is required on the first sheet of the plans, whether it is the index or vicinity map.

4) Plan reference nos. shall not be repeated.



PLAN REFERENCE NO.
SHEET OF SHEETS

NOTE:
ALL SHEET REFERENCES, FIRST NOS. OF STRUCTURE CODE DESIGNATIONS AND MATCH LINE SHEET REFERENCES, ETC., THROUGHOUT THE PLANS, REFER TO THE ENTRY IN THE PLAN REFERENCE NUMBER BOX.

FILE NAME	C:\AAWork\Manuals\PPM\2012\Div 4 Example files\PPM_Div_4_Example_1-40.dgn				REGION NO. 10	STATE WASH	FED.AID PROJ.NO. NH-0000(000)
TIME	3:28:57 PM						
DATE	9/5/2012						
PLOTTED BY	KerrT						
DESIGNED BY	DESIGNER				JOB NUMBER 00Z000		
ENTERED BY	CAD OPERATOR						
CHECKED BY	TEAM LEADER				CONTRACT NO.		LOCATION NO. XL-1234
PROJ. ENGR.	PROJECT ENGINEER						
REGIONAL ADM.	REGIONAL ADM.	REVISION	DATE	BY			

P.E. STAMP BOX — DATE

P.E. STAMP BOX — DATE

Washington State Department of Transportation

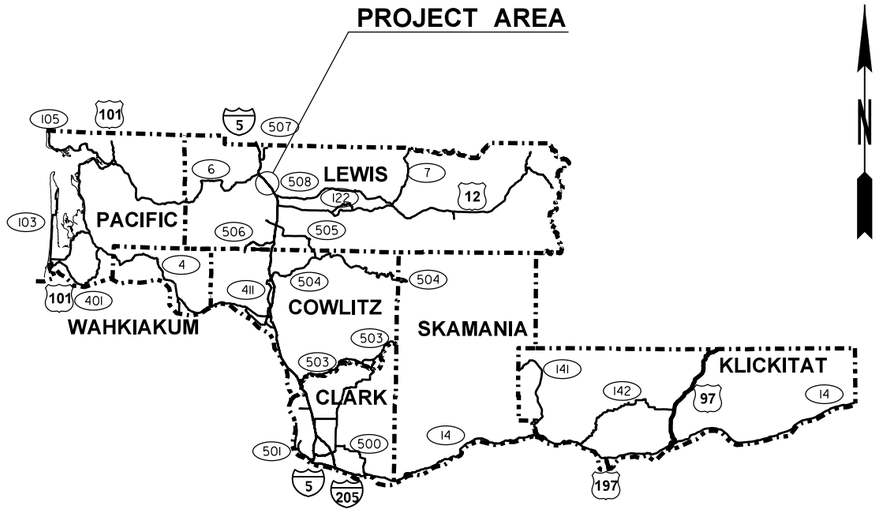
EXAMPLE 4-2

INDEX / VICINITY MAP

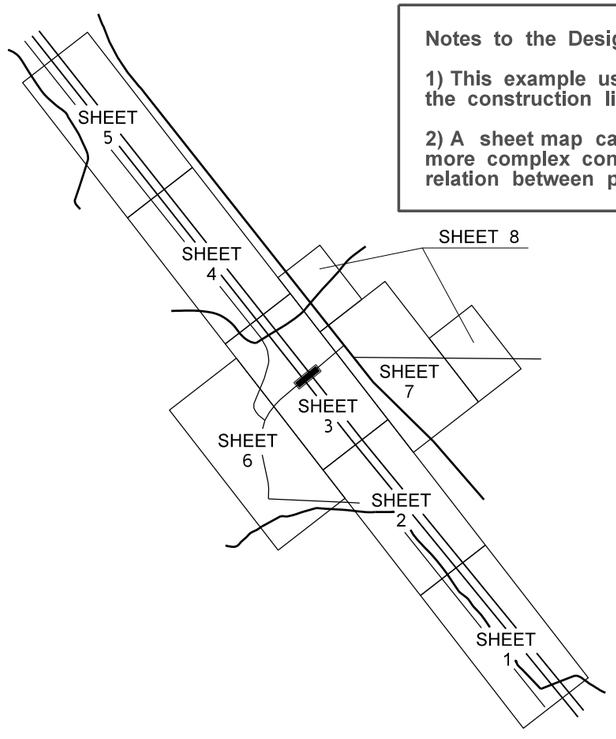
Plot 2

VM1

SHEET OF SHEETS



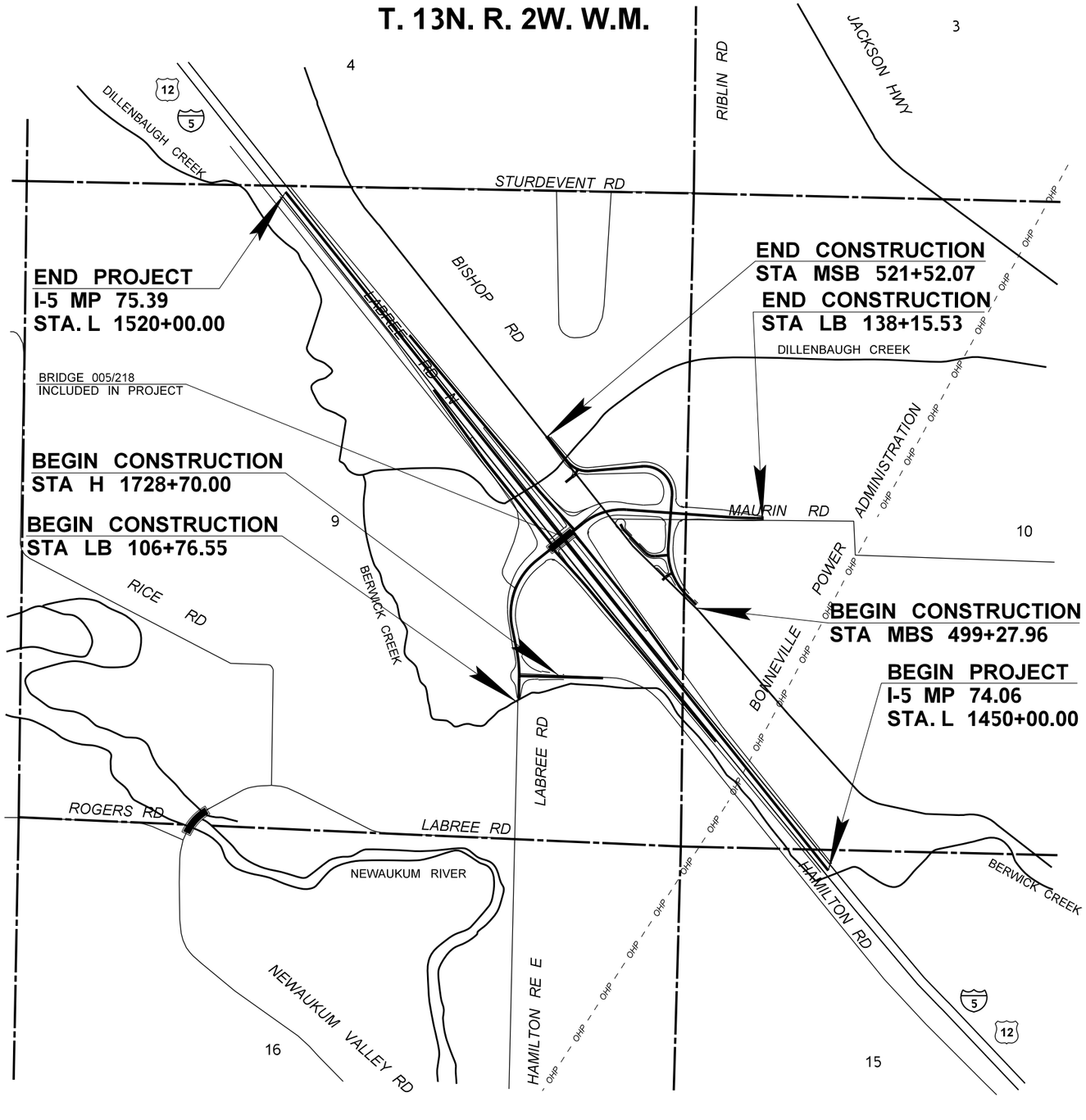
SOUTHWEST REGION



Notes to the Designer:

1) This example uses a blow-up to show the construction limits.

2) A sheet map can be very useful on more complex contract to identify the relation between plan sheet locations.



FILE NAME	C:\AAWork\Manuals\PPM\2012\Div 4 Example files\PPM_Div4_PS_VM.dgn				REGION NO. / STATE	FED.AID PROJ.NO.	Plot 1
TIME	3:07:44 PM				10 / WASH	NH-0000(000)	PLAN REF NO VM1
DATE	9/5/2012				JOB NUMBER 00Z000		
PLOTTED BY	KerrT				CONTRACT NO.	LOCATION NO. SP1234	SHEET OF SHEETS
DESIGNED BY	DESIGNER						
ENTERED BY	CAD OPERATOR						
CHECKED BY	TEAM LEAD						
PROJ. ENGR.	PROJECT ENGINEER						
REGIONAL ADM.	REGIONAL ADM.	REVISION	DATE	BY			

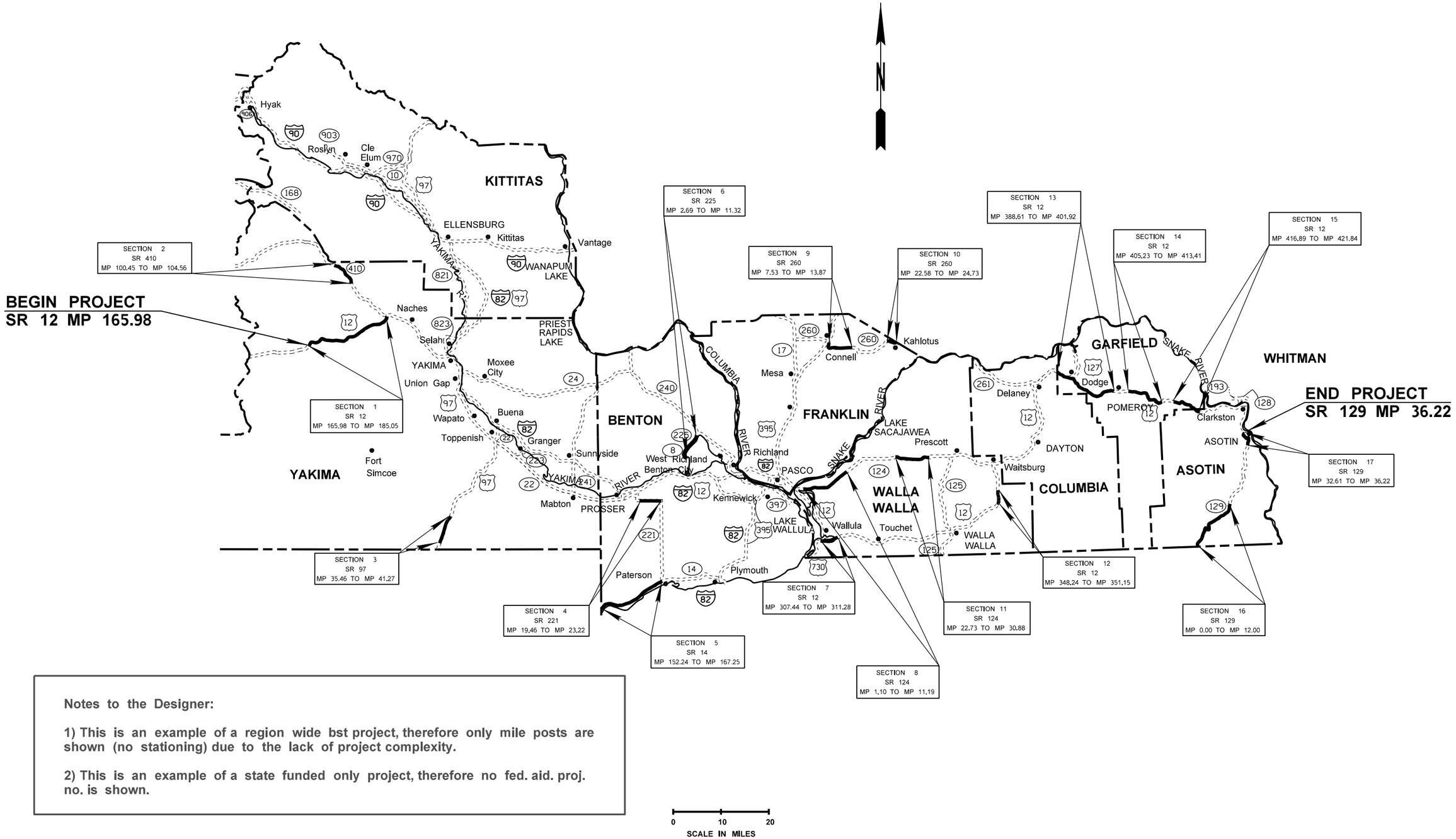
P.E. STAMP BOX — DATE

P.E. STAMP BOX — DATE

Washington State Department of Transportation

EXAMPLE 4-3
I-5 AND LABREE RD INTERCHANGE
EXAMPLE PROJECT

VICINITY MAP



Notes to the Designer:

1) This is an example of a region wide bst project, therefore only mile posts are shown (no stationing) due to the lack of project complexity.

2) This is an example of a state funded only project, therefore no fed. aid. proj. no. is shown.

FILE NAME	C:\AAWork\Manuals\PPM\2012\Div 4 Example files\PPM_Div_4_Example_1-40.dgn				REGION NO. 10	STATE WASH	FED.AID PROJ.NO. NH-0000(000)	Plot 4
TIME	3:29:05 PM							VM1
DATE	9/5/2012				JOB NUMBER 00Z000			SHEET OF SHEETS
PLOTTED BY	KerrT							
DESIGNED BY	DESIGNER				CONTRACT NO.		LOCATION NO. XL-1234	
ENTERED BY	CAD OPERATOR							
CHECKED BY	TEAM LEADER							
PROJ. ENGR.	PROJECT ENGINEER							
REGIONAL ADM.	REGIONAL ADM.	REVISION	DATE	BY				

P.E. STAMP BOX — DATE

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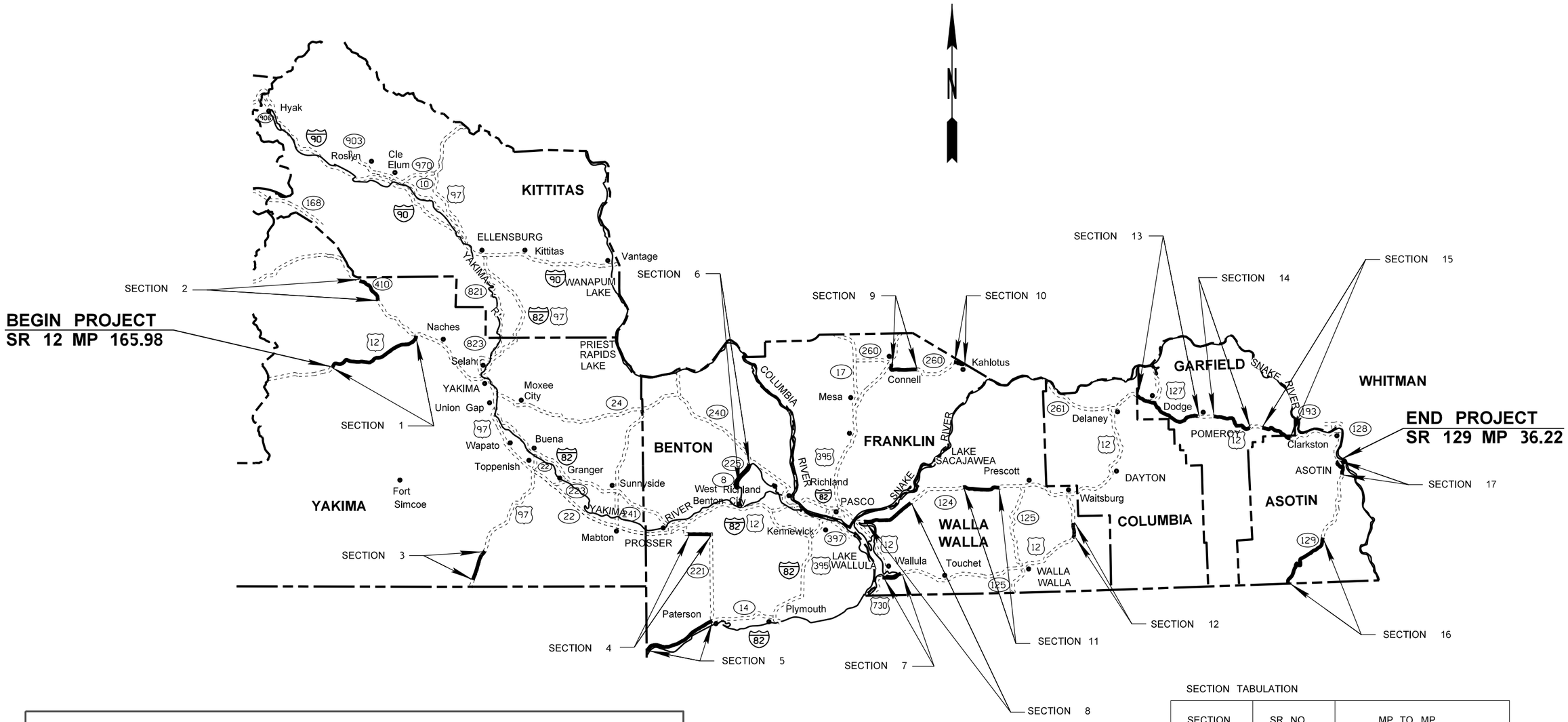
Washington State Department of Transportation

EXAMPLE 4-4

VICINITY MAP



0 10 20
SCALE IN MILES

Notes to the Designer:

1) This is an alternative method of example 4-3, the same region wide bst project. section identification is in tabular format (see table).

2) This is an example of a state funded only project, therefore no Fed. Aid. Proj. No. is shown.

SECTION TABULATION

SECTION	SR NO.	MP TO MP
1	12	169.98 TO 185.05
2	410	100.45 TO 104.56
3	97	35.46 TO 41.27
4	221	19.46 TO 23.22
5	14	152.24 TO 167.25
6	225	2.69 TO 11.32
7	12	307.44 TO 311.28
8	124	1.10 TO 11.19
9	260	7.53 TO 13.87
10	260	22.58 TO 24.73
11	124	22.73 TO 30.88
12	12	348.24 TO 351.15
13	12	388.61 TO 401.92
14	12	405.23 TO 413.41
15	12	416.89 TO 421.84
16	129	0.00 TO 12.00
17	129	32.61 TO 36.22

FILE NAME	C:\AAWork\Manuals\PPM\2012\Div 4 Example files\PPM_Div_4_Example_1-40.dgn				REGION NO. 10	STATE WASH	FED.AID PROJ.NO. NH-0000(000)
TIME	3:29:12 PM				JOB NUMBER 00Z000		
DATE	9/5/2012				CONTRACT NO.		LOCATION NO. XL-1234
PLOTTED BY	KerrT						
DESIGNED BY	DESIGNER						
ENTERED BY	CAD OPERATOR						
CHECKED BY	TEAM LEADER						
PROJ. ENGR.	PROJECT ENGINEER						
REGIONAL ADM.	REGIONAL ADM.	REVISION	DATE	BY			

P.E. STAMP BOX — DATE

P.E. STAMP BOX — DATE

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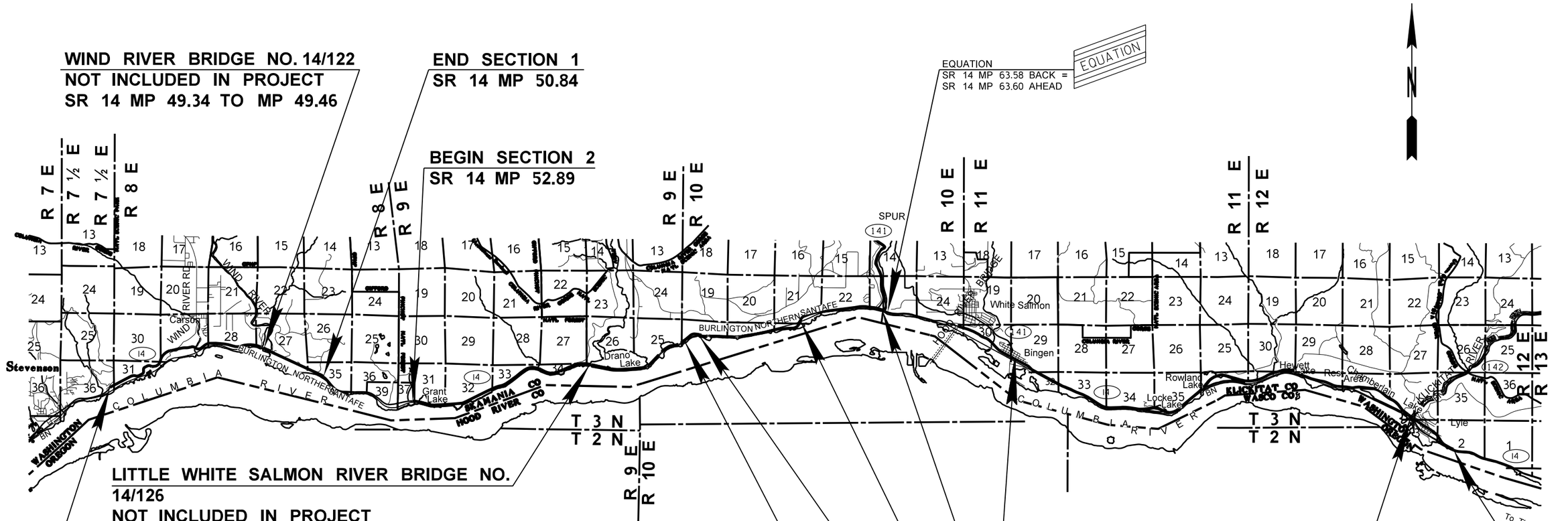
EXAMPLE 4-5

VICINITY MAP

Plot 5

VM1

SHEET OF SHEETS



WIND RIVER BRIDGE NO. 14/122
NOT INCLUDED IN PROJECT
SR 14 MP 49.34 TO MP 49.46

END SECTION 1
SR 14 MP 50.84

BEGIN SECTION 2
SR 14 MP 52.89

EQUATION
SR 14 MP 63.58 BACK =
SR 14 MP 63.60 AHEAD

LITTLE WHITE SALMON RIVER BRIDGE NO. 14/126
NOT INCLUDED IN PROJECT
SR 14 MP 56.87 TO MP 56.96

KLICKITAT RIVER BRIDGE NO. 14/212
INCLUDED IN PROJECT
SR 14 MP 75.76 TO MP 75.81

BEGIN STP-PM00(001)
BEGIN PROJECT
BEGIN SECTION 1
SR 14 MP 45.80

GULCH BRIDGE NO. 14/131
INCLUDED IN PROJECT
SR 14 MP 59.03 TO MP 59.07

BN RR/Xing BRIDGE NO. 14/132
INCLUDED IN PROJECT
SR 14 MP 59.44 TO MP 59.46

PAVING EXCEPTION
SR 14 MP 63.45 TO MP 66.50

BROUGHTON BRIDGE NO. 14/137
INCLUDED IN PROJECT
SR 14 MP 61.62 TO MP 61.65

END STP-PM00(001)
END PROJECT
END SECTION 2
SR 14 MP 76.93

Notes to the Designer:

1) This is an example of a simple paver utilizing mile posts only. If stationing is used in the plans, then stationing must be shown on the vicinity map.

2) This example shows how paving exceptions are shown on a vicinity map.

3) This example also shows how bridges are to be shown on a vicinity map when their location is within project the limits.

FILE NAME	C:\AAWork\Manuals\PPM\2012\Div 4 Example files\PPM_Div_4_Example_1-40.dgn				REGION NO. 10	STATE WASH	FED.AID PROJ.NO. NH-0000(000)	Plot 6
TIME	3:29:20 PM							VM1
DATE	9/5/2012							
PLOTTED BY	KerrT				JOB NUMBER 00Z000			
DESIGNED BY	DESIGNER							SHEET
ENTERED BY	CAD OPERATOR							OF
CHECKED BY	TEAM LEADER				CONTRACT NO.		LOCATION NO. XL-1234	SHEETS
PROJ. ENGR.	PROJECT ENGINEER							
REGIONAL ADM.	REGIONAL ADM.	REVISION	DATE	BY				

P.E. STAMP BOX DATE

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EXAMPLE 4-6

VICINITY MAP

DOT_RGG900

6/16/2004

SUMMARY OF QUANTITIES

ITEM NO	TOTAL QUANTITY	SUB-TOTAL * SECTION I-07.2(1) OF STANDARD SPECS	SUB-TOTAL ** SECTION I-07.2(2) OF STANDARD SPECS	STD. ITEM NO.	UNIT	ITEM	GROUP 1 SR77 49+00.00 TO 70+85.00	GROUP 1 DB6 LINE 9+00.00 TO 29+85.00	GROUP 1 MC-N LINE 10+00.00 TO 17+18.64	GROUP 1 MC-S LINE 10+00.00 TO 13+59.65	GROUP 1 W-NS LINE 10+00.00 TO 17+74.53	GROUP 1 NS-W LINE 9+00.00 TO 18+19.15	GROUP 1 BRIDGE NO. 77/10	GROUP 2 E-NS LINE 10+00.00 TO 18+83.05	GROUP 2 NS-E LINE 9+00.00 TO 22+36.98	GROUP 2 SR77 70+85.00 TO 95+00.00	GROUP 3 DB6 LINE 7+65.00 TO 9+00.00	GROUP 4 DB6 LINE 29+85.00 TO 31+20.00	GROUP 5 THIRD PARTY DAMAGES			
						PREPARATION																
1	LUMP SUM		LUMP SUM	0001	L.S.	MOBILIZATION	L.S.	L.S.	L.S.	L.S.	L.S.	L.S.	L.S.	L.S.	L.S.							
2	14.50		14.50	0025	ACRE	CLEARING AND GRUBBING	0.90	4.20	1.00	0.40	1.20	1.00		1.70	2.10	2.00						
3	6.00		6.00	0049	EACH	REMOVING DRAINAGE STRUCTURE	1.00	5.00														
4	25517.00	700.00	24817.00	0120	S.Y.	REMOVING ASPHALT CONC. PAVEMENT	5,679.00	3,057.00	5,219.00	2,238.00	221.00				221.00	8,182.00	700.00					
5	930.00		930.00	0170	L.F.	REMOVING GUARDRAIL			580.00			170.00		180.00								
6	4.00		4.00	0182	EACH	REMOVING GUARDRAIL ANCHOR			2.00			1.00		1.00								
7	LUMP SUM		LUMP SUM	0215	L.S.	REMOVING MISCELLANEOUS TRAFFIC ITEM	L.S.	L.S.	L.S.	L.S.												
8	350.00		350.00	0230	L.F.	REMOVING WIRE FENCE		150.00			200.00											
						GRADING																
9	61810.00	60.00	61750.00	0310	C.Y.	ROADWAY EXCAVATION INCL. HAUL	1,590.00	1,320.00	5,640.00	1,130.00	11,040.00	7,160.00		11,500.00	15,810.00	6,560.00	60.00					
10	1250.00		1250.00	0330	C.Y.	ROADWAY EXCAVATION INCL. HAUL - AREA POND A			1,250.00													
11	1850.00		1850.00	0330	C.Y.	ROADWAY EXCAVATION INCL. HAUL - AREA POND B						1,850.00										
12	7000.00		7000.00	0330	C.Y.	ROADWAY EXCAVATION INCL. HAUL - AREA POND C		7,000.00														
13	109850.00	130.00	109720.00	0408	TON	SELECT BORROW INCL. HAUL	3,150.00	78,980.00	20,470.00	1,970.00	1,000.00	790.00		1,010.00	1,340.00	1,010.00	90.00	40.00				
14	62080.00	70.00	62010.00	0470	C.Y.	EMBANKMENT COMPACTION	1,710.00	42,690.00	11,070.00	1,070.00	950.00	630.00		1,110.00	2,240.00	540.00	50.00	20.00				
						DRAINAGE																
15	1513.00		1513.00	1030	C.Y.	DITCH EXCAVATION INCL. HAUL	784.00	511.00			6.00	212.00										
16	3.00		3.00	1054	EACH	GRATE INLET TYPE 2	1.00	2.00														
17	4100.00		4100.00	1086	TON	QUARRY SPALLS	2.00	30.00	11.00	2.00	617.00	315.00		846.00	2,277.00							
18	228.00		228.00	1161	L.F.	UNDERDRAIN PIPE 8 IN. DIAM.		228.00														
19	660.00		660.00	1182	L.F.	SCHEDULE A CULV. PIPE 18 IN. DIAM.	24.00	161.00	126.00	98.00		89.00		83.00	79.00							
20	61.00		61.00	1272	L.F.	CL. IV REINF. CONC. CULV. PIPE 18 IN. DIAM.					61.00											
						STORM SEWER																
21	4.00		4.00	3090	EACH	CATCH BASIN TYPE 2 - 54 IN. DIAM. WITH FLOW RESTRITOR	1.00	1.00	1.00			1.00										
22	1.00		1.00	3091	EACH	CATCH BASIN TYPE 1		1.00														
23	505.00		505.00	3151	L.F.	TESTING STORM SEWER PIPE	178.00	188.00	78.00			61.00										
24	230.00		230.00	3541	L.F.	SCHEDULE A STORM SEWER PIPE 12 IN. DIAM.	51.00	40.00	78.00			61.00										
25	127.00		127.00	3582	L.F.	SOLID WALL PVC STORM SEWER PIPE 24 IN. DIAM.	127.00															
26	148.00		148.00	3602	L.F.	CORRUGATED POLYETHYLENE STORM SEWER PIPE 12 IN. DIAM.		148.00														
						STRUCTURE																
27	600.00		600.00	4006	C.Y.	STRUCTURE EXCAVATION CLASS A INCL. HAUL							600.00									
28	LUMP SUM		LUMP SUM	4013	L.S.	SHORING OR EXTRA EXCAVATION CL. A							L.S.									
29	141.00		141.00	4025	C.Y.	GRAVEL BACKFILL FOR WALL							141.00									
30	4.00		4.00	4060	EACH	FURNISHING AND DRIVING CONCRETE TEST PILE							4.00									
31	1900.00		1900.00	4070	L.F.	FURNISHING CONC. PILING 24 INCH DIAM.							1,900.00									
32	50.00		50.00	4080	EACH	DRIVING CONC. PILE 24 INCH DIAM.							50.00									
33	54.00		54.00	8376	EACH	FURNISHING STEEL PILE TIP OR SHOE							54.00									
34	119600.00		119600.00	4149	LB.	ST. REINF. BAR FOR BRIDGE							119,600.00									
35	700.00		700.00	4322	C.Y.	CONC. CLASS 4000 FOR BRIDGE							700.00									
36	1.00		1.00	4219	DOL	DEFICIENT STRENGTH CONC. PRICE ADJUSTMENT							1.00									
37	LUMP SUM		LUMP SUM	4300	L.S.	SUPERSTRUCTURE BRIDGE 8/15							L.S.									
38	1688.00		1688.00	4352	L.F.	CONDUIT PIPE 2 IN. DIAM.							1,688.00									
39	854.00		854.00	4415	L.F.	TRAFFIC BARRIER							854.00									

GROUP LEGEND :

GROUP NUMBER	SR	CONTROL SECTION	TAX SCHEDULE	FUND PARTICIPANTS
1	77	140801	**	STATE,FEDERAL AID
2	77	140800	**	STATE,FEDERAL AID
3	77	1400CT	*	STATE,FEDERAL AID
4	77	1400CY	*	STATE,FEDERAL AID
5	77	140800	**	STATE

DATE	REVISION	BY

REGION	STATE
10	WA

JOB NUMBER **04H321/1**

CONTRACT NO **000000**

FEDERAL AID PROJECT. NO.

NH-0077(000)

Washington State Department of Transportation

SR 77
EXAMPLE 4-7

SUMMARY OF QUANTITIES

SQ1

SHEET 3 OF 117 SHEETS

SUMMARY OF QUANTITIES

DOT_RGG900

6/16/2004

ITEM NO	TOTAL QUANTITY	SUB-TOTAL * SECTION I-07.2(1) OF STANDARD SPECS	SUB-TOTAL ** SECTION I-07.2(2) OF STANDARD SPECS	STD. ITEM NO.	UNIT	ITEM	GROUP 1 SR77 49+00.00 TO 70+85.00	GROUP 1 DB6 LINE 9+00.00 TO 29+85.00	GROUP 1 MC-N LINE 10+00.00 TO 17+18.64	GROUP 1 MC-S LINE 10+00.00 TO 13+59.65	GROUP 1 W-NS LINE 10+00.00 TO 17+74.53	GROUP 1 NS-W LINE 9+00.00 TO 18+19.15	GROUP 1 BRIDGE NO. 77/10	GROUP 2 E-NS LINE 10+00.00 TO 18+83.05	GROUP 2 NS-E LINE 9+00.00 TO 22+36.98	GROUP 2 SR77 70+85.00 TO 95+00.00	GROUP 3 DB6 LINE 7+65.00 TO 9+00.00	GROUP 4 DB6 LINE 29+85.00 TO 31+20.00	GROUP 5 THIRD PARTY DAMAGES			
						SURFACING																
40	20634.00	375.00	20259.00	5100	TON	CRUSHED SURFACING BASE COURSE	2,676.00	4,515.00	1,910.00	900.00	1,680.00	1,570.00		1,780.00	2,600.00	2,628.00	375.00					
						LIQUID ASPHALT																
41	10028.00	206.00	9822.00	5334	DOL	ANTI-STRIPPING ADDITIVE	1,333.00	2,313.00	923.00	425.00	760.00	690.00		765.00	1,020.00	1,593.00	178.00	28.00				
						ASPHALT CONCRETE PAVEMENT																
42	180.00	180.00		5711	S.Y.	PLANING BITUMINOUS PAVEMENT												180.00				
43	20045.00	410.00	19635.00	5767	TON	HMA CL. 1/2 IN. PG 58-22	2,665.00	4,625.00	1,845.00	850.00	1,520.00	1,380.00		1,530.00	2,035.00	3,185.00	355.00	55.00				
44	21046.00	431.00	20615.00	5830	DOL	JOB MIX COMPLIANCE PRICE ADJUSTMENT	2,798.00	4,856.00	1,937.00	893.00	1,596.00	1,450.00		1,606.00	2,135.00	3,344.00	373.00	58.00				
45	9962.00	204.00	9758.00	5835	DOL	COMPACTION PRICE ADJUSTMENT	1,325.00	2,299.00	917.00	422.00	755.00	686.00		760.00	1,011.00	1,583.00	176.00	28.00				
						EROSION CONTROL AND PLANTING																
46	36.00		36.00	6403	DAY	ESC LEAD	36.00															
47	2.80		2.80	6414	ACRE	SEEDING, FERTILIZING, AND MULCHING	1.60	0.33		0.28	0.21	0.13			0.25							
48	4279.00	31.00	4248.00	6438	C.Y.	COMPOST	662.00	870.00	551.00	127.00	742.00	640.00		175.00	481.00		31.00					
49	252.00		252.00	6468	S.Y.	STABILIZED CONSTRUCTION ENTRANCE					252.00											
50	3790.00		3790.00	6373	L.F.	SILT FENCE	1,295.00	1,480.00	625.00			390.00										
51	20000.00		20000.00	6490	DOL	EROSION/WATER POLLUTION CONTROL	20,000.00															
52	3740.00		3740.00	6410	C.Y.	TOPSOIL TYPE B		1,400.00			2,340.00											
						TRAFFIC																
53	1530.00		1530.00	6727	L.F.	EXTRUDED CURB		1,130.00	215.00			185.00										
54	522.00		522.00	6748	L.F.	BEAM GUARDRAIL TYPE 1 - 8 FT. LONG POST	522.00															
55	1894.00		1894.00	6751	L.F.	BEAM GUARDRAIL TYPE 1	930.00	964.00														
56	4.00		4.00	6760	EACH	BEAM GUARDRAIL TRANSITION SECTION TYPE D		4.00														
57	4.00		4.00	6716	EACH	BEAM GUARDRAIL FLARED TERMINAL	2.00	2.00														
58	4.00		4.00	6774	EACH	BEAM GUARDRAIL ANCHOR TYPE 4	2.00	2.00														
59	1600.00		1600.00	6781	L.F.	TEMPORARY CONC. BARRIER	1,600.00															
60	4.00		4.00	7440	EACH	TEMPORARY IMPACT ATTENUATOR	4.00															
61	7400.00		7400.00	7444	DOL	REPAIR IMPACT ATTENUATOR	7,400.00															
62	1.00		1.00	7447	EACH	TRUCK MOUNTED IMPACT ATTENUATOR		1.00														
63	60.00		60.00	7449	HOUR	OPERATION OF TRUCK MOUNTED IMPACT ATTENUATOR	60.00															
64	166.00		166.00	6832	EACH	FLEXIBLE GUIDE POST	44.00	14.00	23.00	14.00	17.00	18.00		14.00	22.00							
65	24320.00	910.00	23410.00	6806	L.F.	PAINT LINE	3,590.00	5,890.00	1,500.00	780.00	1,280.00	1,180.00		1,420.00	2,270.00	5,500.00	510.00	400.00				
66	210.00		210.00	6807	L.F.	PLASTIC LINE	210.00															
67	3070.00		3070.00	6818	L.F.	PLASTIC WIDE LINE	830.00				250.00	360.00		200.00	270.00	1,160.00						
68	2580.00		2580.00	6854	L.F.	PAINTED BARRIER LINE			1,340.00	620.00	160.00	150.00		150.00	160.00							
69	100.00		100.00	6859	L.F.	PLASTIC STOP LINE		40.00	30.00	30.00												
70	6.00		6.00	6833	EACH	PLASTIC TRAFFIC ARROW			2.00	2.00	1.00			1.00								
71	27.00		27.00	6881	EACH	PLASTIC DRAINAGE MARKING	6.00	9.00	2.00	2.00	2.00	2.00		2.00	2.00							
72	54.00		54.00		EACH	PLASTIC JUNCTION BOX MARKING	10.00	2.00	5.00	4.00	5.00	5.00		5.00	7.00	11.00						
73	4.00		4.00	6882	HUND	RAISED PAVEMENT MARKER TYPE 1	2.00									2.00						
74	3.25		3.25	6884	HUND	RAISED PAVEMENT MARKER TYPE 2	1.43	0.28	0.18	0.08	0.28	0.31		0.28	0.41							
75	11000.00		11000.00	6888	L.F.	TEMPORARY PAVEMENT MARKING	2,400.00		4,550.00	2,400.00						1,650.00						
76	LUMP SUM		LUMP SUM	6890	L.S.	PERMANENT SIGNING	L.S.															
77	LUMP SUM		LUMP SUM	6904	L.S.	ILLUMINATION SYSTEM SCD 2641	L.S.	L.S.				L.S.				L.S.						

GROUP LEGEND :

GROUP NUMBER	SR	CONTROL SECTION	TAX SCHEDULE	FUND PARTICIPANTS
1	77	140801	**	STATE,FEDERAL AID
2	77	140800	**	STATE,FEDERAL AID
3	77	1400CT	*	STATE,FEDERAL AID
4	77	1400CY	*	STATE,FEDERAL AID
5	77	140800	**	STATE

DATE	REVISION	BY

REGION	STATE	FEDERAL AID PROJECT. NO.
10	WA	NH-0077(000)

JOB NUMBER **04H321/1**

CONTRACT NO **000000**

Washington State Department of Transportation

EXAMPLE 4-8

SUMMARY OF QUANTITIES

SQ2

SHEET 4 OF 117 SHEETS

SUMMARY OF QUANTITIES

ITEM NO	TOTAL QUANTITY	SUB-TOTAL * SECTION I-07.2(1) OF STANDARD SPECS	SUB-TOTAL ** SECTION I-07.2(2) OF STANDARD SPECS	STD. ITEM NO.	UNIT	ITEM	GROUP 1 SR77 49+00.00 TO 70+85.00	GROUP 1 DB6 LINE 9+00.00 TO 29+85.00	GROUP 1 MC-N LINE 10+00.00 TO 17+18.64	GROUP 1 MC-S LINE 10+00.00 TO 13+59.65	GROUP 1 W-NS LINE 10+00.00 TO 17+74.53	GROUP 1 NS-W LINE 9+00.00 TO 18+19.15	GROUP 1 BRIDGE NO. 77/10	GROUP 2 E-NS LINE 10+00.00 TO 18+83.05	GROUP 2 NS-E LINE 9+00.00 TO 22+36.98	GROUP 2 SR77 70+85.00 TO 95+00.00	GROUP 3 DB6 LINE 7+65.00 TO 9+00.00	GROUP 4 DB6 LINE 29+85.00 TO 31+20.00	GROUP 5 THIRD PARTY DAMAGES			
78	LUMP SUM		LUMP SUM	6904	L.S.	ILLUMINATION SYSTEM SCD 2642	L.S.	L.S.			L.S.					L.S.						
79	LUMP SUM		LUMP SUM	6904	L.S.	ILLUMINATION SYSTEM SCX 2643	L.S.															
80	LUMP SUM		LUMP SUM	9380	L.S.	TEMPORARY TRAFFIC CONTROL DEVICES	L.S.															
81	2.00		2.00		EACH	TEMPORARY PAINTED TRAFFIC ARROW	2.00															
82	900.00		900.00	6979	HOUR	TRAFFIC CONTROL LABOR	900.00															
83	1000.00		1000.00	6972	HOUR	TRAFFIC CONTROL SUPERVISOR	1,000.00															
84	1085.00		1085.00	6982	S.F.	CONSTRUCTION SIGNS CLASS A	1,085.00															
						OTHER ITEMS																
85	1740.00		1740.00	7006	C.Y.	STRUCTURE EXCAVATION CLASS B INCL. HAUL	580.00	390.00	320.00	110.00	40.00	150.00		80.00	70.00							
86	6550.00		6550.00	7008	S.F.	SHORING OR EXTRA EXCAVATION CLASS B	750.00	1,140.00	1,670.00	670.00	270.00	1,040.00		530.00	480.00							
87	12.00		12.00	7014	C.Y.	GRAVEL BACKFILL FOR DRAIN		12.00														
88	700.00		700.00	7018	mGAL	WATER	120.00	290.00	90.00	20.00	40.00	40.00		40.00	60.00							
89	1.00		1.00	7029	EACH	PLUGGING EXISTING PIPE			1.00													
90	LUMP SUM		LUMP SUM	7037	L.S.	STRUCTURE SURVEYING							L.S.									
91	5.00		5.00	7045	EACH	MONUMENT CASE AND COVER		2.00		1.00				1.00	1.00							
92	593.00		593.00	7065	S.Y.	CONC. SLOPE PROTECTION	593.00															
93	320.00		320.00	7110	L.F.	WIRE FENCE TYPE 1		320.00														
94	LUMP SUM		LUMP SUM	7350	L.S.	CLEANING EXISTING DRAINAGE STRUCTURE	L.S.															
95	1200.00		1200.00	7400	HOUR	TRAINING	1,200.00															
96	2000.00		2000.00	7480	DOL	ROADSIDE CLEANUP	2,000.00															
97	LUMP SUM		LUMP SUM	7490	L.S.	TRIMMING AND CLEANUP	L.S.	L.S.	L.S.	L.S.	L.S.	L.S.		L.S.	L.S.							
98	5.00		5.00	7725	DOL	REIMBURSEMENT FOR THIRD PARTY DAMAGE													5.00			
99	-1.00		-1.00	7728	DOL	MINOR CHANGE	-1.00															
100	LUMP SUM		LUMP SUM	7736	L.S.	SPCC PLAN	L.S.															
101	LUMP SUM		LUMP SUM	7500	L.S.	FIELD OFFICE BUILDING		L.S.														
102	120.00		120.00	7550	S.Y.	CONSTRUCTION GEOTEXTILE FOR UNDERGROUND DRAINAGE		80.00	20.00			20.00										
103	4220.00		4220.00	7552	S.Y.	CONSTRUCTION GEOTEXTILE FOR SOIL STABILIZATION					650.00	330.00		880.00	2,360.00							
104	1.00		1.00	7562	EACH	MAILBOX SUPPORT TYPE 1		1.00														

GROUP LEGEND :

GROUP NUMBER	SR	CONTROL SECTION	TAX SCHEDULE	FUND PARTICIPANTS
1	77	140801	**	STATE,FEDERAL AID
2	77	140800	**	STATE,FEDERAL AID
3	77	1400CT	*	STATE,FEDERAL AID
4	77	1400CY	*	STATE,FEDERAL AID
5	77	140800	**	STATE

DATE	REVISION	BY

REGION	STATE	FEDERAL AID PROJECT. NO.
10	WA	NH-0077(000)

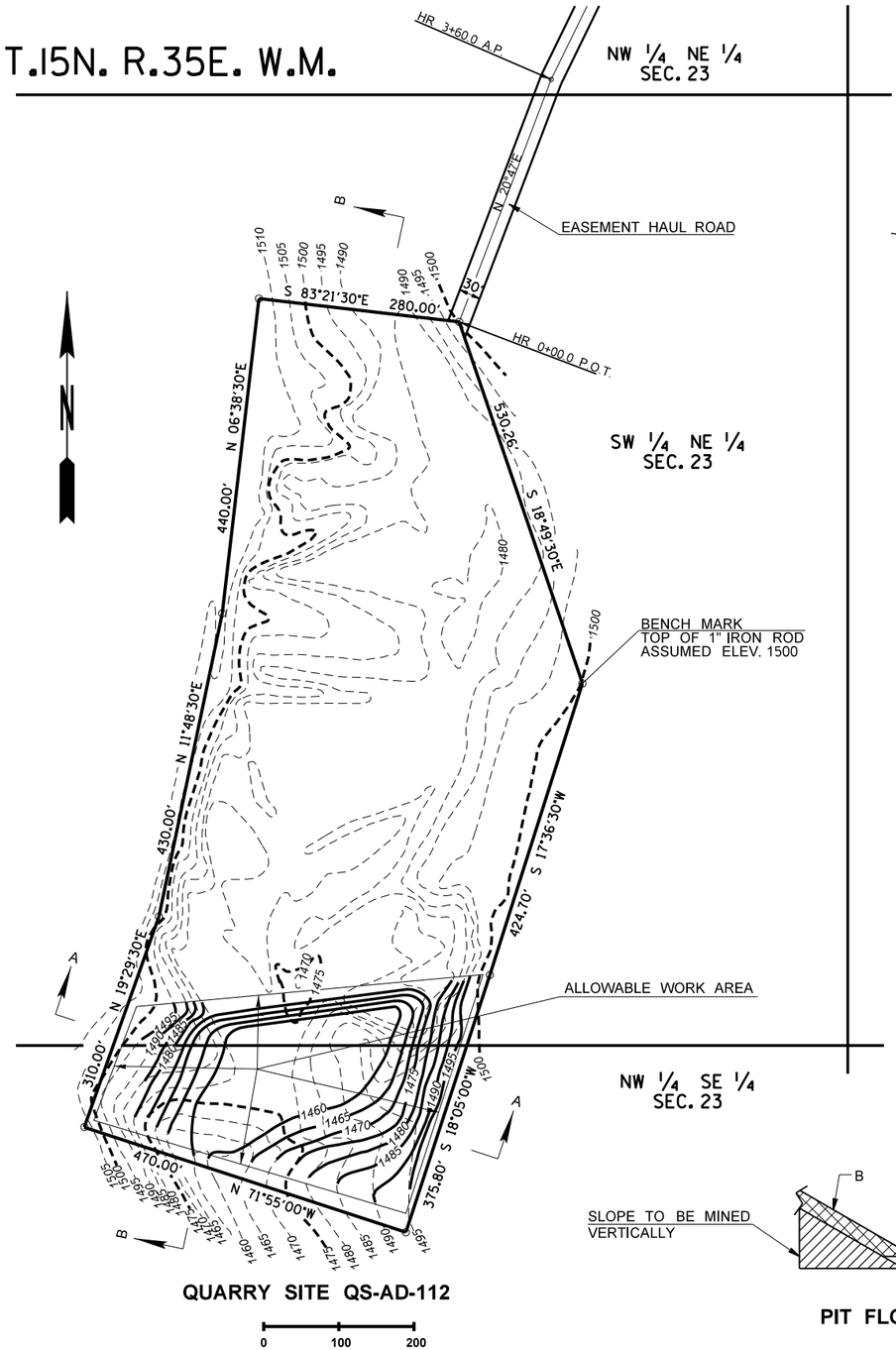
JOB NUMBER **04H321/1**

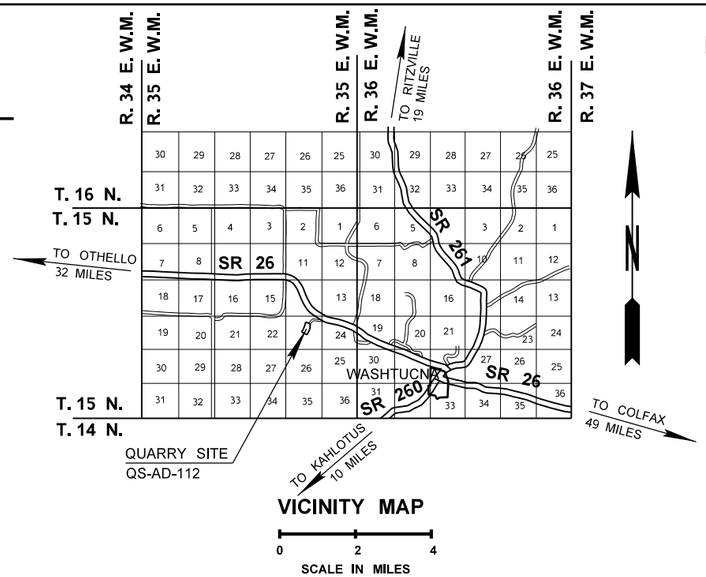
CONTRACT NO **000000**

Washington State
Department of Transportation

EXAMPLE 4-9

SUMMARY OF QUANTITIES





QUARRY SITE QS-AD-112

There is sufficient material in this quarry for this project

SOURCE OF MATERIAL FOR PRODUCTION OF:

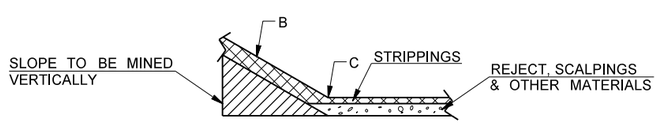
BALLAST
CRUSHED SURFACING TOP COURSE
CRUSHED SCREENING ½ INCH TO ¼ INCH
CRUSHED SCREENING ¼ INCH TO 0
PRIME COAT AGGREGATE
MINERAL AGGREGATE FOR ASPHALT CONCRETE
PAVEMENT CLASS B

STRIPPING INCLUDING HAUL SITE QS-AD-112

LEGEND

A	Natural Area 10' Minimum
B	2:1 Slope Maximum
C	Rounding For Natural Appearance
D	Vertical Slope 30' Maximum
E	Bench 30' Minimum

Existing Contours
Ultimate Contours
Area For Additional Borrow Material
Contract Work Area
Contour Interval 5'



PIT FLOOR DETAIL

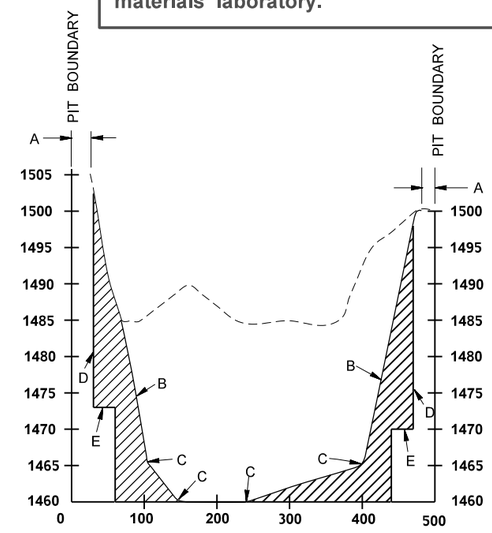
NOTES:

1. Quarry QS-AD-112 is owned by the Washington State Department of Transportation.
2. All slope intersections shall be rounded for natural appearance.
3. No contaminates are anticipated.
4. When all mining is completed in this quarry site, all disturbed areas shall be seeded, fertilized, and mulched with special erosion control mix.
5. Drainage shall be towards the south end of the site.
6. Scalpings shall be used on the quarry floor and on the sides to obtain the side slope. It may be necessary to haul additional borrow material into site to construct the side slopes for ultimate reclamation.
7. All pit boundaries shall be fenced with Type 2 wire fencing including a 20 foot wide gate at the haul road as first order of work.

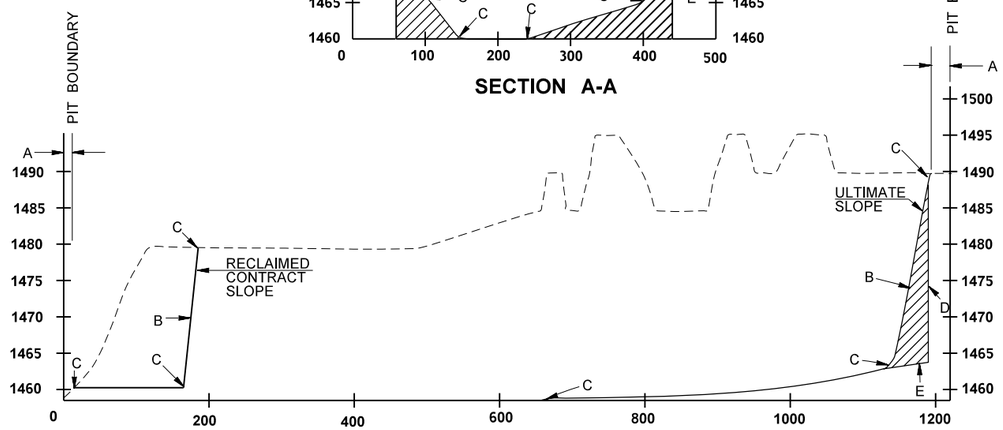
Notes to the Designer:

1) Make sure that all notes are project specific.

2) The contract reclamation plan is developed from the ultimate reclamation plan on file with the regional materials laboratory.



SECTION A-A



SECTION B-B

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DATE	9/5/2012							
PLOTTED BY	KerrT				JOB NUMBER 00Z000			
DESIGNED BY	DESIGNER				CONTRACT NO.		LOCATION NO. XL-1234	SHEET OF SHEETS
ENTERED BY	CAD OPERATOR							
CHECKED BY	TEAM LEADER							
PROJ. ENGR.	PROJECT ENGINEER							
REGIONAL ADM.	REGIONAL ADM.	REVISION	DATE	BY				

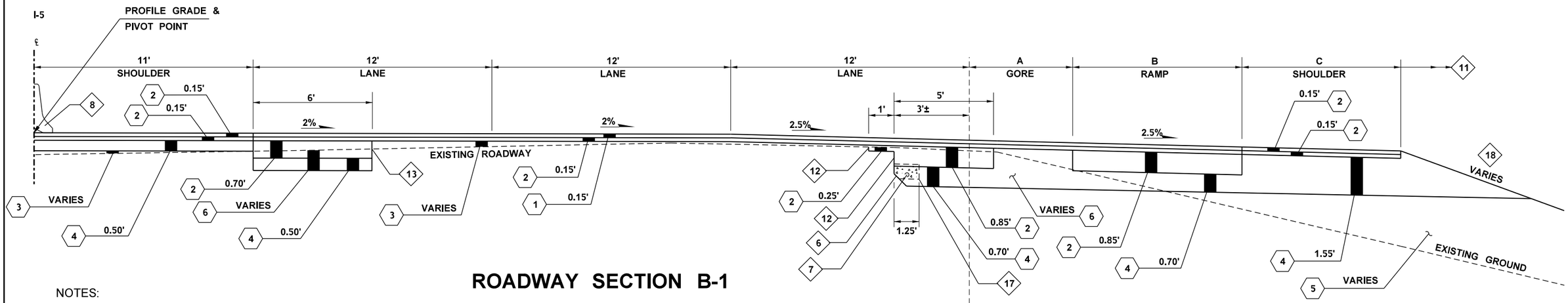
DATE
P.E. STAMP BOX

DATE
P.E. STAMP BOX

Washington State Department of Transportation

EXAMPLE 4-10

RECLAMATION PLAN



NOTES:

6. DO NOT MAKE VERTICAL CUT BELOW PCCP PANEL USE 1:1
7. 4" CORRUGATED PLASTIC UNDERDRAIN PIPE TO BE REMOVED AS PART OF ROADWAY EXCAVATION INCL. HAUL.
8. SEE STAGING AND TESC PLANS FOR BARRIER TYPE AND PLACEMENT
11. SEE SHOULDER DETAILS, REFERENCE SHEET R16
12. SAW CUT OR GRIND EDGE TO BE WITHIN 1" OF EDGE OF EXISTING CONC. PANEL EDGE
13. SAW CUT OR GRIND EDGE
14. SINGLE SLOPE BARRIER PRE-CAST TYPE SEE STANDARD PLAN C-13
16. CONCRETE SLOPE PROCTION SEE STANDARD PLAN A-30.10
18. SEE SHOULDER SCHEDULE, REFERENCE SHEET RS15, RS16 FOR SHOULDER SLOPE

ALL DEPTHS ARE COMPACTED DEPTHS
NST = NOT STEEPER THAN

LEGEND

1. HMA CL. ½ IN. PG 70-22
2. HMA CL. ½ IN. PG 64-22
3. HMA FOR PRELEVELING CL.½ IN. PG 64-22
4. CRUSHED SURFACING BASE COURSE
5. SPECIAL BORROW INCL. HAUL
6. ROADWAY EXCAVATION INCL. HAUL
7. PLANING BITUMINOUS PAVEMENT
8. TOPSOIL TYPE B

ROADWAY SECTION B-1

STATION RANGE	A	B	C
L 1450+25.14 (RT) TO L 1464+01.08 (RT)	0'	0'	10'
L 1461+01.08 (RT) TO L 1464+40.90 (RT)	0'	0' - 2'	10' - 8'
L 1464+40.90 (RT) TO L 1467+01.44 (RT)	0'	2' - 15'	8'
L 1467+01.44 (RT) TO L 1470+20.00 (RT)	0' - 16'	15'	8'
L 1504+76.00 (RT) TO L 1510+75.44 (RT)	12' - 0'	15'	8'
L 1510+75.44 (RT) TO L 1517+26.18 (RT)	0'	15' - 2'	8'
L 1517+26.18 (RT) TO L 1518+26.09 (RT)	0'	2' - 0'	8' - 10'
L 1518+26.09 (RT) TO L 1520+00.00 (RT)	0'	0'	10'

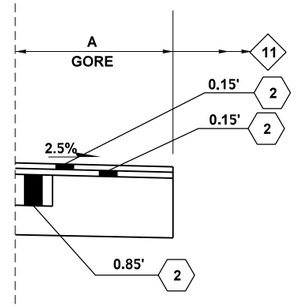
ROADWAY SECTION B-2

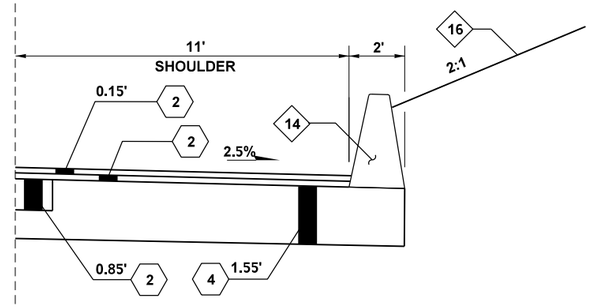
STATION RANGE	A
L 1470+20.00 (RT) TO L 1473+01.49 (RT)	16' - 11'
L 1495+17.30 (RT) TO L 1504+76.00 (RT)	11' - 12'

ROADWAY SECTION B-3

STATION RANGE
L 1473+01.49 (RT) TO L 1481+70.54 (RT)
L 1489+28.13 (RT) TO L 1495+17.30 (RT)

AL LINE
BL LINE





NOT TO SCALE

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DATE	9/5/2012				JOB NUMBER		
PLOTTED BY	KerrT				00Z000		
DESIGNED BY	DESIGNER				CONTRACT NO.		LOCATION NO.
ENTERED BY	CAD OPERATOR						SP1234
CHECKED BY	TEAM LEAD						
PROJ. ENGR.	PROJECT ENGINEER						
REGIONAL ADM.	REGIONAL ADM.	REVISION	DATE	BY			

P.E. STAMP BOX — DATE

P.E. STAMP BOX — DATE

Washington State Department of Transportation

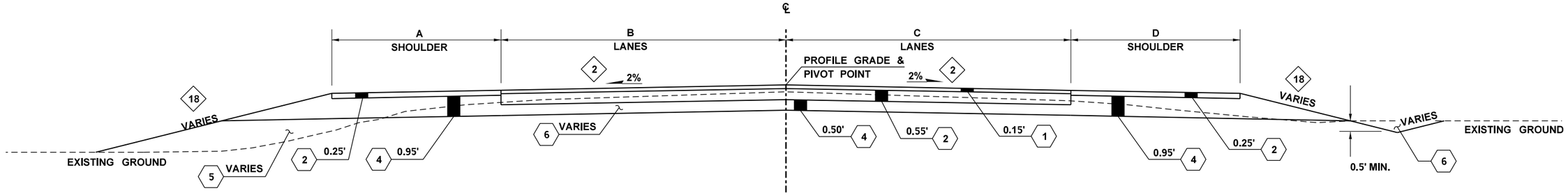
EXAMPLE 4-11
I-5 AND LABREE RD INTERCHANGE
EXAMPLE PROJECT

ROADWAY SECTION

Plot 3

PLAN REF NO
RS3

SHEET
OF
SHEETS



ROADWAY SECTION I-1

STATION RANGE	A	B	C	D
H 1728+69.89 TO H 1728+91.89	8.4'	11.3'	10.7'	9.4'
H 1728+91.89 TO H 1729+09.20	8.4'	11.3'	10.7' - 12.9'	9.4' - 10.3'
H 1729+09.20 TO H 1729+40.28	8.3' - 10.3'	11.3'	12.9' - 17'	10.3'
H 1729+40.28 (RT) TO H 1730+52.76 (RT)			17' - 32.2'	10.3'
H 1729+40.28 (LT) TO H 1730+75.77 (LT)	10.3' - 10.6'	11.3' - 17.8'		

NOTES:

2 CROSS SLOPES VARY, SEE SUPERELEVATION DIAGRAMS

9 CEMENT CONCRETE TRAFFIC CURB SEE STANDARD PLAN F-10.12

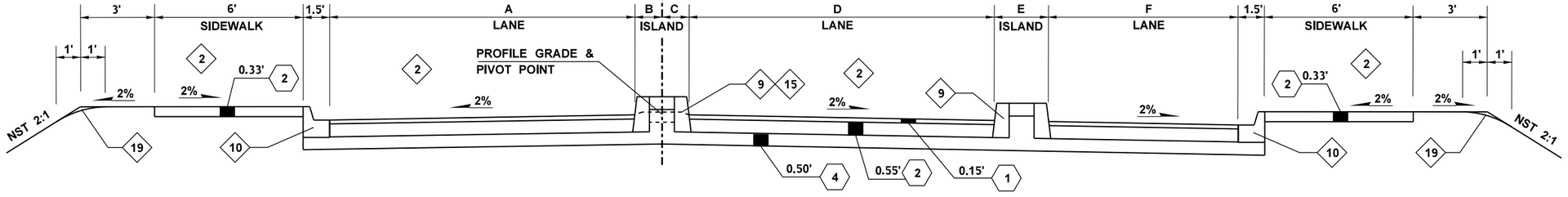
10 CEMENT CONCRETE TRAFFIC CURB AND GUTTER. SEE STANDARD PLAN F-10.12

15 ROUNDABOUT TRUCK APRON CEMENT CONCRETE CURB SEE STANDARD PLAN F-10.12

18 SEE SHOULDER SCHEDULE, REFERENCE SHEET RS15, RS16 FOR SHOULDER SLOPE

19 ROUND EDGE FOR SMOOTH TRANSITION

ALL DEPTHS ARE COMPACTED DEPTHS
NST = NOT STEEPER THAN



ROADWAY SECTION I-2

STATION RANGE	A	B	C	D	E	F
H 1730+52.76 (RT) TO H 1730+81.15 (RT)			1.3'	20.5'	0'	19.7'
H 1730+81.15 (RT) TO H 1730+92.13 (RT)			1.3' - 1.5'	20.5' - 22.2'	0'	19.7' - 21.2'
H 1730+92.13 (RT) TO H 1731+61.78 (RT)			1.5' - 11.9'	20.1' - 22'	5' - 23.6'	19'
H 1730+75.77 (LT) TO H 1730+81.15 (LT)	21' - 21.2'	0'				
H 1730+81.15 (LT) TO H 1731+60.15 (LT)	19.2' - 20.3'	2' - 11.5'				

LEGEND

1	HMA CL. ½ IN. PG 70-22
2	HMA CL. ½ IN. PG 64-22
3	HMA FOR PRELEVELING CL.½ IN. PG 64-22
4	CRUSHED SURFACING BASE COURSE
5	SPECIAL BORROW INCL. HAUL
6	ROADWAY EXCAVATION INCL. HAUL
7	PLANING BITUMINOUS PAVEMENT
8	TOPSOIL TYPE B

NOT TO SCALE

FILE NAME	C:\AAWork\Manuals\PPM\2012\Div 4 Example files\PPM_Div4_PS_RS.dgn				REGION NO. 10	STATE WASH	FED.AID PROJ.NO. NH-0000(000)
TIME	3:11:23 PM				JOB NUMBER 00Z000		
DATE	9/5/2012				CONTRACT NO.		LOCATION NO. SP1234
PLOTTED BY	KerrT						
DESIGNED BY	DESIGNER						
ENTERED BY	CAD OPERATOR						
CHECKED BY	TEAM LEAD						
PROJ. ENGR.	PROJECT ENGINEER						
REGIONAL ADM.	REGIONAL ADM.	REVISION	DATE	BY			

P.E. STAMP BOX DATE

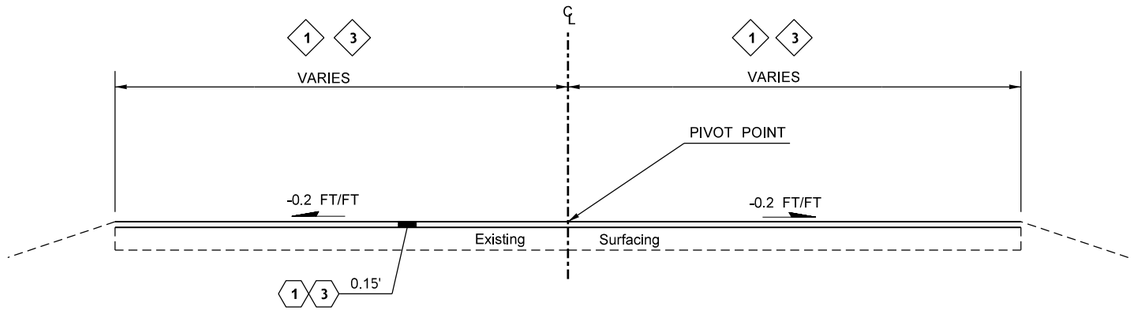
P.E. STAMP BOX DATE

Washington State Department of Transportation

EXAMPLE 4-12
I-5 AND LABREE RD INTERCHANGE
EXAMPLE PROJECT

ROADWAY SECTION

Plot 13
PLAN REF NO RS13
SHEET
OF
SHEETS

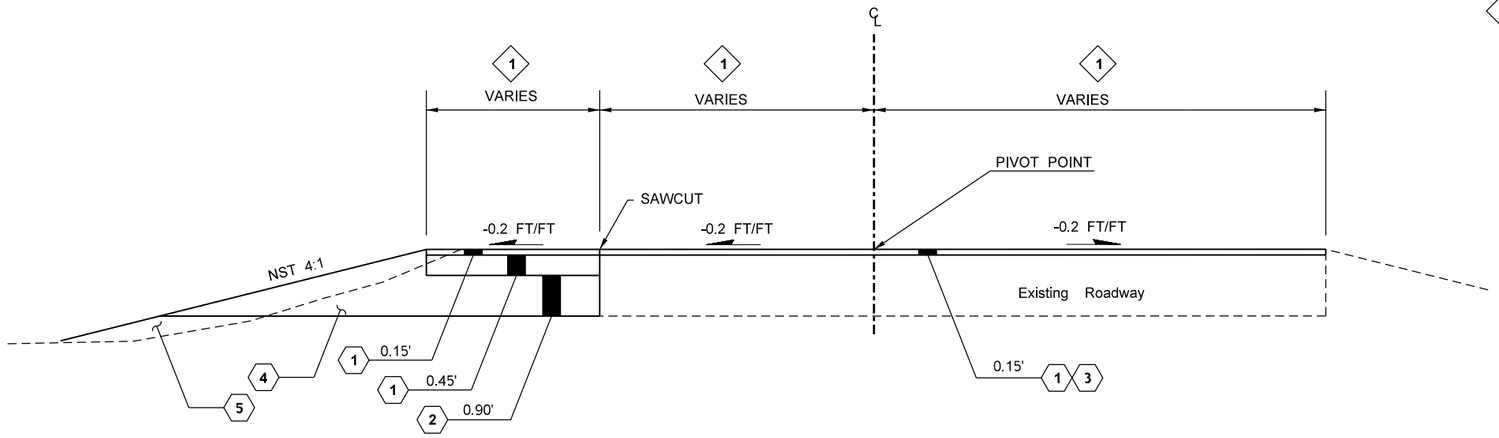


ROADWAY SECTION A

STA. L 461+50.00 TO STA. L 465+36.00
STA. L 468+18.00 TO STA. L 471+61.00

CONSTRUCTION NOTES

1. SEE PAVING PLANS
2. SEE SITE PREPARATION PLANS
3. BRIDGE NO. 241/010 AND APPROACH SLABS NOT INCLUDED IN PROJECT STA. L465+36.00 TO STA. L468+18.00
4. ALL PAVEMENT AND SURFACING DEPTHS SHOWN ARE COMPACTED DEPTHS (SEE STD. SPEC. 5-04.3(9) FOR MAXIMUM DEPTHS PER LAYER)
5. NST - NOT STEEPER THAN



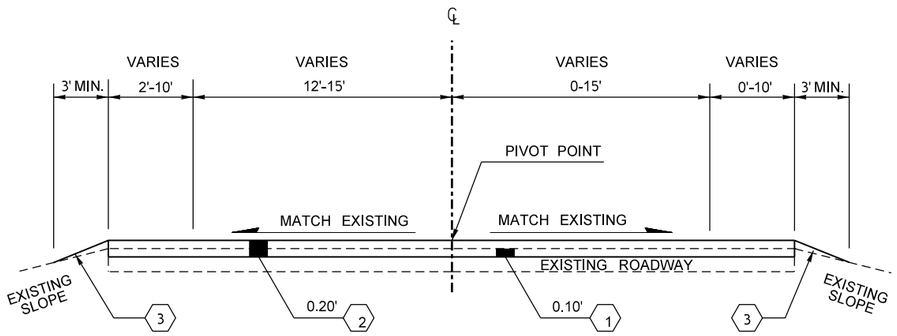
ROADWAY SECTION B

STA. L 471+61.00 TO STA. L 473+00.00

LEGEND

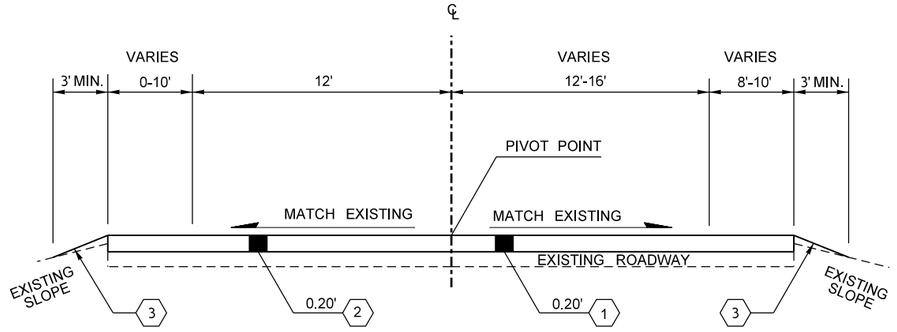
1. ASPHALT CONCRETE PAVEMENT CLASS A PG. 64-28
2. CRUSHED SURFACING BASE COURSE
3. PLANING BITUMINOUS PAVEMENT
4. ROADWAY EXCAVATION INCL. HAUL
5. EMBANKMENT COMPACTION

FILE NAME	C:\AAWork\Manuals\PPM\2012\Div 4 Example files\PPM_Div_4_Example_1-40.dgn				REGION NO. / STATE	FED.AID PROJ.NO.	Plot 13
TIME	3:30:21 PM				10 WASH	NH-0000(000)	RS2
DATE	9/5/2012				JOB NUMBER		
PLOTTED BY	KerrT				00Z000		SHEET
DESIGNED BY	DESIGNER				CONTRACT NO.	LOCATION NO.	OF
ENTERED BY	CAD OPERATOR					XL-1234	SHEETS
CHECKED BY	TEAM LEADER				P.E. STAMP BOX / DATE	P.E. STAMP BOX / DATE	
PROJ. ENGR.	PROJECT ENGINEER				Washington State Department of Transportation	EXAMPLE 4-13	
REGIONAL ADM.	REGIONAL ADM.	REVISION	DATE	BY		ROADWAY SECTION	



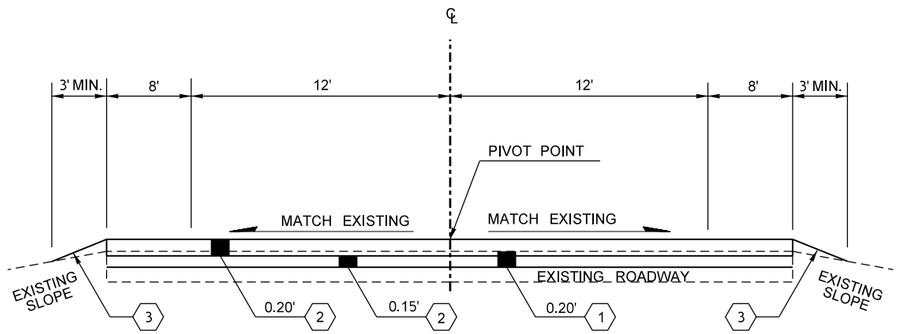
ROADWAY SECTION A

STATION	TO	STATION
L 10+00.00		L 31+11.37
L 34+74.70		L 46+96.00
C 318+92.80		C 327+22.80



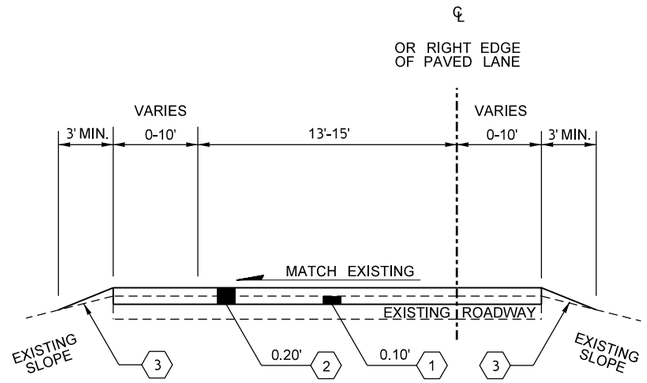
ROADWAY SECTION B

STATION	TO	STATION
L 46+96.00		L 64+38.40
L 77+58.40		L 239+15.20
L 241+79.20		L 242+84.80
CEW 13+00.00		CEW 30+06.93



ROADWAY SECTION C

STATION	TO	STATION
L 64+38.40		L 77+58.40
L 239+15.20		L 241+79.20



ROADWAY SECTION D

STATION	TO	STATION
C 327+22.80		C 333+01.65
C 327+22.80		L 39+27.95

LEGEND

1. PLANING BITUMINOUS PAVEMENT
2. HMA CL. ½ IN. PG
3. SHOULDER FINISHING

NOTES:

1. ALL DEPTHS SHOWN ARE COMPACTED DEPTHS
2. SEE PAVING PLAN FOR VARIABLE WIDTHS
3. BRIDGE 12/612 IS INCLUDED IN THIS PROJECT (STATION L 31+11.37 TO L34+74.70)

NOT TO SCALE

FILE NAME	C:\AAWork\Manuals\PPM\2012\Div 4 Example files\PPM_Div_4_Example_1-40.dgn				REGION NO. 10	STATE WASH	FED.AID PROJ.NO. NH-0000(000)
TIME	3:30:27 PM						
DATE	9/5/2012						
PLOTTED BY	KerrT						
DESIGNED BY	DESIGNER				JOB NUMBER 00Z000		
ENTERED BY	CAD OPERATOR						
CHECKED BY	TEAM LEADER				CONTRACT NO.		LOCATION NO. XL-1234
PROJ. ENGR.	PROJECT ENGINEER						
REGIONAL ADM.	REGIONAL ADM.	REVISION	DATE	BY			

P.E. STAMP BOX — DATE

P.E. STAMP BOX — DATE

Washington State Department of Transportation

EXAMPLE 4-14

ROADWAY SECTION

Plot 14

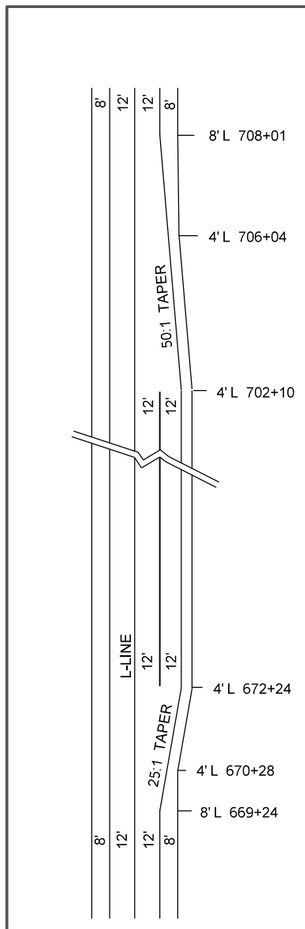
RS3

SHEET OF SHEETS

CONSTRUCTION NOTES:

1. AUXILIARY PASSING LANE
   LANE VARIES FROM 0' AT L 669+29
   TO 12' AT L 672+24, AND
   FROM 12' AT L702+10 TO 0' AT
   L 708+01

2. RIGHT SHOULDER
   SHOULDER VARIES FROM 8' AT L 699+29
   TO 4' AT L 670+28, AND FROM 4'
   AT L 706+04 TO 8' AT
   L 708+01



AUXILIARY PASSING LANE

LEGEND

1. ASPHALT CONC. PAVEMENT CL. B - 0.15' COMP. DEPTH
2. CRUSHED SURFACING TOP COURSE - VARIES COMP. DEPTH

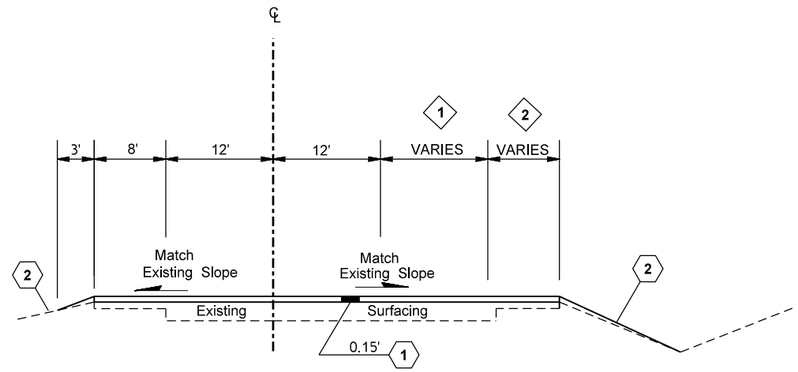
Notes to the Designer:

1) The auxiliary passing lane detail is shown here for your use in seeing what Roadway Section C is accomplishing without the use of a paving or channelization plan on a simple paving project.

2) The two Roadway Section C's are displayed as an example of different ways of showing the same thing.

3) Even though the shoulder doesn't specify tapering exactly as shown in the plan detail it is sufficient for an overlay project where the paving in the field will be done to the existing condition and the contractor can still obtain a reasonable quantity take-off from it.

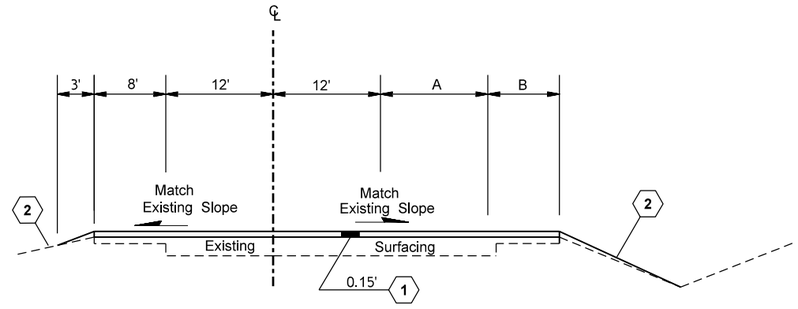
L-LINE



ROADWAY SECTION C

L 505+25 TO L 997+38

L-LINE



ROADWAY SECTION C

STATION	A	B
L 505+25 TO L 669+29	0	8'
L 669+29 TO L 672+24	0-12'	8'-4'
L 672+24 TO L 702+10	12'	4'
L 702+10 TO L 708+01	12'-0	4'-8'
L 708+01 TO L 997+38	0	8'

FILE NAME	C:\AAWork\Manuals\PPM\2012\Div 4 Example files\PPM_Div_4_Example_1-40.dgn				REGION NO. 10	STATE WASH	FED.AID PROJ.NO. NH-0000(000)
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DATE	9/6/2012						
PLOTTED BY	KerrT						
DESIGNED BY	DESIGNER				JOB NUMBER 00Z000		
ENTERED BY	CAD OPERATOR						
CHECKED BY	TEAM LEADER				CONTRACT NO.		LOCATION NO. XL-1234
PROJ. ENGR.	PROJECT ENGINEER						
REGIONAL ADM.	REGIONAL ADM.	REVISION	DATE	BY			

P.E. STAMP BOX — DATE

P.E. STAMP BOX — DATE

Washington State Department of Transportation

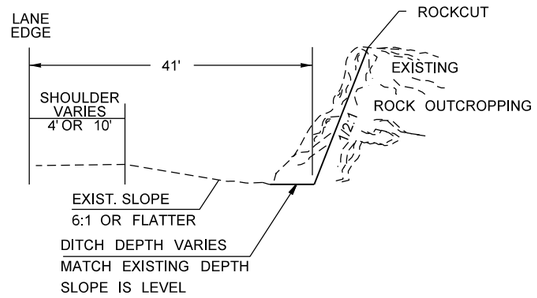
EXAMPLE 4-15

ROADWAY SECTION

Plot 15

RS4

SHEET OF SHEETS



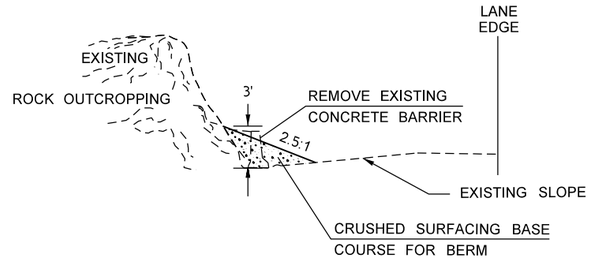
ROCKCUT DETAIL (TYPICAL)

LL 1118+92 to 1126+00 MED.
LL 1177+50 to 1192+50 MED.

LL 1119+75 to 1140+50 LT.
LL 1176+50 to 1193+00 LT.
LL 1203.50 to 1205+00 LT.

LR 1112+50 to 1115+00 MED.
LR 1128+10 to 1146+70 MED.
LR 1152+70 to 1155+50 MED.

LR 1134+50 to 1138+50 RT.
LR 1178+00 to 1179+25 RT.
LR 1182+00 to 1194+40 RT.

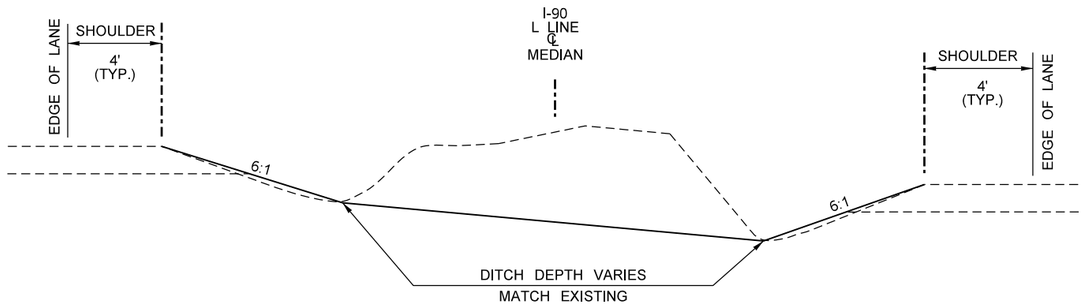


MEDIAN BERM DETAIL (TYPICAL)

LL 1225+45 to 1228+50 MED.
LL 1240+00 to 1250+20 MED.

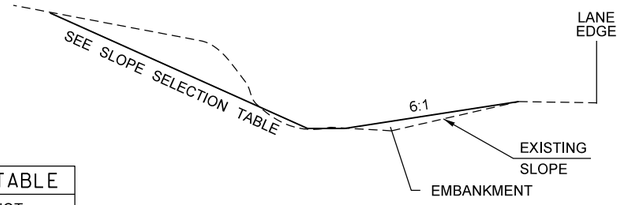
LL 1220+00 to 1222+50 LT.
LL 1376+00 to 1382+50 LT.

LR 1092+50 to 1105+50 MED.
LR 1220+00 to 1254+00 MED.
LR 1275+50 to 1281+00 MED.



MEDIAN CUT DETAIL (TYPICAL)

LR 1274+50 to 1276+00
LR 1332+50 to 1341+00



SLOPE SELECTION TABLE	
HEIGHT OF CUT	SLOPE NOT STEEPER THAN
0-5	6:1
5-20	3:1
OVER 20	2:1

SLOPE FLATTENING DETAIL (TYPICAL)

LR 1199+50 to 1203+75 MED.
LR 1588+10 to 1598+00 MED.
LR 1691+50 to 1710+00 MED.

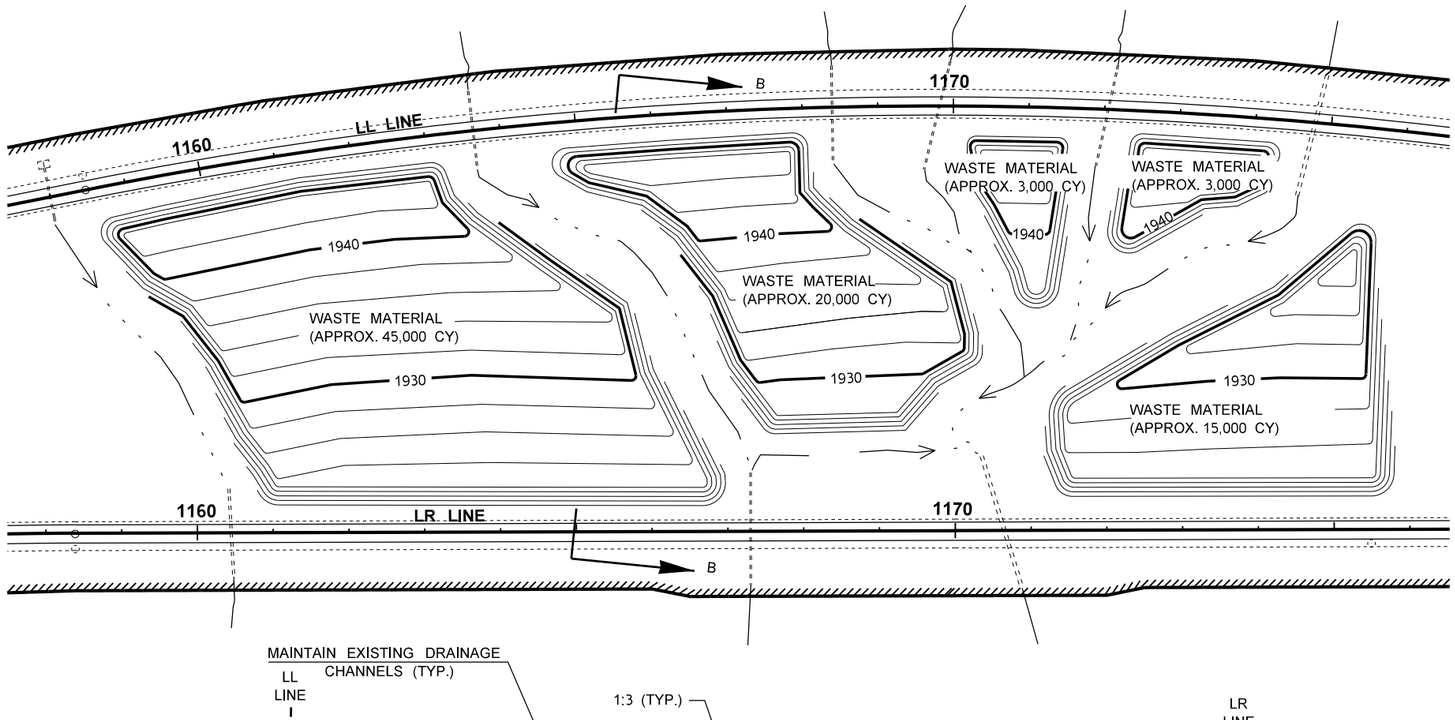
LR 1134+00 to 1138+00 RT.
LR 1333+50 to 1338+00 RT.
LR 1372+50 to 1376+00 RT.

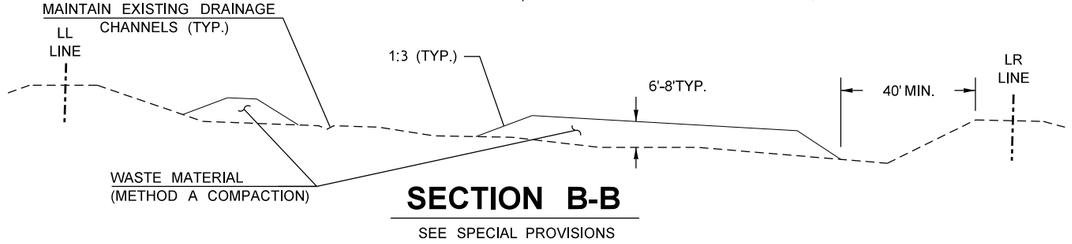
LL 1094+50 to 1097+00 MED.
LL 1177+50 to 1192+50 MED.
LL 1344+25 to 1353+50 MED.

LL 1135+50 to 1140+50 LT.
LL 1214+50 to 1220+00 LT.
LL 1241+00 to 1254+50 LT.

NOT TO SCALE

FILE NAME	C:\AAWork\Manuals\PPM\2012\Div 4 Example files\PPM_Div_4_Example_1-40.dgn				REGION NO. / STATE	FED.AID PROJ.NO.	Plot 16
TIME	3:30:39 PM				10 / WASH	NH-0000(000)	RS6
DATE	9/5/2012				JOB NUMBER		
PLOTTED BY	KerrT				00Z000		SHEET
DESIGNED BY	DESIGNER				CONTRACT NO.	LOCATION NO.	OF
ENTERED BY	CAD OPERATOR					XL-1234	SHEETS
CHECKED BY	TEAM LEADER				P.E. STAMP BOX / DATE	P.E. STAMP BOX / DATE	
PROJ. ENGR.	PROJECT ENGINEER				Washington State Department of Transportation	EXAMPLE 4-16	
REGIONAL ADM.	REGIONAL ADM.	REVISION	DATE	BY		ROADWAY SECTION	



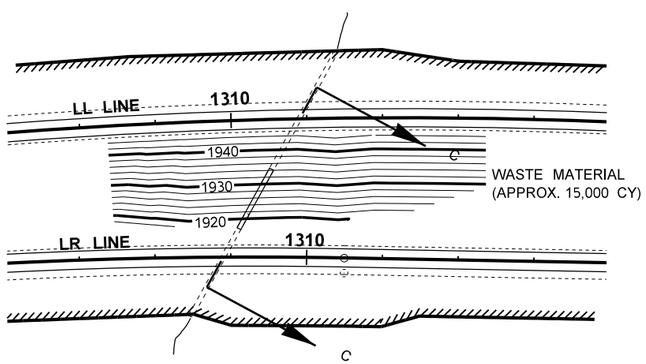


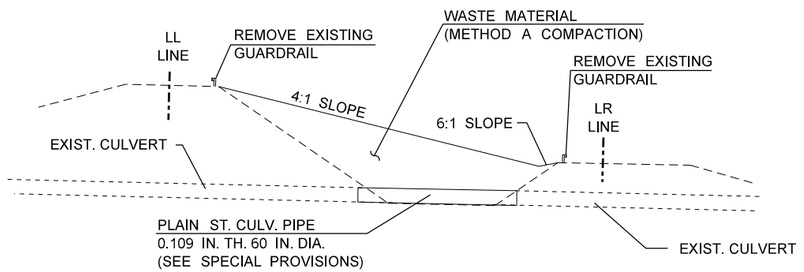
SECTION B-B

SEE SPECIAL PROVISIONS

NOTE:
BITUMINOUS MATERIAL SHALL NOT BE DEPOSITED AT THIS SITE.

NOT TO SCALE





SECTION C-C

SEE SPECIAL PROVISIONS

NOTE:
BITUMINOUS MATERIAL SHALL NOT BE DEPOSITED AT THIS SITE.

NOT TO SCALE

FILE NAME	C:\AAWork\Manuals\PPM\2012\Div 4 Example files\PPM_Div_4_Example_1-40.dgn				REGION NO. / STATE	FED.AID PROJ.NO.	Plot 17
TIME	3:30:46 PM				10 / WASH	NH-0000(000)	CG1
DATE	9/5/2012				JOB NUMBER		
PLOTTED BY	KerrT				00Z000		SHEET
DESIGNED BY	DESIGNER				CONTRACT NO.	LOCATION NO.	OF
ENTERED BY	CAD OPERATOR					XL-1234	SHEETS
CHECKED BY	TEAM LEADER						
PROJ. ENGR.	PROJECT ENGINEER						
REGIONAL ADM.	REGIONAL ADM.	REVISION	DATE	BY			

P.E. STAMP BOX — DATE

P.E. STAMP BOX — DATE

Washington State Department of Transportation

EXAMPLE 4-17

CONTOUR GRADING

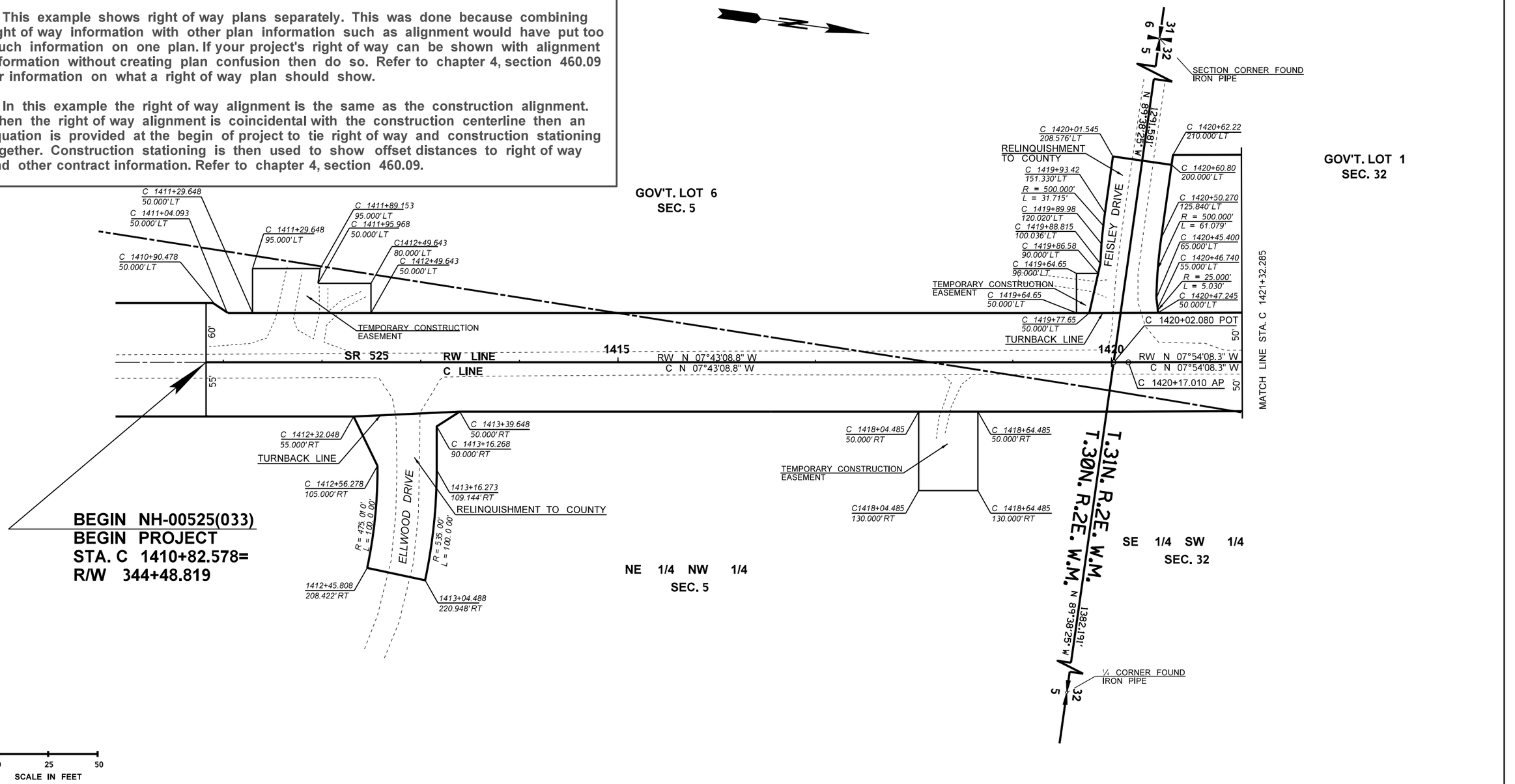
Notes to the Designer:

1) The need for this plan is to show right of way boundaries and provide data for surveying in right of way.

2) This example shows right of way plans separately. This was done because combining right of way information with other plan information such as alignment would have put too much information on one plan. If your project's right of way can be shown with alignment information without creating plan confusion then do so. Refer to chapter 4, section 460.09 for information on what a right of way plan should show.

3) In this example the right of way alignment is the same as the construction alignment. When the right of way alignment is coincidental with the construction centerline then an equation is provided at the begin of project to tie right of way and construction stationing together. Construction stationing is then used to show offset distances to right of way and other contract information. Refer to chapter 4, section 460.09.

T. 30 N., R. 2 E. W.M.



FILE NAME	C:\AAWork\Manuals\PPM\2012\Div 4 Example files\PPM_Div_4_Example_1-40.dgn				REGION NO. / STATE	FED.AID PROJ.NO.		Plot 18
TIME	3:30:51 PM				10 WASH	NH-0000(000)		RW1
DATE	9/5/2012				JOB NUMBER			
PLOTTED BY	KerrT				00Z000			SHEET
DESIGNED BY	DESIGNER				CONTRACT NO.	LOCATION NO.		OF
ENTERED BY	CAD OPERATOR					XL-1234		SHEETS
CHECKED BY	TEAM LEADER							
PROJ. ENGR.	PROJECT ENGINEER							
REGIONAL ADM.	REGIONAL ADM.	REVISION	DATE	BY				

DATE
P.E. STAMP BOX

DATE
P.E. STAMP BOX

Washington State
Department of Transportation

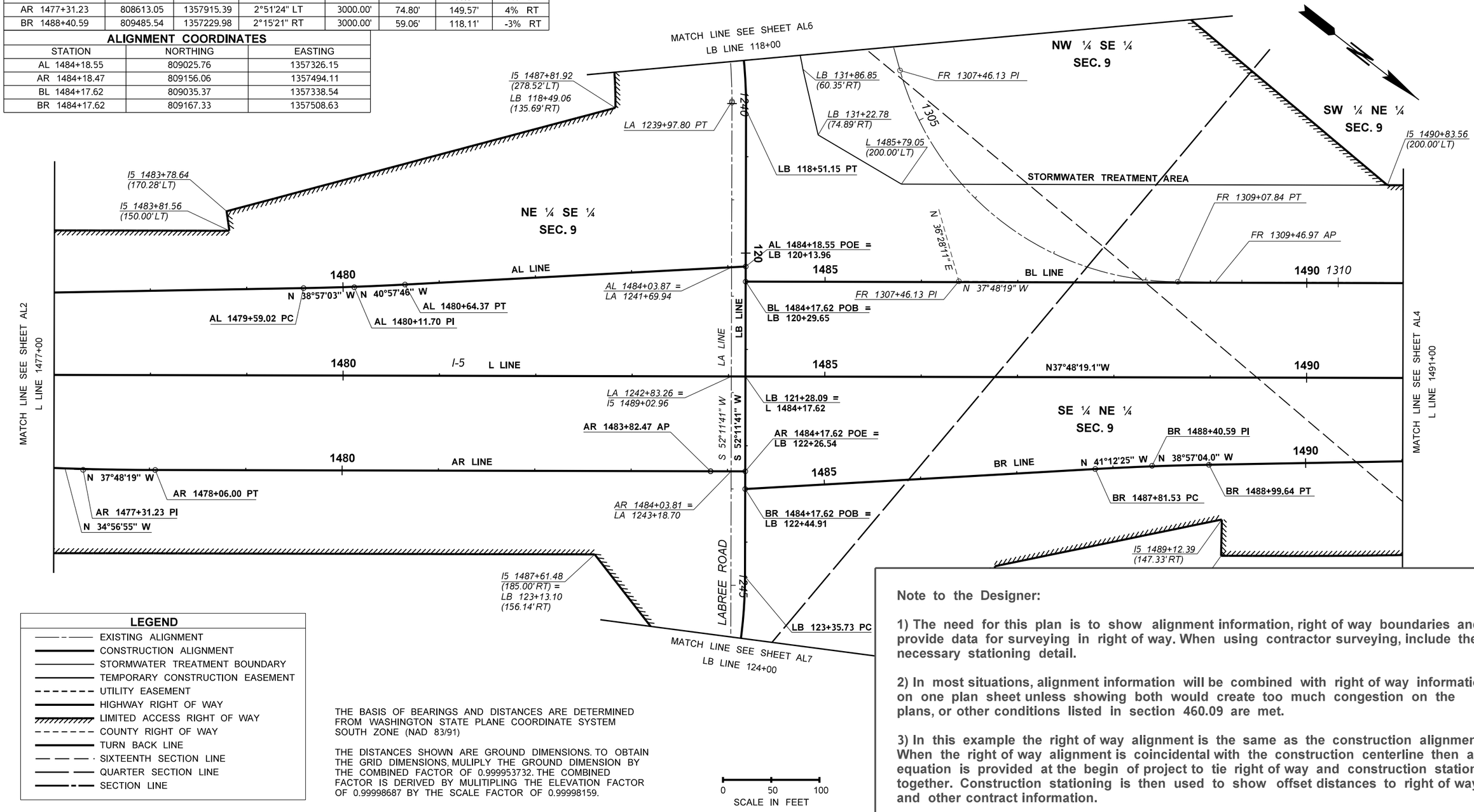
EXAMPLE 4-18

RIGHT OF WAY

T. 13N. R. 2W. W.M.

CURVE DATA							
P.I. STATION	NORTHING	EASTING	DELTA	RADIUS	TANGENT	LENGTH	SUPER
FR 1307+46.13	809209.67	1357202.23	74°16'30" LT	300.00'	227.20'	388.90'	
AL 1480+11.70	808718.52	1357592.87	2°00'42" LT	3000.00'	52.68'	105.34'	4% LT
AR 1477+31.23	808613.05	1357915.39	2°51'24" LT	3000.00'	74.80'	149.57'	4% RT
BR 1488+40.59	809485.54	1357229.98	2°15'21" RT	3000.00'	59.06'	118.11'	-3% RT

ALIGNMENT COORDINATES		
STATION	NORTHING	EASTING
AL 1484+18.55	809025.76	1357326.15
AR 1484+18.47	809156.06	1357494.11
BL 1484+17.62	809035.37	1357338.54
BR 1484+17.62	809167.33	1357508.63



LEGEND

- EXISTING ALIGNMENT
- CONSTRUCTION ALIGNMENT
- STORMWATER TREATMENT BOUNDARY
- TEMPORARY CONSTRUCTION EASEMENT
- UTILITY EASEMENT
- HIGHWAY RIGHT OF WAY
- LIMITED ACCESS RIGHT OF WAY
- COUNTY RIGHT OF WAY
- TURN BACK LINE
- SIXTEENTH SECTION LINE
- QUARTER SECTION LINE
- SECTION LINE

THE BASIS OF BEARINGS AND DISTANCES ARE DETERMINED FROM WASHINGTON STATE PLANE COORDINATE SYSTEM SOUTH ZONE (NAD 83/91)

THE DISTANCES SHOWN ARE GROUND DIMENSIONS. TO OBTAIN THE GRID DIMENSIONS, MULIPLY THE GROUND DIMENSION BY THE COMBINED FACTOR OF 0.999953732. THE COMBINED FACTOR IS DERIVED BY MULITIPLING THE ELEVATION FACTOR OF 0.99998687 BY THE SCALE FACTOR OF 0.99998159.

0 50 100
SCALE IN FEET

Note to the Designer:

1) The need for this plan is to show alignment information, right of way boundaries and provide data for surveying in right of way. When using contractor surveying, include the necessary stationing detail.

2) In most situations, alignment information will be combined with right of way information on one plan sheet unless showing both would create too much congestion on the plans, or other conditions listed in section 460.09 are met.

3) In this example the right of way alignment is the same as the construction alignment. When the right of way alignment is coincidental with the construction centerline then an equation is provided at the begin of project to tie right of way and construction stationing together. Construction stationing is then used to show offset distances to right of way and other contract information.

FILE NAME	C:\AAWork\Manuals\PPM\2012\Div 4 Example files\PPM_Div4_PS_ALRW.dgn				REGION NO.	STATE	FED.AID PROJ.NO.
TIME	3:26:31 PM				10	WASH	NH-0000(000)
DATE	9/5/2012				JOB NUMBER		
PLOTTED BY	KerrT				00Z000		
DESIGNED BY	DESIGNER				CONTRACT NO.		LOCATION NO.
ENTERED BY	CAD OPERATOR						SP1234
CHECKED BY	TEAM LEAD						
PROJ. ENGR.	PROJECT ENGINEER						
REGIONAL ADM.	REGIONAL ADM.	REVISION	DATE	BY			

P.E. STAMP BOX — DATE

P.E. STAMP BOX — DATE

Washington State Department of Transportation

EXAMPLE 4-19
I-5 AND LABREE RD INTERCHANGE
EXAMPLE PROJECT

ALIGNMENT AND RIGHT OF WAY PLAN

Plot 3

PLAN REF NO
AL3

SHEET OF SHEETS

QUANTITY TABULATION - SITE PREPARATION

NOTE:
THE FIRST NUMBER OF THE "CODE" BELOW REFERS TO THE SHEET NO. OR THE SHEET REFERENCE NO. SHOWING THE CONSTRUCTION FEATURE.

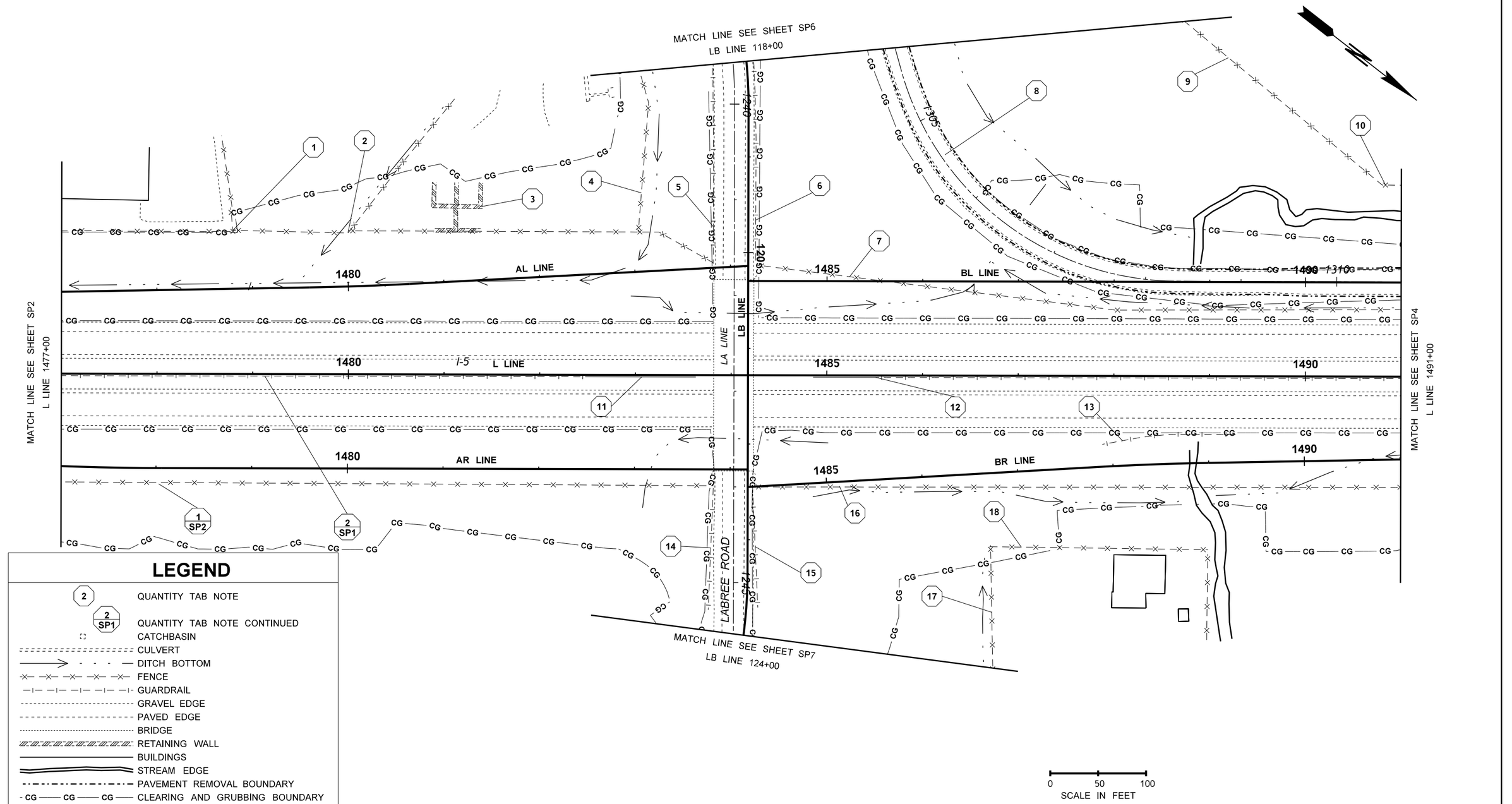
THE SECOND NUMBER REFERS TO THE CONSTRUCTION FEATURE FOUND ON THAT SHEET.

CODE	LOCATION ↘ \ UNIT OF MEASURE ➢	REMOVAL OF STRUCTURE AND OBSTRUCTION	REMOVING CONC. BARRIER	REMOVE ASPHALT CONC. PAVEMENT		REMOVING GAURDRAIL	REMOVING GAURDRAIL ANCHOR	REMOVING CHAINLINK FENCE	REMOVING WIRE FENCE								SEE GENERAL NOTES
		L.S.	L.F.	S.Y.		L.F.	EACH	L.F.	L.F.								
SP1-1	L 1450+00 (RT) TO L 1457+45 (RT)					745	1										
SP1-2	L 1458+11 (LT) TO L 1482+50 (RT)					2439	1										
SP2-1	L 1468+59 (117 RT) TO L 1483+81 (115 RT)								1522								
SP2-2	L 1471+21 (169 RT) TO L 1472+58 (185 RT)								146								
SP2-3	L 1475+02 (173 RT) TO L 1475+28 (147 RT)								105								
SP2-4	L 1475+38 (185 RT) TO L 1475+74 (114 RT)								110								
SP3-1	L 1478+79 (150 LT) TO L 1483+81 (117 LT)								510								
SP3-2	L 1479+99 (147 LT) TO L 1480+52 (217 LT)								87								
SP3-3	L 1481+13 (175 LT)	1															
SP3-4	LB 116+23 (116 RT) TO LB 119+78.68 (115 LT)								310								
SP3-5	LB 116+76 (40 RT) TO LB 120+12 (36 RT)					325	1										
SP3-6	LB 117+33 (11 LT) TO LB 120+11 (8 LT)					275	1										
SP3-7	L 1484+26 (115 LT) TO L 1520+00 (71 LT)								3575								
SP3-8	FR 1300+08 (90 RT) TO FR 1346+23 (15 RT)			14753													
SP3-9	LB 108+85 (84 RT) TO LB 119+28 (662 LT)								1476								
SP3-10	L 1490+79 (200 LT) TO L 1492+21 (199 LT)								142								
SP3-11	L 1482+50 (2 RT) TO L 1490+51 (2 RT)		301														
SP3-12	L 1490+51 (2 LT) TO L 1520+00 (2 RT)					3449											
SP3-13	L 1487+88 (71 RT) TO L 1489+32 (60 RT)					150	2										
SP3-14	LB 122+44 (36 RT) TO LB 123+77 (39 RT)					125	1										
SP3-15	LB 122+44 (5 LT) TO LB 123+70 (12 LT)					125	1										
SP3-16	L 1484+24 (116 RT) TO L 1489+10 (110 RT)								3607								
SP3-17	LB 123+06 (254 LT) TO LB 124+50 (278 LT)							204									
SP3-18	L 1486+71 (178 RT) TO L 1487+57 (180 RT)							86									
SP4-1	L 1492+99 (188 LT) TO L 1520+00 (188 LT)								2739								
SP6-1	HAM 1729+56 (75 RT) TO HAM 1731+80 (41 RT)								220								
SP6-2	HAM 1730+73 (47 RT) TO HAM 1730+83 (93 RT)	1															
SP6-3	HAM 1730+90 (76 RT) TO HAM 1731+06 (84 RT)	1															
SP6-4	H 1730+67 TO H 1732+14			486													
SP6-5	LB 106+75 TO LB 110+80			1127													
	SHEET TOTAL	3	301	16366		7633	8	290	14549								

GENERAL NOTES:

1. See Special Provision, "FILLING OF CULVERTS AND SEWER PIPE".
2. See Special Provision "REMOVING DRAINAGE STRUCTURE".
3. See Special Provision, "REMOVAL OF STRUCTURES AND OBSTRUCTIONS".
4. See Special Provision, "TEMPORARY TRAFFIC CONTROL".
5. Culverts in the median that must be filled are to remain functional until no longer needed for Stage 1 drainage.
6. Culvert must remain functional until Structure Code DR8-34 & DR8-35 are operational.
7. Remove enough of this culvert to construct shoring for Wall #1 Overexcavation

						REGION NO.	STATE	FED. AID PROJ. NO.		EXAPLE 4-20 I-5 AND LABREE RD INTERCHANGE SAMPLE PROJECT	QT
DESIGNED BY	DESIGNER					10	WASH				SHEET
ENTERED BY	CAD OPERATOR	05/27/09				JOB NUMBER		NH-0000(000)	Washington State Department of Transportation		OF
CHECKED BY	TEAM LEAD					00Z000				QUANTITY TABULATION - SITE PREPARATION	
PROJ. ENGR.	PROJECT ENGINEER					CONTRACT NO.					SHEETS
REGION ADM.	REGIONAL ADM.										
		DATE	**DATE**	**REVISION**	**BY**						



FILE NAME	C:\AAWork\Manuals\PPM\2012\Div 4 Example files\PPM_Div4_PS_SP.dgn				REGION NO. / STATE	FED.AID PROJ.NO.	Plot 3
TIME	3:09:55 PM				10 WASH	NH-0000(000)	PLAN REF NO SP3
DATE	9/5/2012				JOB NUMBER 00Z000		
PLOTTED BY	KerrT				CONTRACT NO.	LOCATION NO. XL-1234	SHEET OF SHEETS
DESIGNED BY	DESIGNER						
ENTERED BY	CAD OPERATOR						
CHECKED BY	TEAM LEAD						
PROJ. ENGR.	PROJECT ENGINEER						
REGIONAL ADM.	REGIONAL ADM.	REVISION	DATE	BY			

P.E. STAMP BOX — DATE

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Washington State Department of Transportation

EXAMPLE 4-21
I-5 AND LABREE RD INTERCHANGE SAMPLE PROJECT

SITE PREPARATION PLAN

ROADWAY SECTION U | SEE BRIDGE SECTION | ROADWAY SECTION V | ROADWAY SECTION T

5.00% LT

LB LINE

-2.00% LT & RT

-5.00% RT

CENTERLINE PROFILE GRADE & PIVOT POINT

MA LINE (MAURIN RD)

LB 105+59.00 END NORMAL CROWN
LB 106+35.00 REVERSE CROWN
LB 106+91.00 BEGIN FULL SUPER
LB 112+21.00 END FULL SUPER
LB 113+08.00 REVERSE CROWN
LB 114+24.00 BEGIN NORMAL CROWN
LB 116+33.00 END NORMAL CROWN
LB 117+37.00 REVERSE CROWN
LB 118+13.00 BEGIN FULL SUPER
LB 120+85.00 END FULL SUPER
LB 122+10.00 REVERSE CROWN
LB 123+78.00 BEGIN NORMAL CROWN

DATUM
(NAVD) 88

240
230
220
210
200

LB LINE (LABREE RD)

-0.1765%
+4.0537%
-2.1030%
+1.7315%
+0.6049%
-0.5861%
+0.8322%

100.00 VC
50.00 VC
125.00 VC
150.00 VC
150.00 VC
150.00 VC
150.00 VC

EL. 204.13'
EL. 232.59'
+2.1029%
EL. 234.55'
EL. 222.78'
EL. 222.85'
EL. 225.98'
EL. 227.02'
EL. 226.37'

CENTERLINE PROFILE GRADE

EXISTING GROUND

LB 103+80.08 EL. 204.48'
LB 105+80.00 BVC EL. 204.13'
LB 106+80.00 VPI EL. 203.95'
LB 107+80.00 EVC EL. 208.00'
LB 113+25.10 BVC EL. 230.10'
LB 113+75.10 VPI EL. 232.13'
LB 114+25.10 EVC EL. 233.18'
LB 114+34.26 BVC EL. 233.37'
VPI 115+59.26 EL. 236.00'
LB 116+84.26 EVC EL. 233.37'
LB 121+33.00 BVC EL. 223.93'
LB 122+83.00 VPI EL. 220.78'
LB 124+33.00 EVC EL. 223.38'
BVC 125+11.90 EL. 224.73'
LB 125.85.90 VPI EL. 226.03'
LB 126+60.90 EVC EL. 226.48'
LB 127+60.90 BVC EL. 226.79'
LB 127+83.84 VPI EL. 227.24'
LB 128+61.38 EVC EL. 226.80'
LB 129+10.42 BVC EL. 226.51'
LB 129+89.50 VPI EL. 226.07'
LB 130+61.10 EVC EL. 226.70'
LB 132+46.68 EL. 228.35'

CLEARING AND GRUBBING 2.29 ACRE
ROADWAY EMBANKMENT INCL. HAUL 9453 C.Y.
EMBANKMENT COMPACTION 43463 C.Y.
SPECIAL BORROW INCL. HAUL 49982 C.Y.
SEEDING, FERTILIZING AND MULCHING 2.25 ACRE

CLEARING AND GRUBBING 1.41 ACRE
ROADWAY EXCAVATION INCL. HAUL 10435 C.Y.
EMBANKMENT COMPACTION 30285 C.Y.
SPECIAL BORROW INCL. HAUL 34827 C.Y.
SEEDING, FERTILIZING AND MULCHING 1.30 ACRE

CLEARING AND GRUBBING 1.38 ACRE
ROADWAY EXCAVATION INCL. HAUL 2791 C.Y.
EMBANKMENT COMPACTION 193 C.Y.
SPECIAL BORROW INCL. HAUL 222 C.Y.
SEEDING, FERTILIZING AND MULCHING 1.20 ACRE

104+00 106+00 108+00 110+00 112+00 114+00 116+00 118+00 120+00 122+00 124+00 126+00 128+00 130+00 132+00

Notes to the Designer:

1) Bid items listed in the profile sheets for ten station totals are listed in the order as shown in the standard item table.

2) Note that the import embankment item, gravel borrow, only shows up in the one set of ten station totals. That is because gravel borrow will be the sole source of embankment material in this ten station total - roadway excavation will not be used for embankment. You only show embankment material, other than roadway excavation, in ten station totals when it is the sole source of embankment material. Refer to 700.02.

FILE NAME								Plot 8
TIME								PLAN REF. NO. RP8
DATE								
PLOTTED BY								
DESIGNED BY	DESIGNER							
ENTERED BY	CAD OPERATOR							
CHECKED BY	TEAM LEAD							
PROJ. ENGR.	PROJECT ENGINEER							
REGIONAL ADM.	REGIONAL ADM.	REVISION	DATE	BY				SHEET OF SHEETS

REGION NO.	STATE	FED.AID PROJ.NO.
10	WASH	NH-0000(000)
JOB NUMBER		
00Z000		
CONTRACT NO.		LOCATION NO.
		SP1234

DATE
P.E. STAMP BOX

DATE
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Washington State Department of Transportation

EXAMPLE 4-22
I-5 AND LABREE RD INTERCHANGE
EXAMPLE PROJECT

ROADWAY PROFILE

STRUCTURE NOTES - DRAINAGE

NOTE:
THE FIRST NUMBER OF THE "CODE DESIGNATION" BELOW REFERS TO THE SHEET NO. OR THE SHEET REFERENCE NO. SHOWING THE DRAINAGE FEATURE.

THE SECOND NUMBER REFERS TO THE DRAINAGE FEATURE FOUND ON THAT SHEET.

CODE	LOCATION ↘ \ UNIT OF MEASURE ➢	REMOVING DRAINAGE STRUCTURE EACH	DITCH EXCAVATION INCL. HAUL C.Y.	GRATE INLET TYPE 2 EACH	QUARRY SPALLS TON	DRAIN PIPE 6 IN. DIAM. L.F.		SCHEDULE A CULV. PIPE 12 IN. DIAM. L.F.	SCHEDULE A CULV. PIPE 18 IN. DIAM. L.F.	SCHEDULE A CULV. PIPE 24 IN. DIAM. L.F.	CL. V REINF. CONC. CULV. PIPE 36 IN. DIAM. L.F.		BORING AND JACKING 30 IN. PLAIN STEEL CULVERT PIPE L.F.	CATCH BASIN TYPE 1L EACH	CATCH BASIN TYPE 2 54 IN. DIAM. EACH	TESTING STORM SEWER PIPE L.F.	SEE GENERAL NOTES
DR1-1	L 1455+04.87 (0.85 LT)																14
DR1-2	L 1455+04.17 (79.95 LT) TO L 1455+03.20 (133.85 LT)							29									1, 9, 11
DR1-3	L 1459+98.73 (0.85 LT)																14
DR1-4	L 1459+96.86 (82.68 LT) TO L 1459+95.44 (132.75 LT)							36									1, 9, 11
DR2-1	L 1463+98.25 (2.3 LT)	1															14
DR2-2	L 1463+97.62 (92.6 LT) TO L 1463+97.05 (138.04 LT)							33									1, 9, 11
DR2-3	L 1467+85.76 (112.37 RT) TO L 1467+95.68 (137.79 LT)												233				9
DR2-4	L 1467+97.54 (92.63 RT) TO L 1467+97.76 (6.85 RT)																7
DR2-5	L 1467+98.72 (0.59 RT)	2															
DR2-6	L 1467+98.72 (0.59 RT) TO L 1467+97.98 (105.43 LT)																7
DR2-7	AR 1473+96.44 (48.51 RT)																
DR2-8	L 1473+97.88 (1.56 LT) TO L 1473+96.63 (86.41 LT)																14
DR2-9	L 1473+96.63 (86.41 LT) TO L 1473+95.06 (130.6 LT)																1, 9, 11
DR2-10	AL 1473+99.78 (54.89 LT) TO AL 1483+00.88 (175.45 LT)							43									
DR3-1	LB 131+60.14 (127.07 LT) TO LB 135+86.41 (73.55 RT)																
DR3-2	LB 131+60.14 (126.23 LT) TO LB 131+60.57 (83.61 LT)										56						1, 9, 11
DR3-3	LB 131+61.67 (68.75 RT) TO LB 131+62.04 (147.96 RT)										102						1, 9, 11
DR3-4	LB 129+94.43 (34.79 LT)	1															
DR3-5	LB 129+92.29 (2.64 RT)	1															
DR3-6	LB 129+73.18 (59.08 LT) TO LB 129+72.24 (66.57 RT)													1		98	1, 2, 6, 14
DR3-7	BL 1484+84.19 (1.89 LT) TO BL 1484+73.14 (47.06 LT)														1	56	1, 2, 8, 14
DR3-8	BL 1484+73.14 (47.06 LT) TO BL 1486+47.76 (23.12 LT)														1	176	1, 2, 8, 14
DR3-9	BL 1486+47.76 (23.12 LT) TO BL 1486+47.13 (42.3 RT)															65	1, 2, 13
DR3-10	BL 1484+86.92 (25.36 RT) TO BL 1486+63.71 (93.74 LT)					213											1, 9
DR3-11	BL 1486+74.22 (25.5 LT) TO BL 1487+11.74 (80.07 LT)																7
DR3-12	L 1478+97.01 (0.66 LT) TO L 1478+94.00 (87.83 LT)	1															7
DR3-13	L 1478+96.83 (54.5 LT) TO L 1479+97.17 (54.5 LT)													1		100	1, 2, 6, 14
DR3-14	L 1479+97.17 (54.5 LT) TO L 1480+97.21 (54.5 LT)													1		100	1, 2, 6, 14
DR3-15	L 1480+97.21 (54.5 LT) TO L 1481+97.21 (54.5 LT)													1		100	1, 2, 6, 14
DR3-16	L 1481+97.21 (54.5 LT) TO L 1482+97.26 (54.5 LT)													1		100	1, 2, 6, 14
DR3-17	L 1482+97.26 (54.5 LT) TO L 1485+97.23 (54.51 LT)													1		300	1, 2, 6, 14
DR3-18	L 1485+97.23 (54.51 LT) TO L 1486+47.12 (56.15 LT)													1		50	1, 2, 6, 14
DR3-19	L 1486+47.12 (56.15 LT) TO L 1488+72.27 (54.5 LT)													1		224	1, 2, 6, 14
	SHEET TOTAL	6				213		141			158		233	8	2	1369	

GENERAL NOTES:

1. SEE PIPE ZONE BEDDING AND BACKFILL - STANDARD PLAN B-55.20-00.
2. SEE CATCH BASIN TYPE 1L - STANDARD PLAN B-5.40-00.
3. SEE GRATE INLET TYPE 2 - STANDARD PLAN B-35.40-00.
4. SEE FRAME AND DUAL VANED GRATED FOR GRATE INLET TYPE 2 - STANDARD PLAN B-40.40-00 ROTATED INSTALLATION.
5. SEE CATCH BASIN TYPE 2 - STANDARD PLAN B-10.20-00.
6. SEE RECTANGULAR FRAME (REVERSIBLE) - STANDARD PLAN B-30.10-00
7. EXISTING PIPE OR CULVERT TO BE REMOVED.
8. SEE RECTANGULAR VANED GRATE - STANDARD PLAN B-30.30-00.
9. SEE BEVELED END SECTIONS - STANDARD PLAN B-70.20-00.
10. SEE SPECAIL PROVION, "FILLING OF CULVERTS AND SEWER PIPE".
11. CONNECTION DETAILS FOR DISSIMILAR CULVERT PIPE - STANDARD PLAN B-60.20-00.
12. CULVERTS IN THE MEDIAN THAT MUST BE FILLED ARE TO REMAIN FUNCTIONAL UNTIL NO LONGER NEEDED FOR STAGE 1 DRAINAGE.
13. SEE MANHOLE TYPE 1 - STANDARD PLAN B-15.20-00.
14. SEE STORM DRAIN INLET PROTECTION - STANDARD PLAN I-7.
15. SEE SPECAIL PROVION, "ROMOVING DRAINAGE STRUCTURE".
16.
17. CLASS 3000 CONCRETE TO BE SUBSTITUTED FOR GRAVEL BACKFILL FOR PIPE ZONE BEDDING.
18.
19. SEE SPLASH PAD DETAILS ON SHEET DD13.

DESIGNED BY	DESIGNER				
ENTERED BY	CAD OPERATOR				
CHECKED BY	TEAM LEAD				
PROJ. ENGR.	PROJECT ENGINEER				
REGION ADM.	REGIONAL ADM.				
		DATE	**DATE**	**REVISION**	**BY**

REGION NO.	STATE	FED. AID PROJ. NO.
10	WASH	NH-0000(000)
JOB NUMBER		
00Z000		
CONTRACT NO.		

Washington State Department of Transportation

EXAMPLE 4-23
I-5 AND LABREE RD INTERCHANGE
SAMPLE PROJECT

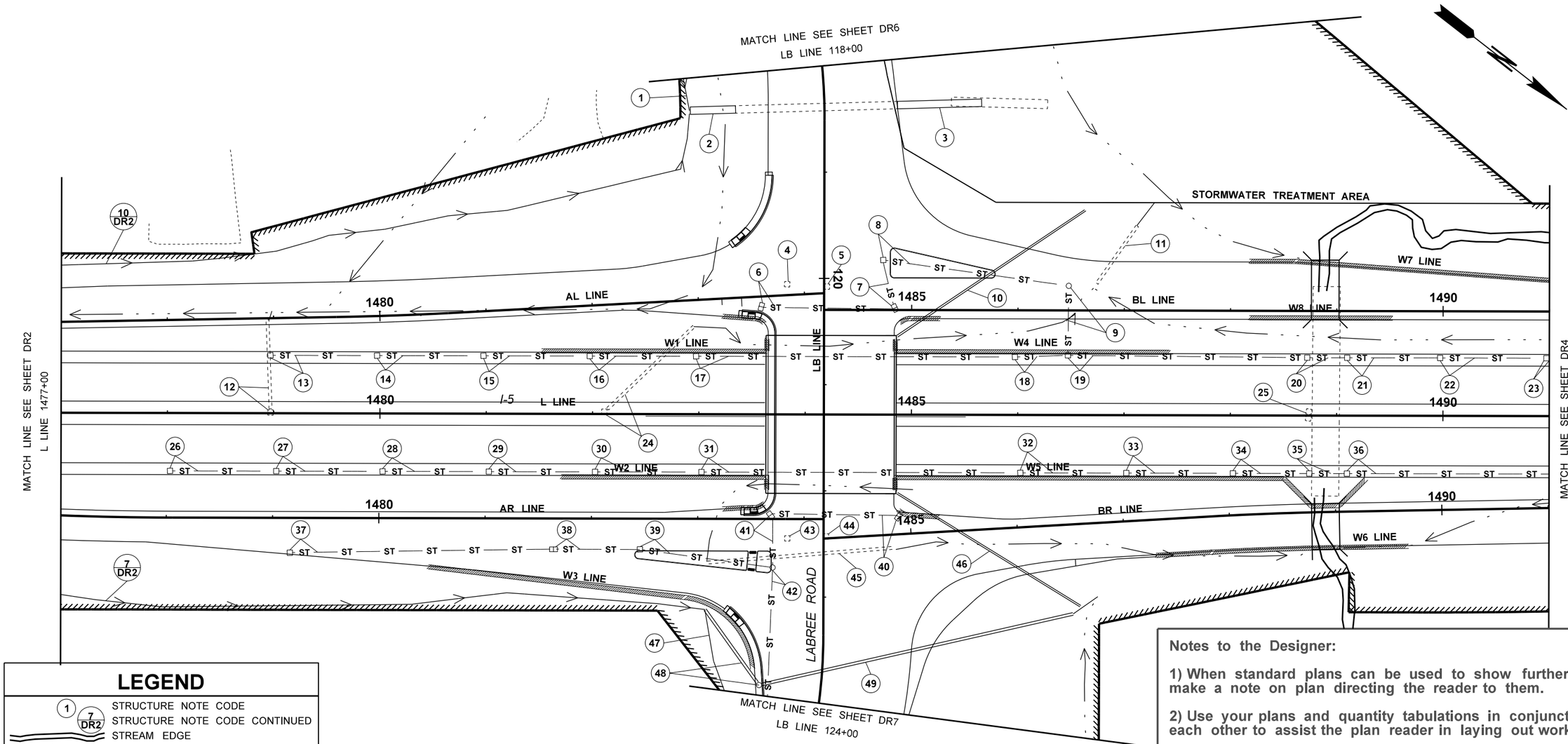
STRUCTURE NOTES - DRAINAGE

NT 1

SHEET

OF

SHEETS



LEGEND

- 1 — STRUCTURE NOTE CODE
- 7 DR2 — STRUCTURE NOTE CODE CONTINUED
- STREAM EDGE
- EXISTING DITCH BOTTOM
- EXISTING CATCH BASIN
- EXISTING CULVERT
- DITCH BOTTOM
- ST — ST — STORM SEWER LINE
- BOX CULVERT
- CULVERT
- CATCH BASIN
- GRATE INLET
- MANHOLE

Notes to the Designer:

1) When standard plans can be used to show further detail, make a note on plan directing the reader to them.

2) Use your plans and quantity tabulations in conjunction with each other to assist the plan reader in laying out work.

3) In this example the structure notes along with standard plans are used to provide other pertinent information which reduces the need to duplicate the information on the plan sheet.

4) Drainage codes on the plan sheet correspond with the code numbers on the structure notes sheet. The structure notes sheets provides the stationing and offset distances and quantity of the item, and they also provide other pertinent information in the general notes section to assist the reader.

FILE NAME	C:\AAWork\Manuals\PPM\2012\Div 4 Example files\PPM_Div4_PS_DR.dgn				REGION NO. 10	STATE WASH	FED.AID PROJ.NO. NH-0000(000)	Plot 3
TIME	1:53:00 PM				JOB NUMBER 00Z000			PLAN REF NO DR3
DATE	9/6/2012				CONTRACT NO.		LOCATION NO. XL-1234	SHEET OF SHEETS
PLOTTED BY	KerrT							
DESIGNED BY	DESIGNER							
ENTERED BY	CAD OPERATOR							
CHECKED BY	TEAM LEAD							
PROJ. ENGR.	PROJECT ENGINEER							
REGIONAL ADM.	REGIONAL ADM.	REVISION	DATE	BY				

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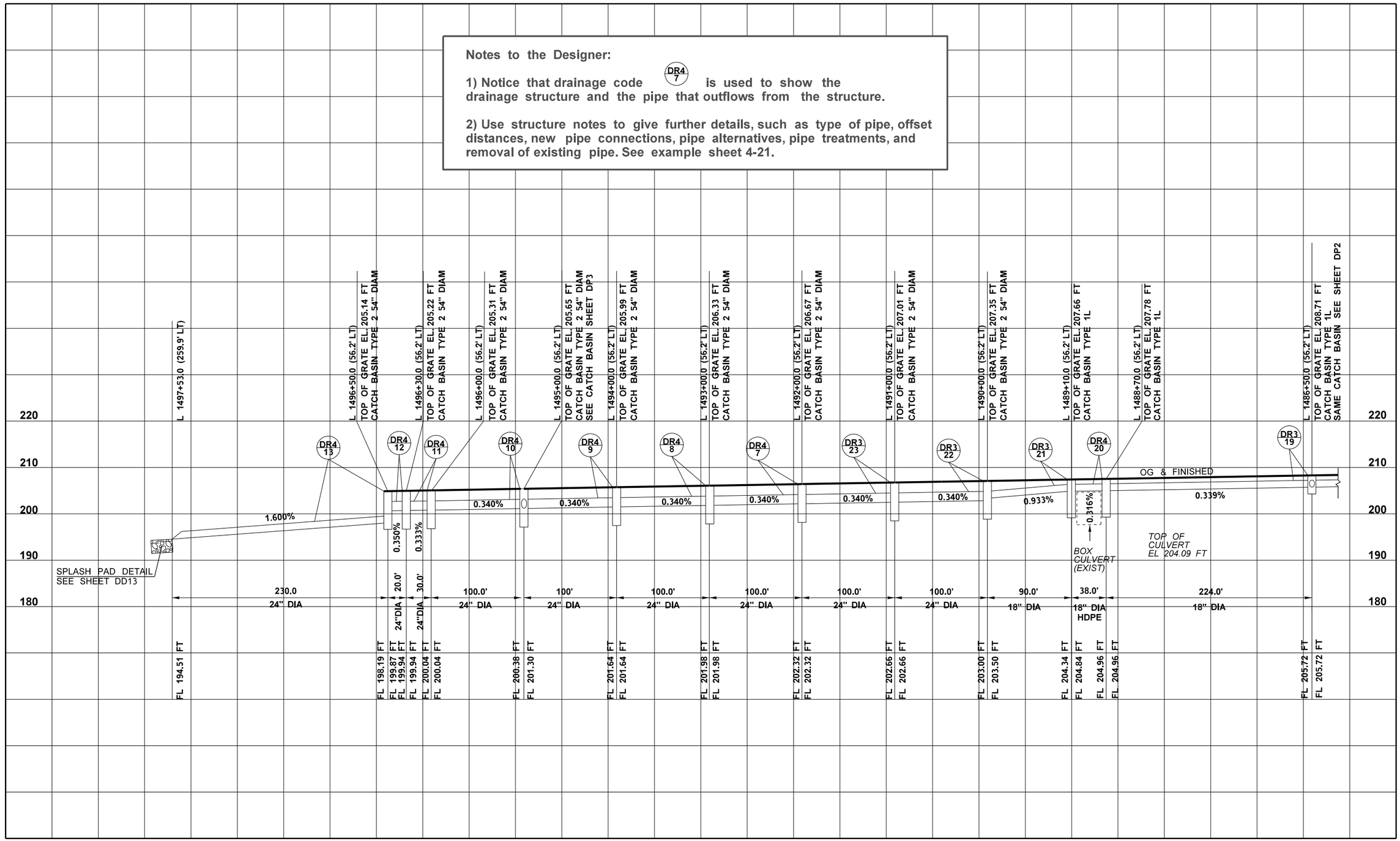
EXAMPLE 4-24
I-5 AND LABREE RD INTERCHANGE
SAMPLE PROJECT

Drainage Plan

Notes to the Designer:

1) Notice that drainage code DR4 7 is used to show the drainage structure and the pipe that outflows from the structure.

2) Use structure notes to give further details, such as type of pipe, offset distances, new pipe connections, pipe alternatives, pipe treatments, and removal of existing pipe. See example sheet 4-21.



FILE NAME	C:\AAWork\Manuals\PPM\2012\Div 4 Example files\PPM_Div4_PR_DP.dgn				REGION NO. / STATE	FED.AID PROJ.NO.	Plot 2
TIME	3:28:05 PM				10 / WASH	NH-0000(000)	PLAN REF. NO. DP2
DATE	9/5/2012				JOB NUMBER 00Z000		
PLOTTED BY	KerrT				CONTRACT NO.	LOCATION NO. XL-1234	SHEET OF SHEETS
DESIGNED BY	DESIGNER						
ENTERED BY	CAD OPERATOR						
CHECKED BY	TEAM LEAD						
PROJ. ENGR.	PROJECT ENGINEER						
REGIONAL ADM.	REGIONAL ADM.	REVISION	DATE	BY			

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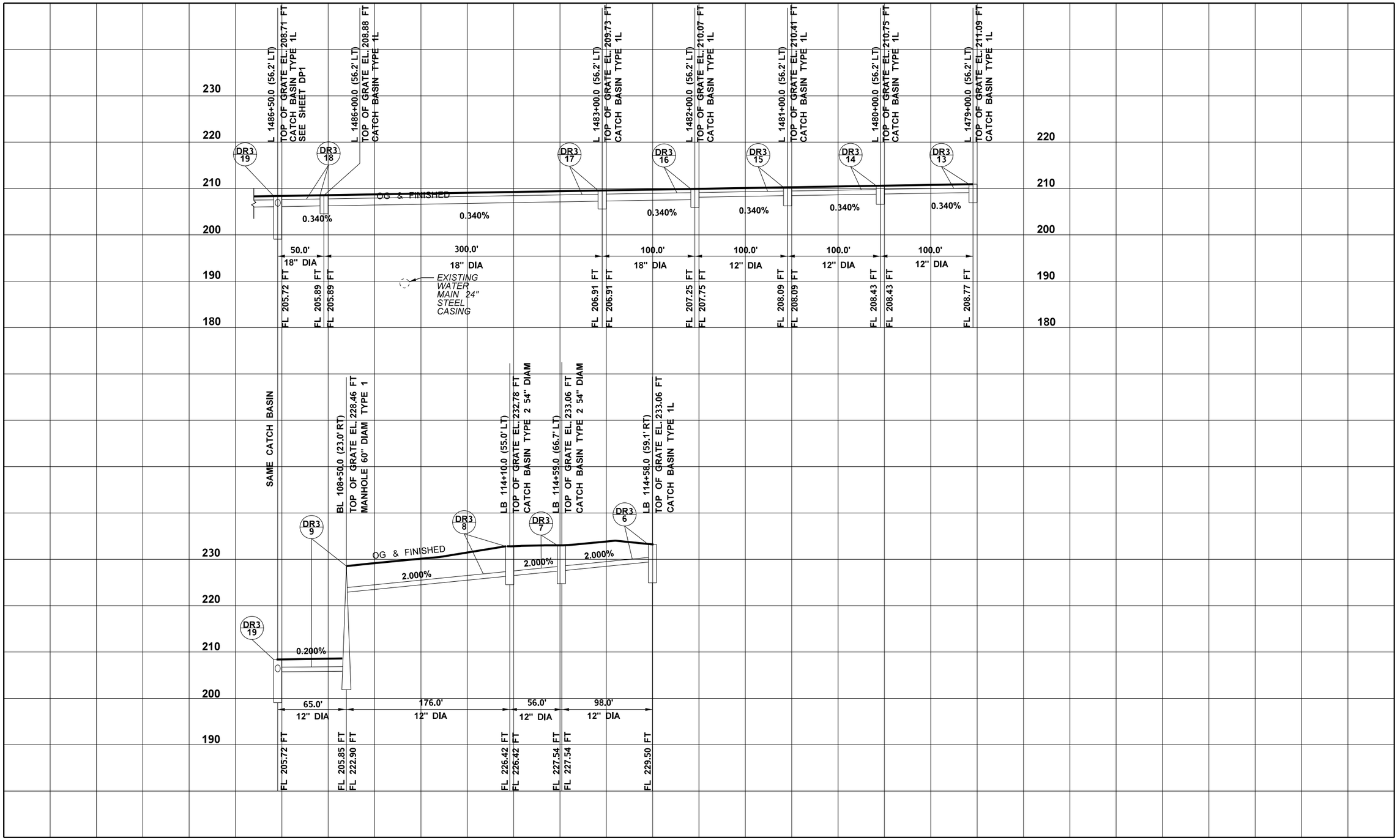
EXAMPLE 4-25
I-5 AND LABREE RD INTERCHANGE
SAMPLE PROJECT

DRAINAGE PROFILE



FILE NAME	C:\AAWork\Manuals\PPM\2012\Div 4 Example files\PPM_Div4_PR_DP.dgn				REGION NO.	STATE	FED.AID PROJ.NO.	Plot 3
TIME	3:28:12 PM				10	WASH	NH-0000(000)	PLAN REF. NO. DP3
DATE	9/5/2012				JOB NUMBER			
PLOTTED BY	KerrT				00Z000			SHEET
DESIGNED BY	DESIGNER				CONTRACT NO.		LOCATION NO.	OF
ENTERED BY	CAD OPERATOR						XL-1234	SHEETS
CHECKED BY	TEAM LEAD							
PROJ. ENGR.	PROJECT ENGINEER							
REGIONAL ADM.	REGIONAL ADM.	REVISION	DATE	BY				

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P.E. STAMP BOX — DATE

Washington State Department of Transportation

EXAMPLE 4-26
I-5 AND LABREE RD INTERCHANGE
SAMPLE PROJECT

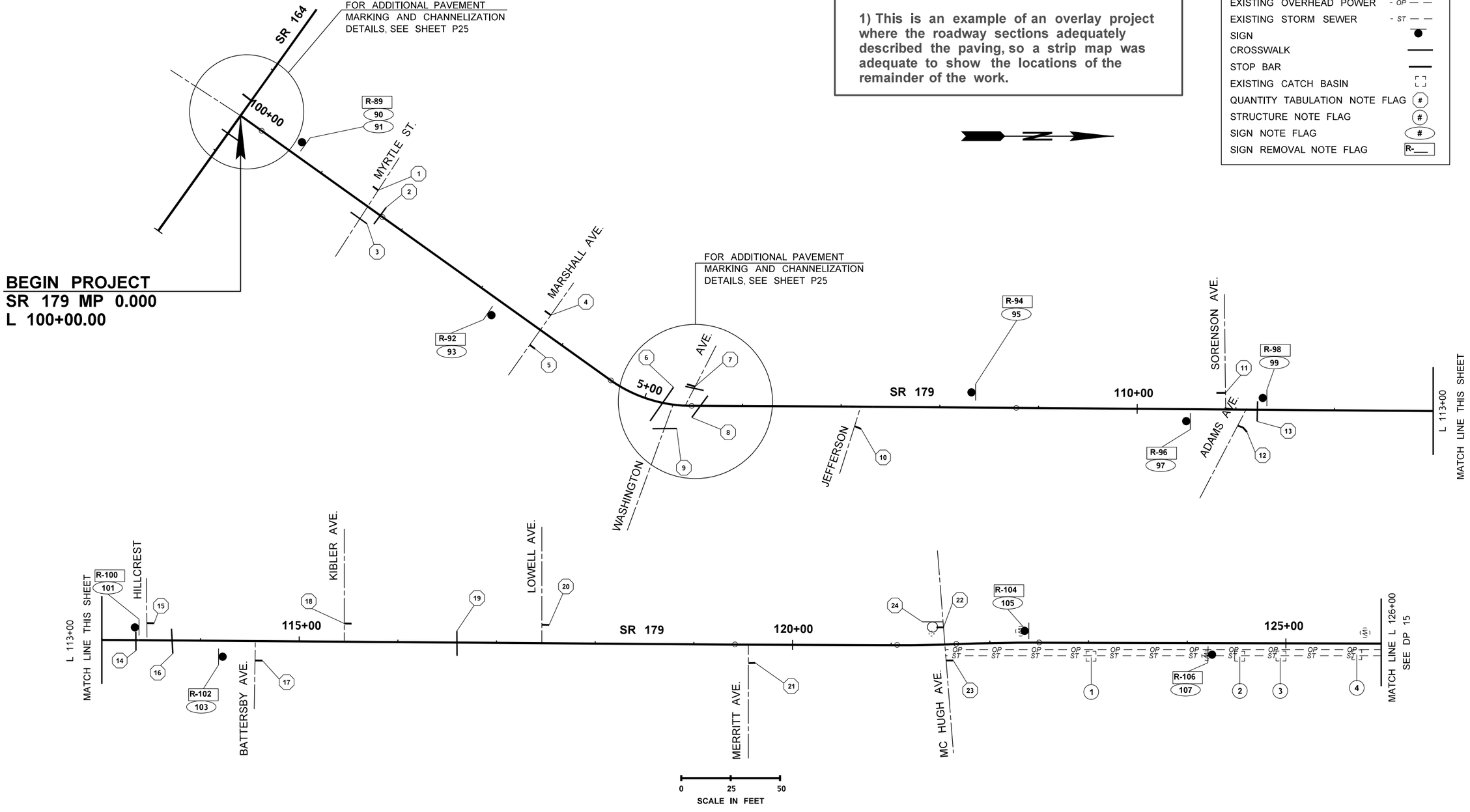
DRAINAGE PROFILE

Notes to the Designer:

1) This is an example of an overlay project where the roadway sections adequately described the paving, so a strip map was adequate to show the locations of the remainder of the work.

LEGEND

- EXISTING MONUMENT
- EXISTING OVERHEAD POWER - OP — —
- EXISTING STORM SEWER - ST — —
- SIGN
- CROSSWALK
- STOP BAR
- EXISTING CATCH BASIN
- QUANTITY TABULATION NOTE FLAG (#)
- STRUCTURE NOTE FLAG (#)
- SIGN NOTE FLAG (#)
- SIGN REMOVAL NOTE FLAG R-__



FILE NAME	C:\AAWork\Manuals\PPM\2012\Div 4 Example files\PPM_Div_4_Example_1-40.dgn				REGION NO. 10	STATE WASH	FED.AID PROJ.NO. NH-0000(000)	Plot 27
TIME	3:34:29 PM							DP1
DATE	9/5/2012				JOB NUMBER 00Z000			SHEET
PLOTTED BY	KerrT							OF
DESIGNED BY	DESIGNER				CONTRACT NO.		LOCATION NO. XL-1234	SHEETS
ENTERED BY	CAD OPERATOR							
CHECKED BY	TEAM LEADER							
PROJ. ENGR.	PROJECT ENGINEER							
REGIONAL ADM.	REGIONAL ADM.	REVISION	DATE	BY				

DATE
P.E. STAMP BOX

DATE
P.E. STAMP BOX

Washington State Department of Transportation

EXAMPLE 4-27

DRAINAGE/SIGNING/PAVEMENT MARKING

STRUCTURE NOTES - UTILITY

NOTE:
THE FIRST NUMBER OF THE "CODE DESIGNATION" BELOW REFERS TO THE SHEET NO. OR THE SHEET REFERENCE NO. SHOWING THE DRAINAGE FEATURE.

THE SECOND NUMBER REFERS TO THE DRAINAGE FEATURE FOUND ON THAT SHEET.

CODE	LOCATION ↘ \ UNIT OF MEASURE ➢	BORING AND JACKING 42 IN. PLAIN STEEL CULVERT PIPE	JACKING PIT FOR 42 IN. PLIAN STEEL CULVERT PIPE	SLIPLINING 42 IN. STEEL CASING WITH 30 IN. HDPE PIPE	HIGH DENSITY POLYETHYLENE PIPE 12 IN. DIAM.		HIGH DENSITY POLYETHYLENE PIPE 30 IN. DIAM.	HSS 16.00 STEEL PIPE	CAPPING SANITARY SEWER MANHOLE	MONITORING SANITARY SEWER LINE		SEWER CLEANOUT	TESTING SEWER PIPE	PVC SANITARY SEWER PIPE 6 IN. DIAM.	PVC SANITARY SEWER PIPE 12 IN. DIAM.		SEE GENERAL NOTES
		L.F.	EACH	L.F.	L.F.		L.F.	EACH	EACH	EACH		EACH	L.F.	L.F.	L.F.		
UT3-1	75																
UT3-2	L 1478+06 (147 RT) TO L 1481+60 (157 RT)																1
UT3-3	L 1481+60 (157 RT) TO L 1482+82 (156 RT)								1	20							1, 5, 7
UT3-4	L 1482+82 (156 RT) TO L 1485+55 (154 RT)								1								1, 5
UT3-5	L 1485+55 (154 RT) TO L 1487+62 (155 RT)								1								1, 5
UT3-6	L 1478+06.01 (147.33 RT) TO L 1478+15.88 (157.44 RT)						14						14				2
UT3-7	L 1478+15.88 (157.44 RT) TO L 1481+92.25 (167.73 RT)						337						337				2
UT3-8	L 1481+92.25 (167.73 RT) TO L 1487+46.88 (167.47 RT)	487	1	487			497						497				2
UT3-9	L 1487+46.88 (167.47 RT) TO L 1487+62.56 (155.66 RT)						14						14				2, 3, 4, 6
UT3-10	L 1487+62.56 (155.66 RT)																
UT3-11	LB 118+71 (119 LT)																
UT3-12	LB 118+57 (115 LT) TO LB 118+72 (75 LT)																
UT3-13	LB 118+54(75 LT)																10
UT3-14	LB 118+72 (75 LT) TO LB 120+15 (51 LT)				709												8
UT3-15	LB 120+44 (62 LT) TO LB 120+48 (70 RT)																
UT3-16	LB 120+51 (79 LT)																
UT3-17	LB 120+15 (51 LT) TO LB 122+18 (51 LT)							142									9
UT3-18	LB 122+110 (63 LT) TO LB 122+06 (63 RT)																
UT3-19	LB 122+07 (72 LT)																
UT3-20	LB 122+18 (51 LT) TO LB 125+37 (74 LT)																
UT6-1	HAM 1729+34.45 (30.85 LT)																
UT6-2	HAM 1729+34.45 (30.85 LT) TO HAM 1731+60.60 (44.61 LT)																
UT6-3	LB 108+09 (70 RT) TO LB 106+76 (23 RT)																
UT6-4	LB 106+76 (23 RT)																
UT6-5	LB 106+28 (52 LT) TO LB 108+09 (70 RT)																
UT6-6	LB 109+28 (52 LT)																
UT6-7	LB 110+10 (36 LT)																
UT6-8	LB 110+99 (52 LT) TO LB 110+86 (71 RT)																
UT6-9	LB 113+89 (44 LT) TO LB 144+06 (117 RT)																
UT6-10	LB 116+24.(65 LT) TO LB 115+79 (127 RT)																
UT7-1	OB 600+62.54 (60.31 LT) TO OB 602+91.84 (23.73 RT)														250		
UT7-2	OB 602+91.84 (23.73 RT) TO OB 602+91.36 (43.01 RT)											1		20			
UT7-3	LB 129+48 (62 RT)																10
UT7-4	LB 129+48 (62 RT) TO LB 129+52 (10 RT)																
UT7-5	LB 127+02 (95 RT) TO LB 126+94 (89 RT)																10
	SHEET TOTAL	487	1	487	709		862	142	3	20		1	862	20	250		

GENERAL NOTES:

1. SEE SPECIAL PROVISION "FILLING OF CULVERTS AND SEWER PIPE."
2. SEE SPEIAL PROVISION "HIGH DENSITY POLYETHYLINE PIPE."
3. SEE SPECIAL PROVISION " BORING AND JACKING CULVERT PIPE."
4. SEE SPECIAL PROVISION " JACKING PIT."
5. SEE SPECIAL PROVISION "CAPPING SANITARY SEWER MANHOLE."
6. SEE SPECAIL PROVISION "SLIPPING."
7. SEE SPECIAL PROVISION "MONITORING SANITARY SEWER LINES."
8. SEE SPECAIL PROVISION "VALVES FOR WATER MAINS."
9. SEE SPECIAL PROVISION "HSS 16,00 STEEL PIPE."
10. SEE "CEMENT CONCRETE SIDEWALK @ FIRE HYDRANT" DETAIL FOR CONCRETE SIDEWALK THICKNESS.

						REGION NO.	STATE	FED. AID PROJ. NO.			
						10	WASH				
DESIGNED BY	DESIGNER					**JOB NUMBER**		NH-0000(000)			
ENTERED BY	CAD OPERATOER					00Z000					
CHECKED BY	TEAM LEAD					**CONTRACT NO.**					
PROJ. ENGR.	PROJECT ENGINEER										
REGION ADM.	REIONAL ADM.										
		DATE	**DATE**	**REVISION**	**BY**						

Washington State Department of Transportation

EXAMPLE 4-28
I-5 AND LABREE RD INTERCHANGE
SAMPLE PROJECT

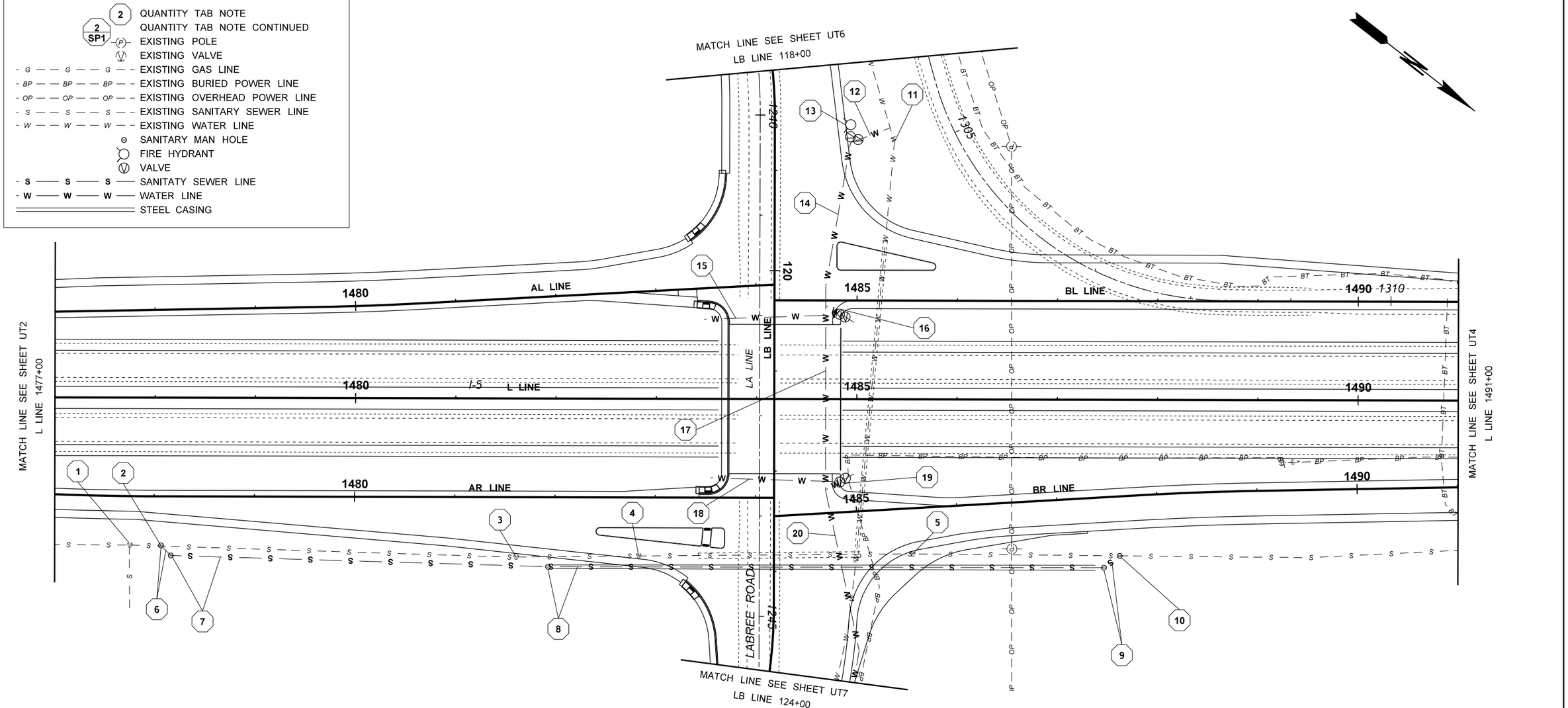
STRUCTURE NOTES - UTILITY

SNUT 1

SHEET **OF** **SHEETS**

LEGEND

2	QUANTITY TAB NOTE
2 / SP1	QUANTITY TAB NOTE CONTINUED
(P)	EXISTING POLE
(V)	EXISTING VALVE
G — G — G	EXISTING GAS LINE
BP — BP — BP	EXISTING BURIED POWER LINE
OP — OP — OP	EXISTING OVERHEAD POWER LINE
S — S — S	EXISTING SANITARY SEWER LINE
W — W — W	EXISTING WATER LINE
	SANITARY MAN HOLE
	FIRE HYDRANT
	VALVE
S — S — S	SANITATY SEWER LINE
W — W — W	WATER LINE
	STEEL CASING



0 50 100
SCALE IN FEET

SHEETS UT1 AND UT2 INTENTIONALLY OMITTED FROM PLAN SET

FILE NAME	C:\AAWork\Manuals\PPM\2012\Div 4 Example files\PPM_Div4_PS_UT.dgn				REGION NO. / STATE	FED.AID PROJ.NO.	Plot 3
TIME	3:08:27 PM				10 / WASH	NH-0000(000)	PLAN REF NO UT3
DATE	9/5/2012				JOB NUMBER 00Z000		
PLOTTED BY	KerrT				CONTRACT NO.	LOCATION NO. XL-1234	SHEET OF SHEETS
DESIGNED BY	DESIGNER						
ENTERED BY	CAD OPERATOR						
CHECKED BY	TEAM LEAD						
PROJ. ENGR.	PROJECT ENGINEER						
REGIONAL ADM.	REGIONAL ADM.	REVISION	DATE	BY			

DATE
P.E. STAMP BOX

DATE
P.E. STAMP BOX

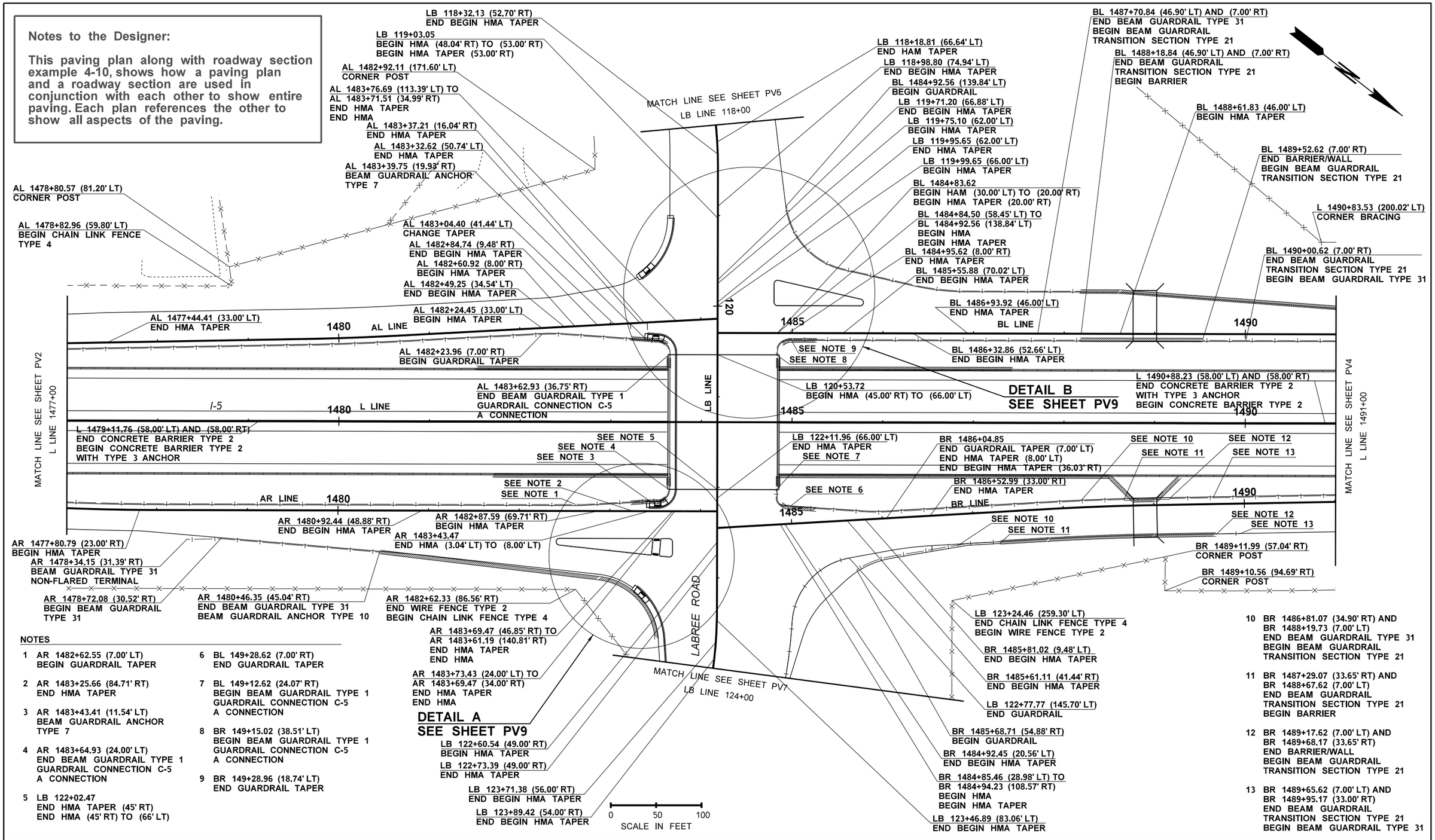
Washington State Department of Transportation

EXAMPLE 4-29
I-5 AND LABREE RD INTERCHANGE SAMPLE PROJECT

UTILITY PLAN

Notes to the Designer:

This paving plan along with roadway section example 4-10, shows how a paving plan and a roadway section are used in conjunction with each other to show entire paving. Each plan references the other to show all aspects of the paving.



NOTES

1. AR 1482+62.55 (7.00' LT) BEGIN GUARDRAIL TAPER
2. AR 1483+25.66 (84.71' RT) END HMA TAPER
3. AR 1483+43.41 (11.54' LT) BEAM GUARDRAIL ANCHOR TYPE 7
4. AR 1483+64.93 (24.00' LT) END BEAM GUARDRAIL TYPE 1 GUARDRAIL CONNECTION C-5 A CONNECTION
5. LB 122+02.47 END HMA TAPER (45' RT) END HMA (45' RT) TO (66' LT)
6. BL 149+28.62 (7.00' RT) END GUARDRAIL TAPER
7. BL 149+12.62 (24.07' RT) BEGIN BEAM GUARDRAIL TYPE 1 GUARDRAIL CONNECTION C-5 A CONNECTION
8. BR 149+15.02 (38.51' LT) BEGIN BEAM GUARDRAIL TYPE 1 GUARDRAIL CONNECTION C-5 A CONNECTION
9. BR 149+28.96 (18.74' LT) END GUARDRAIL TAPER
10. BR 1486+81.07 (34.90' RT) AND BR 1488+19.73 (7.00' LT) END BEAM GUARDRAIL TYPE 31 BEGIN BEAM GUARDRAIL TRANSITION SECTION TYPE 21
11. BR 1487+29.07 (33.65' RT) AND BR 1488+67.62 (7.00' LT) END BEAM GUARDRAIL TRANSITION SECTION TYPE 21 BEGIN BARRIER
12. BR 1489+17.62 (7.00' LT) AND BR 1489+68.17 (33.65' RT) END BARRIER/WALL BEGIN BEAM GUARDRAIL TRANSITION SECTION TYPE 21
13. BR 1489+65.62 (7.00' LT) AND BR 1489+95.17 (33.00' RT) END BEAM GUARDRAIL TRANSITION SECTION TYPE 21 BEGIN BEAM GUARDRAIL TYPE 31

FILE NAME	C:\AAWork\Manuals\PPM\2012\Div 4 Example files\PPM_Div4_PS_PV.dgn				REGION NO.	STATE	FED.AID PROJ.NO.
TIME	3:15:15 PM				10	WASH	NH-0000(000)
DATE	9/5/2012				JOB NUMBER		
PLOTTED BY	KerrT				00Z000		
DESIGNED BY	DESIGNER				CONTRACT NO.		LOCATION NO.
ENTERED BY	CAD OPERATOR						XL-1234
CHECKED BY	TEAM LEAD						
PROJ. ENGR.	PROJECT ENGINEER						
REGIONAL ADM.	REGIONAL ADM.	REVISION	DATE	BY			

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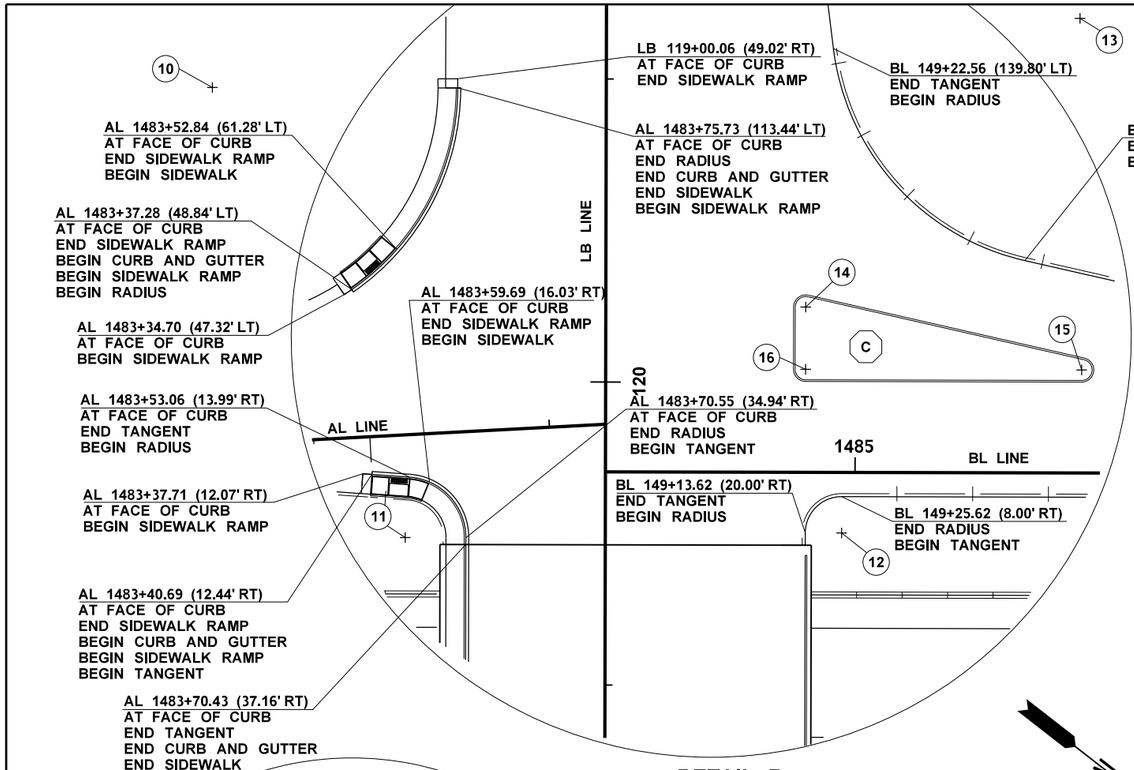
EXAMPLE 4-30
I-5 AND LABREE RD INTERCHANGE
SAMPLE PROJECT

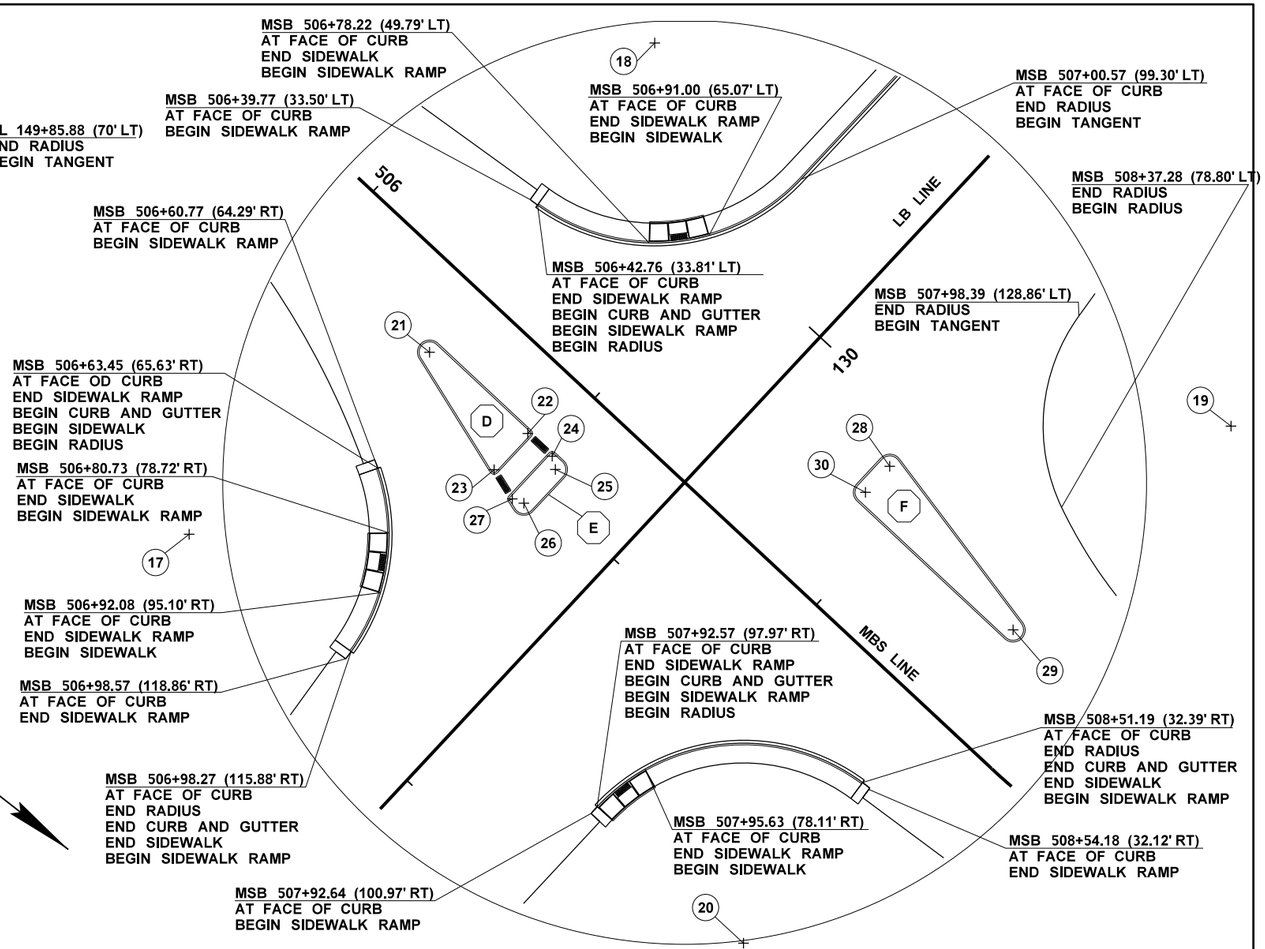
PAVING PLAN

Plot 3

PLAN REF NO **PV3**

SHEET OF SHEETS





TRAFFIC ISLAND	RADIUS POINT	STATION & OFFSET	RADIUS AT FACE OF CURB	RADIUS AT BACK OF CURB	RADIUS AT SIDEWALK
-	1	AR 1483+52.47 (24.00' LT)	20.00'	19.46'	13.46'
A	2	AR 1482+44.63 (34.00' RT)	4.00'	3.46'	-
A	3	AR 1483+46.42 (31.50' RT)	1.50'	.96'	-
A	4	AR 1483+44.95 (47.18' RT)	1.50'	.96'	-
B	5	AR 1483+57.47 (31.50' RT)	1.50'	.96'	-
B	6	AR 1483+65.47 (34.00' RT)	4.00'	3.46'	-
B	7	AR 1483+65.47 (46.85' RT)	4.00'	3.46'	-
B	8	AR 1483+55.99 (48.36' RT)	1.50'	.96'	-
-	9	AR 1482+79.42 (146.28' RT)	81.00'	80.46'	74.46'
-	10	AL 1482+94.85 (117.84' LT)	81.00'	80.46'	74.46'
-	11	AL 1483+50.58 (33.84' RT)	20.00'	19.46'	13.46'
-	12	BL 149+25.62 (20.00' RT)	20.00'	-	-
-	13	BL 150+03.92 (150.02' LT)	90.00'	-	-
C	14	BL 149+13.62 (54.54' LT)	4.00'	3.46'	-
C	15	BL 150+04.71 (34.00' LT)	4.00'	3.46'	-
C	16	BL 149+13.62 (34.00' LT)	4.00'	3.46'	-

TRAFFIC ISLAND	RADIUS POINT	STATION & OFFSET	RADIUS AT FACE OF CURB	RADIUS AT BACK OF CURB	RADIUS AT SIDEWALK
-	17	MSB 506+32.78 (124.06' RT)	66.00'	65.46'	59.46'
-	18	MSB 506+34.57 (99.30' LT)	66.00'	65.46'	59.46'
-	19	MSB 508+59.91 (136.55' LT)	70.00'	-	-
-	20	MSB 508+59.91 (136.55' LT)	66.00'	64.46'	59.46'
D	21	MSB 506+49.83 (26.00' RT)	4.00'	3.46'	-
D	22	MSB 506+91.83 (23.50' RT)	1.50'	.96'	-
D	23	MSB 506+91.83 (39.84' RT)	1.50'	.96'	-
E	24	MSB 506+91.83 (39.84' RT)	1.50'	.96'	-
E	25	MSB 507+06.57 (26.00' RT)	4.00'	3.46'	-
E	26	MSB 507+06.57 (41.20' RT)	4.00'	3.46'	-
E	27	MSB 507+02.83 (42.79' RT)	1.50'	.96'	-
F	28	MSB 507+86.57 (50.05' LT)	4.00'	3.46'	-
F	29	MSB 508+53.14 (38.31' LT)	4.00'	3.46'	-
F	30	MSB 507+86.57 (38.31' LT)	4.00'	3.46'	30.00'

FILE NAME	C:\AAWork\Manuals\PPM\2012\Div 4 Example files\PPM_Div4_PS_PV.dgn				REGION NO.	STATE	FED.AID PROJ.NO.	Plot 9
TIME	3:15:24 PM				10	WASH	NH-0000(000)	PLAN REF NO PV9
DATE	9/5/2012				JOB NUMBER			
PLOTTED BY	KerrT				00Z000			
DESIGNED BY	DESIGNER				CONTRACT NO.		LOCATION NO.	SHEET OF SHEETS
ENTERED BY	CAD OPERATOR						XL-1234	
CHECKED BY	TEAM LEAD							
PROJ. ENGR.	PROJECT ENGINEER							
REGIONAL ADM.	REGIONAL ADM.	REVISION	DATE	BY				

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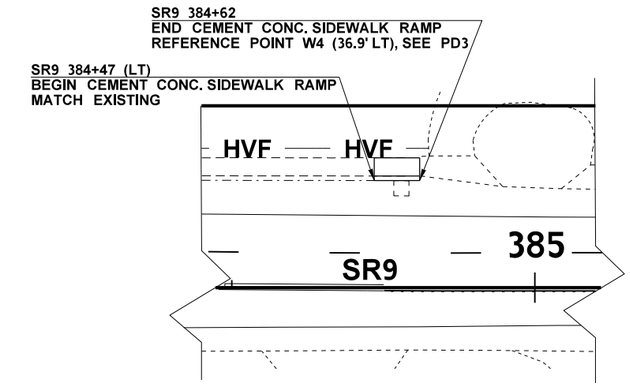
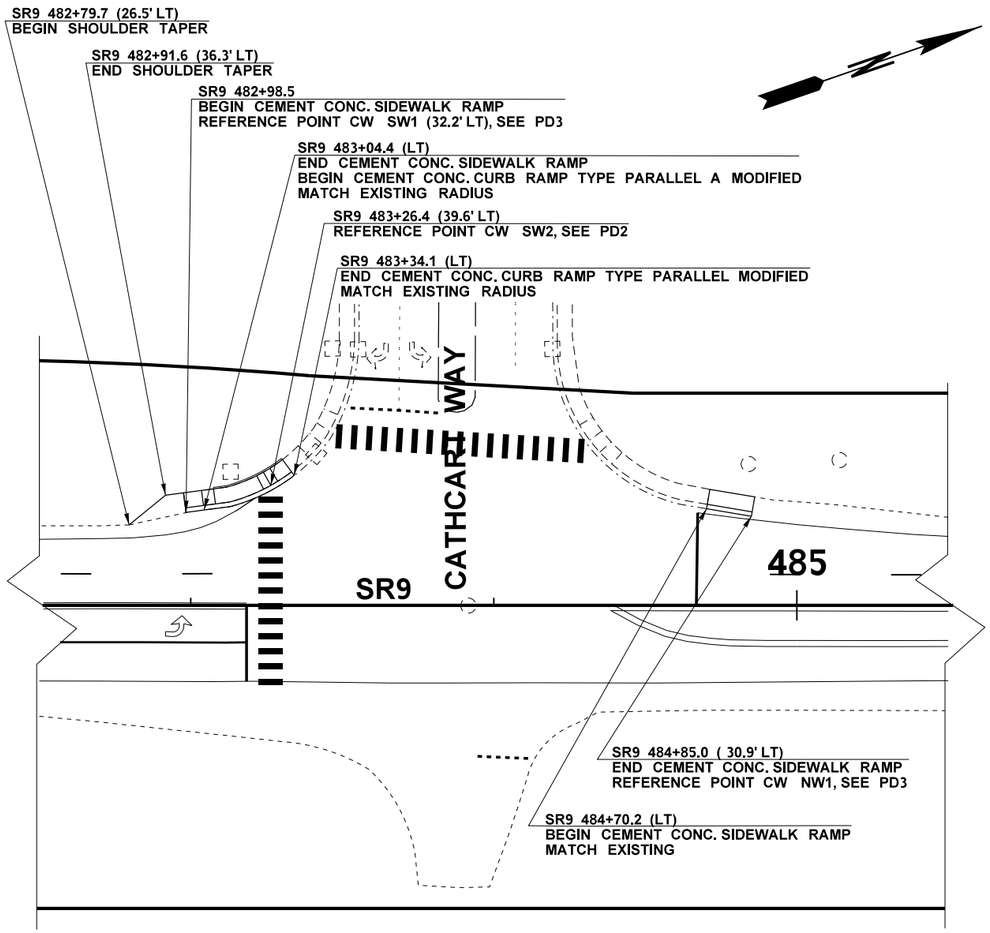
EXAMPLE 4-31
I-5 AND LABREE RD INTERCHANGE
SAMPLE PROJECT

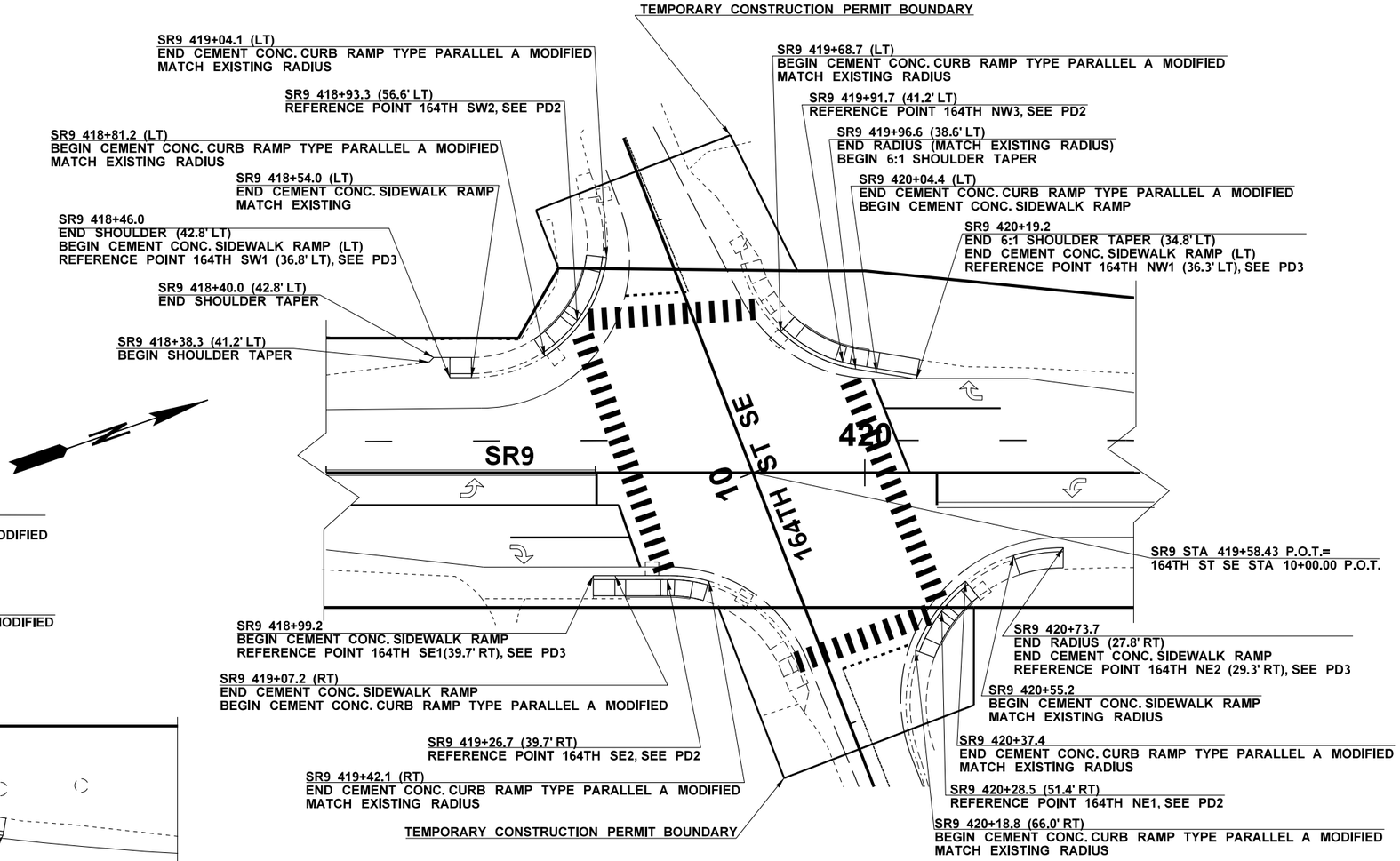
PAVING PLAN



SR9 VIC. STA. 384+50



SR9/CATHCART WAY I/S



SR9/164TH ST SE I/S

LEGEND

EXISTING	
———	RIGHT OF WAY
———	TEMP. CONST. PERMIT
◌	MANHOLE
⊡	CATCH BASIN
- - - - - - - - - - - -	EDGE OF PAVEMENT
-·-·-·-·-·-·-	CURB
– – – – – – – – –	SIDEWALK
NEW	
———	EDGE OF PAVEMENT

0 25 50
SCALE IN FEET

Notes to the Designer:

1) These details are emphasizing ADA design for construction.

2) This design represents a mobile paving operation.

NOTES:
1. SEE PAVING PLANS AND ROADWAY SECTIONS FOR PAVEMENT WIDTHS AND LIMITS OF PLANING BITUMINOUS PAVEMENT.
2. SEE ALIGNMENT AND RIGHT OF WAY PLANS FOR TEMPORARY CONSTRUCTION PERMIT AND RIGHT OF WAY BOUNDARIES.
3. SEE PAVEMENT MARKING PLANS FOR RELATED LEGEND ITEMS AND DETAILS.
4. SEE TESC PLANS FOR RELATED LEGEND ITEMS AND DETAILS.
5. SEE SHEETS PD2 & PD3 FOR ADDITIONAL SIDEWALK AND CURB RAMP DETAILS.

FILE NAME	C:\AAWork\Manuals\PPM\2012\Div 4 Example files\PPM_Div_4_Example_1-40.dgn				REGION NO.	STATE	FED.AID PROJ.NO.
TIME	3:34:53 PM				10	WASH	
DATE	9/5/2012				JOB NUMBER		
PLOTTED BY	KerrT				11A025		
DESIGNED BY					CONTRACT NO.		LOCATION NO.
ENTERED BY							
CHECKED BY							
PROJ. ENGR.							
REGIONAL ADM.		REVISION	DATE	BY			

DATE
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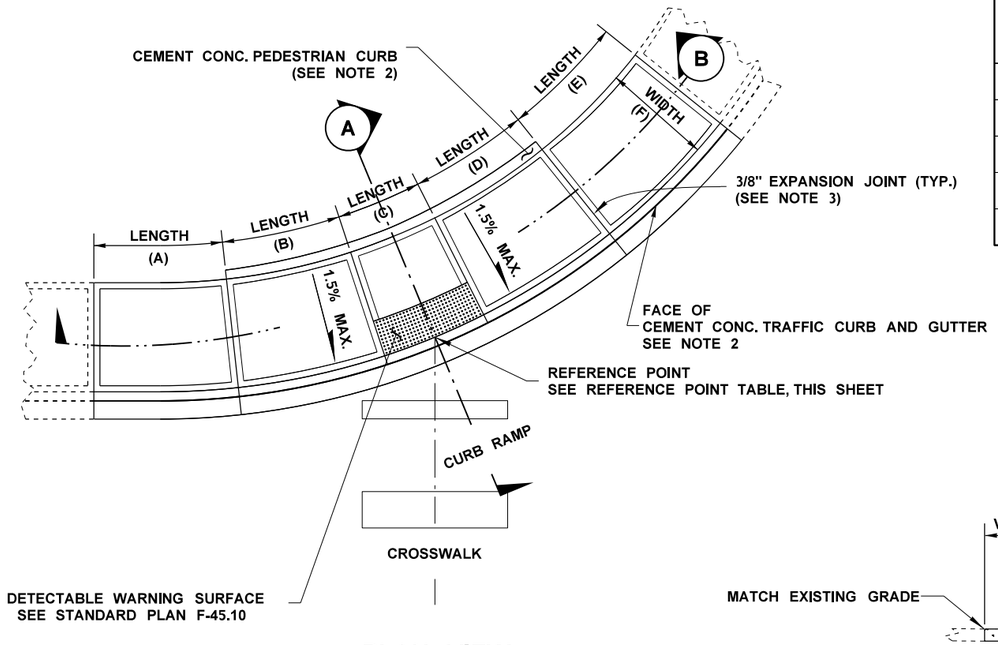
STATE OF WASHINGTON REGISTERED PROFESSIONAL ENGINEER
DATE
P.E. STAMP BOX

Washington State Department of Transportation

Example 4-32

PAVING DETAIL

Plot 32
PLAN REF NO
PD1
SHEET 17 OF 84 SHEETS

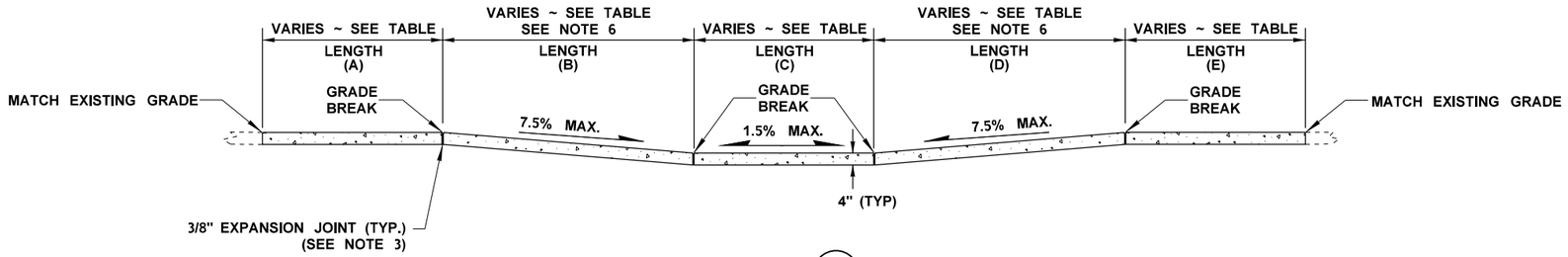


PLAN VIEW
Not To Scale

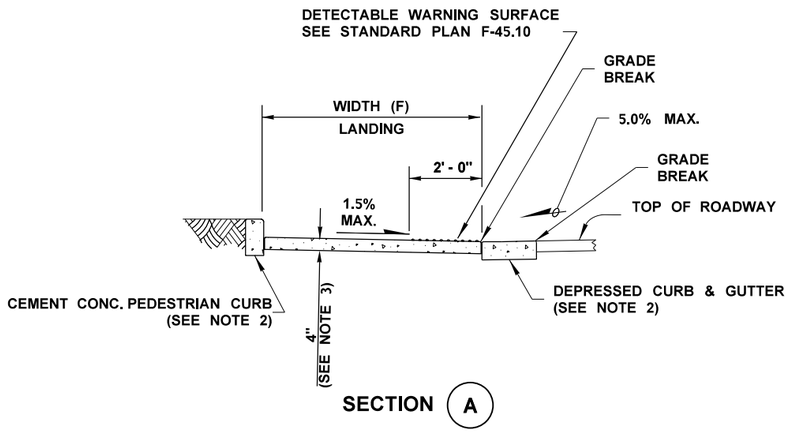
CURB RAMP REF. POINT ID SEE SHEET PD1	APPROXIMATE LENGTH (SEE NOTES 6 AND 7)					WIDTH
	(A)	(B)	(C)	(D)	(E)	(F)
164TH SW2	5'	8'	5'	15'	5'	6'
164TH NW3	5'	15'	5'	6'	4'	6'
164TH SE2	5'	6'	5'	13'	4'	6'
164TH NE1	3'	7'	5'	8'	5'	6'
CW SW2	4'	15'	5'	5'	N/A	5'

NOTES

1. Do not place gratings, junction boxes, access covers, or other appurtenances in front of the curb ramp or on any part of the curb ramp or landing.
2. See Standard Plan F-10.12-02 for Curb, and Curb and Gutter Details.
3. See Standard Plan F-30.10-01 for Cement Concrete Sidewalk Details.
4. The Bid Item "Cement Conc. Curb Ramp Type Parallel A Modified" Includes the adjacent Cement Conc. Curb and Gutter, Cement Conc. Pedestrian Curb, and Cement Conc. Sidewalks.
   See Special Provision "Cement Concrete Sidewalks" for additional inclusions.
5. Approximate Lengths are for informational purposes only.
   Grade requirements shall be met.
6. The curb ramp maximum running slope shall not require the ramp length to exceed 15 feet and shall be as flat as feasable.
7. Cement Conc. Curb Ramp Type Parallel A Modified shall receive a broom finish. See Section 8-14.3(3).
8. The use of slopes take precedence over the use od dimension in ADA design.



SECTION (B)



SECTION (A)

Notes to the Designer:

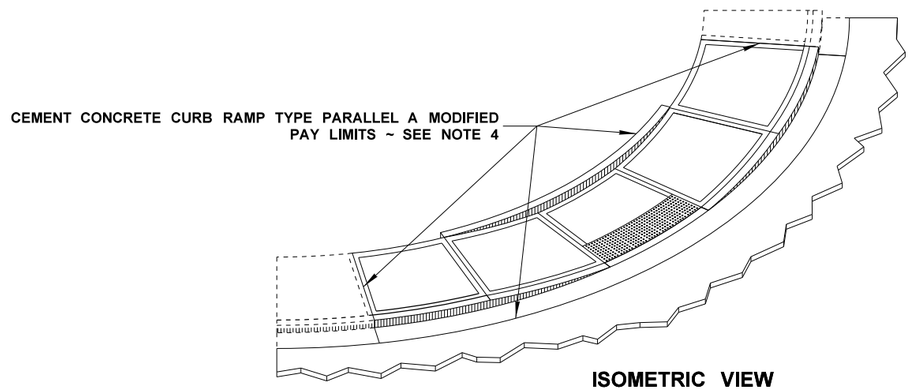
1) These details are emphasizing ADA design for construction.

2) This design represents a mobile paving operation.

3) Consult with your region ADA Coordinator. This design is project specific and your Region may have other requirements for constructability.

4) the "Approximate Length" scheduleis for information only.

5) Note 8 was added to emphasize the use of slope versus dimensions for ADA design.



ISOMETRIC VIEW

CEMENT CONC. CURB RAMP TYPE PARALLEL A MODIFIED

FILE NAME	C:\AAWork\Manuals\PPM\2012\Div 4 Example files\PPM_Div_4_Example_1-40.dgn				REGION NO.	STATE	FED.AID PROJ.NO.
TIME	3:35:02 PM				10	WASH	
DATE	9/5/2012				JOB NUMBER		
PLOTTED BY	KerrT				11A025		
DESIGNED BY					CONTRACT NO.		LOCATION NO.
ENTERED BY							
CHECKED BY							
PROJ. ENGR.							
REGIONAL ADM.		REVISION	DATE	BY			

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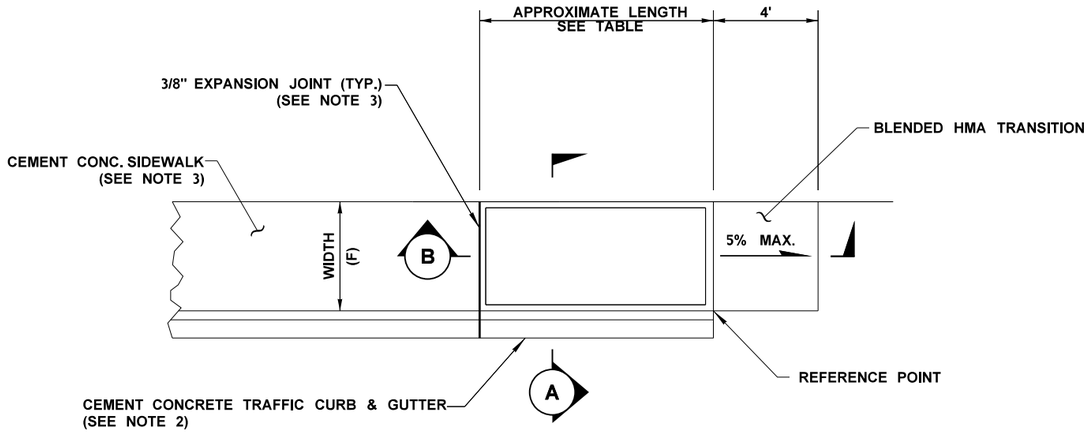
Example 4-33

PAVING DETAIL

PLAN REF NO
PD2

SHEET 18 OF 84 SHEETS



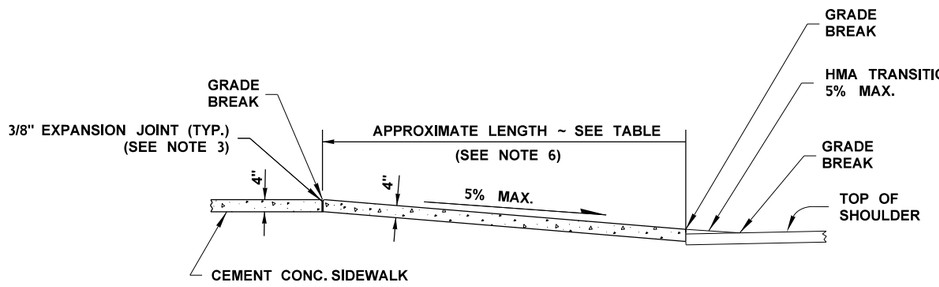
SIDEWALK RAMP REF. POINT ID SEE SHEET PD1	APPROXIMATE LENGTH (SEE NOTES 6 & 7)	WIDTH (F)
W4	15'	6'
164TH SW1	8'	6'
164TH NW1	15'	6'
164TH SE1	8'	6'
164TH NE2	16.4' *	6'
CW SW1	6'	5'
CW NW1	15'	5'

* RAMP LENGTH IS AN EXCEPTION TO NOTE 6.

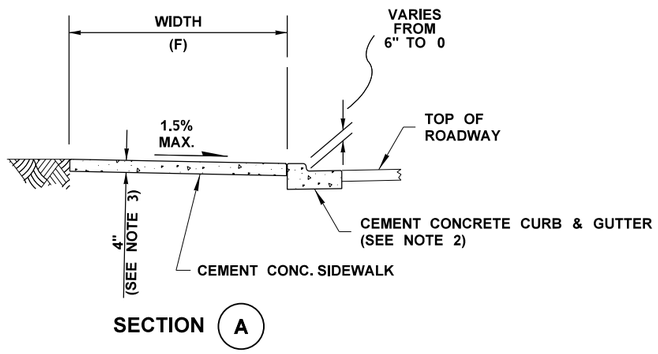
NOTES

1. Do not place gratings, junction boxes, access covers, or other appurtenances in front of the curb ramp or on any part of the curb ramp or landing.
2. See Standard Plan F-10.12-02 for Curb, and Curb and Gutter Details.
3. See Standard Plan F-30.10-01 for Cement Concrete Sidewalk Details.
4. The Bid Item "Cement Conc. Curb Ramp Type Parallel A Modified" includes the adjacent Cement Conc. Curb and Gutter, Cement Conc. Pedestrian Curb, and Cement Conc. Sidewalks.
   See Special Provision "Cement Concrete Sidewalks" for additional inclusions.
5. Approximate Lengths are for Informational purposes only.
   Grade requirements shall be met.
6. The curb ramp maximum running slope shall not require the ramp length to exceed 15 feet and shall be as flat as feasable.
7. Cement Conc. Curb Ramp Type Parallel A Modified shall receive a broom finish.
   See Section 8-14.3(3).

PLAN VIEW
Not To Scale



SECTION (B)

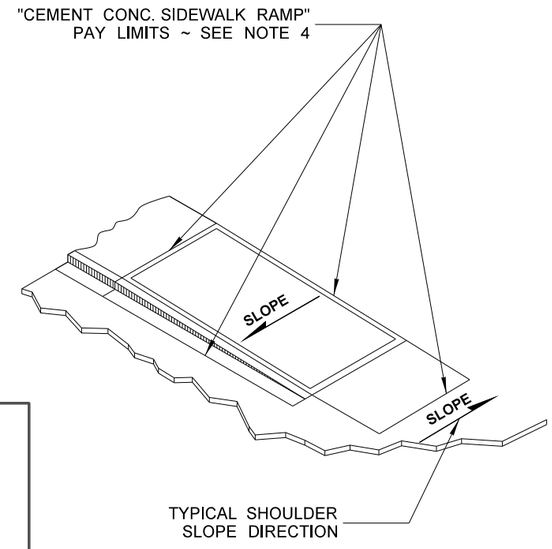


SECTION (A)

Notes to the Designer:

1) These details are emphasizing ADA design for construction.

2) This design represents a mobile paving operation.



ISOMETRIC VIEW

CEMENT CONC. SIDEWALK RAMP

FILE NAME	C:\AAWork\Manuals\PPM\2012\Div 4 Example files\PPM_Div_4_Example_1-40.dgn						Plot 34
TIME	3:35:12 PM				REGION NO. 10 / STATE WASH	FED.AID PROJ.NO.	PLAN REF NO PD3
DATE	9/5/2012						
PLOTTED BY	KerrT				JOB NUMBER 11A025		SHEET 19 OF 84 SHEETS
DESIGNED BY					CONTRACT NO.	LOCATION NO.	
ENTERED BY							
CHECKED BY							
PROJ. ENGR.							
REGIONAL ADM.		REVISION	DATE	BY			

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Example 4-34

PAVING DETAIL

QUANTITY TABULATION - PAVEMENT MARKING

NOTE:
THE FIRST NUMBER OF THE "CODE" BELOW REFERS TO THE SHEET NO. OR THE SHEET REFERENCE NO. SHOWING THE CONSTRUCTION FEATURE.

THE SECOND NUMBER REFERS TO THE CONSTRUCTION FEATURE FOUND ON THAT SHEET.

CODE	LOCATION ⮟ \ UNIT OF MEASURE ⮞	FLEXABLE GUIDE POST	PAINT LINE	PLASTIC LINE	PAINTED WIDE LINE	PLASTIC WIDE LINE		PLASTIC CROSSWALK LINE	PLASTIC STOP LINE	PLASTIC TRAFFIC ARROW	PAINTED DRAINAGE MARKINGS	SHOULDER RUMBLE STRIP TYPE		RAISED PAVEMENT MARKER TYPE 1			SEE GENERAL NOTES
		EACH	L.F.		L.F.	L.F.		S.F.	L.F.	EACH	EACH	MI.		HUND			
PM1-1	L 1450+00.00 (47 LT) TO 1463+75.00 (74 LT)		1375														
PM1-2	L 1450+00.00 (35 LT) TO L 1520+00.00 (35 LT)		7000														
PM1-3	L 1450+00.00 (23 LT) TO L 1520+00.00 (23 LT)		7000														
PM1-4	L 1450+00.00 (11 LT) TO L 1520+00.00 (11LT)		7000														
PM1-5	L 1450+00.00 (11 LT) TO L 1520+00.00 (11 LT)		7000														
PM1-6	L 1450+00.00 (23 LT) TO L 1520+00.00 (23 LT)		7000														
PM1-7	L 1450+00.00 (35 LT) TO L 1520+00.00 (35 LT)		7000														
PM1-8	L 1450+00.00 (47 LT) TO 1470+20.00 (78RT)		2020														
PM1-9	L 1455+04 (61 LT)										1						
PM1-10	L 1457+75.26 (47 LT) TO L 1460+75.32 (53 LT)		300														
PM1-11	L 1459+97 (70 LT) AND (7 LT)										2						
PM1-12	L 1460+75.32 (53 LT) TO 1463+75.00 (74 LT)				300												
PM1-13	L 1460+75.32 (47 LT) TO L 1495+17.27 (47 LT)		3442														
PM2-1	AL 1463+75.30 (15 LT) TO AL 1483+46.29 (50.6 LT)			1970													
PM2-2	AL 1463+75.30 (0 RT) TO AL 1474+75.23 (0RT)					1100											
PM2-3	AL 1463+98 (19 LT)										1						
PM2-4	AL 1467+94 (19 LT)										1						
PM2-5	AL 1473+97 (22 LT)										1						
PM2-6	AL 1474+75.23 (0 RT) TO AL 1483+49.86 (11.4 RT)			875													
PM2-7	L 1463+98 (7 LT)										1						
PM2-8	L 1467+01.44 (47 RT) TO L 1475+21.64 (47 RT)				820												
PM2-9	L 1467+01.44 (47 RT) TO L 1470+20.00 (63 RT)		318														
PM2-10	L 1467+87 (70 RT)										1						
PM2-11	L 1473+99 (7 LT)										1						
PM2-12	L 1474+21.64 (47 RT) TO L 1507+75.45 (47 RT)		3254														
PM2-13	AR 1470+20.74 (0 LT) TO AR 1474+21.45 (0 LT)					400											
PM2-14	AR 1470+20.74 (15 RT) TO AR 1483+38.56 (88.74 RT)			1317													
PM2-15	AR 1474+21.45 (0 LT) TO1483+52.89 (1.91 LT)			931													
PM3-1	AL 1477+44.51 (12.5 LT) TO AL 1483+38.00 (12.5 LT)			593													
PM3-2	AL 1483+46.3 (50.6 LT) TO AL 1483+49.9 (11.4 RT)							144									7
PM3-3	L 1478+03 (51 RT)										1						
PM3-4	L 1478+97 (50 LT) AND 1479+02 (50 RT)										2						
PM3-5	L 1479+99 (50 LT) AND L 1480+03 (50 RT)										2						
	SHEET TOTAL		52709	5686	1120	1500		144			14						

GENERAL NOTES:

1. SEE STANDARD PLANS "M-24.40-01" TYPE 1S
2. SEE STANDARD PLANS "M-24.40-01" TYPE 2SL
3. SEE STANDARD PLANS "M-24.40-01" TYPE 2SR
4. SEE STANDARD PLANS "M-24.40-01" TYPE 3SL
5. SEE STANDARD PLANS "M-24.40-01" TYPE 3SR
6. SEE STANDARD PLANS "M-24.60.06"
7. SEE STANDARD PLANS "M-15.10-01"

		DATE	DATE	REVISION	BY
DESIGNED BY	DESIGNER				
ENTERED BY	CAD OPERATOR				
CHECKED BY	TEAM LEAD				
PROJ. ENGR.	PROJECT ENGINEER				
REGION ADM.	REGIONAL ADM.				

REGION NO.	STATE	FED. AID PROJ. NO.
10	WASH	NH-0000(000)

JOB NUMBER
00Z000

CONTRACT NO.

Washington State Department of Transportation

EXAMPLE 4-35
I-5 AND LABREE RD INTERCHANGE
SAMPLE PROJECT

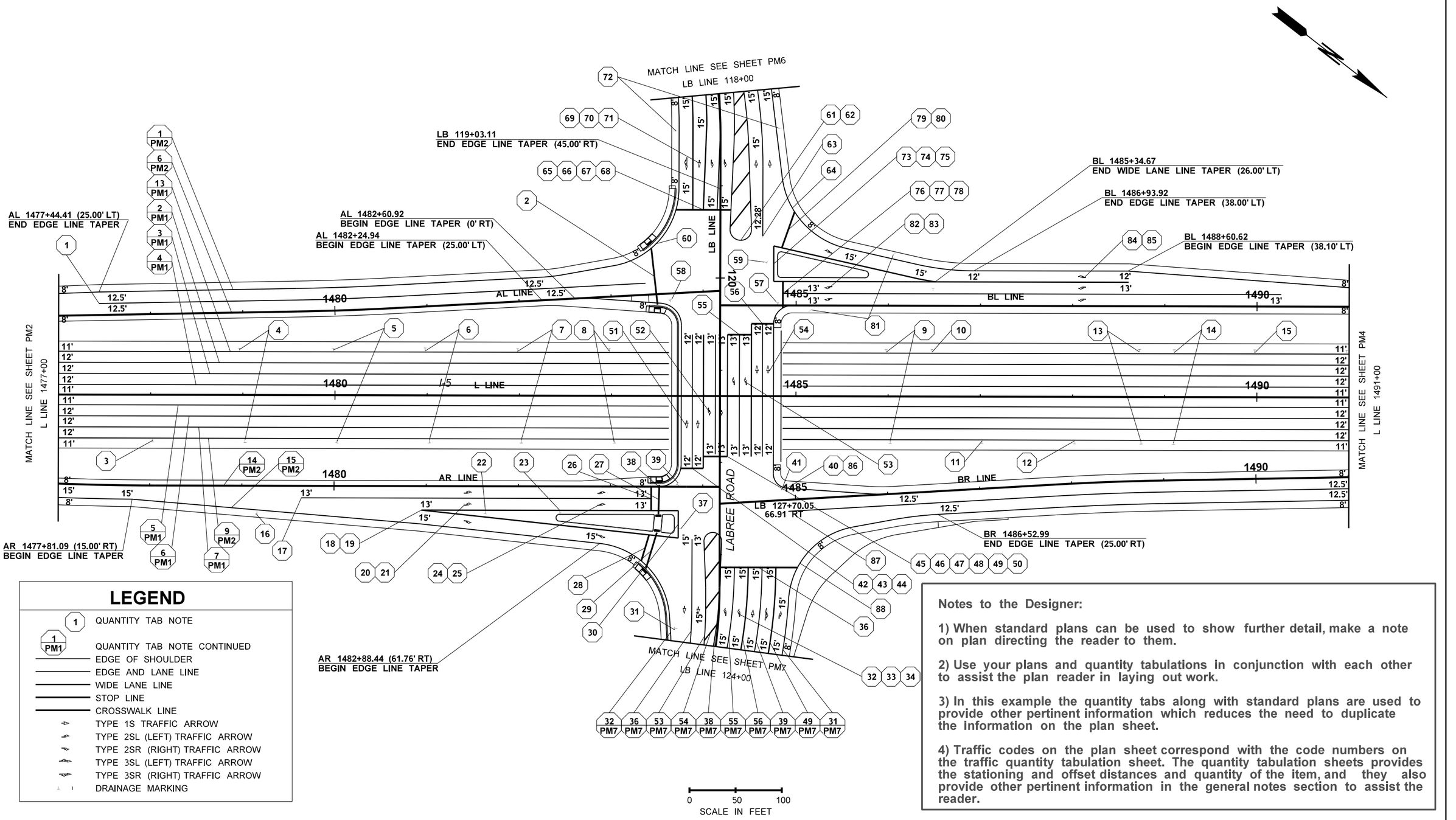
QUANTITY TABULATION - PAVEMENT MARKING

QTPM 1

SHEET

OF

SHEETS



LEGEND

- QUANTITY TAB NOTE
- QUANTITY TAB NOTE CONTINUED
- EDGE OF SHOULDER
- EDGE AND LANE LINE
- WIDE LANE LINE
- STOP LINE
- CROSSWALK LINE
- TYPE 1S TRAFFIC ARROW
- TYPE 2SL (LEFT) TRAFFIC ARROW
- TYPE 2SR (RIGHT) TRAFFIC ARROW
- TYPE 3SL (LEFT) TRAFFIC ARROW
- TYPE 3SR (RIGHT) TRAFFIC ARROW
- DRAINAGE MARKING

Notes to the Designer:

1) When standard plans can be used to show further detail, make a note on plan directing the reader to them.

2) Use your plans and quantity tabulations in conjunction with each other to assist the plan reader in laying out work.

3) In this example the quantity tabs along with standard plans are used to provide other pertinent information which reduces the need to duplicate the information on the plan sheet.

4) Traffic codes on the plan sheet correspond with the code numbers on the traffic quantity tabulation sheet. The quantity tabulation sheets provides the stationing and offset distances and quantity of the item, and they also provide other pertinent information in the general notes section to assist the reader.

FILE NAME	C:\AAWork\Manuals\PPM\2012\Div 4 Example files\PPM_Div4_PS_PM.dgn				REGION NO. / STATE	FED.AID PROJ.NO.	Plot 3
TIME	3:16:01 PM				10 / WASH	NH-0000(000)	PLAN REF NO PM3
DATE	9/5/2012				JOB NUMBER 00Z000		
PLOTTED BY	KerrT				CONTRACT NO.	LOCATION NO. XL-1234	SHEET OF SHEETS
DESIGNED BY	DESIGNER						
ENTERED BY	CAD OPERATOR						
CHECKED BY	TEAM LEAD						
PROJ. ENGR.	PROJECT ENGINEER						
REGIONAL ADM.	REGIONAL ADM.	REVISION	DATE	BY			

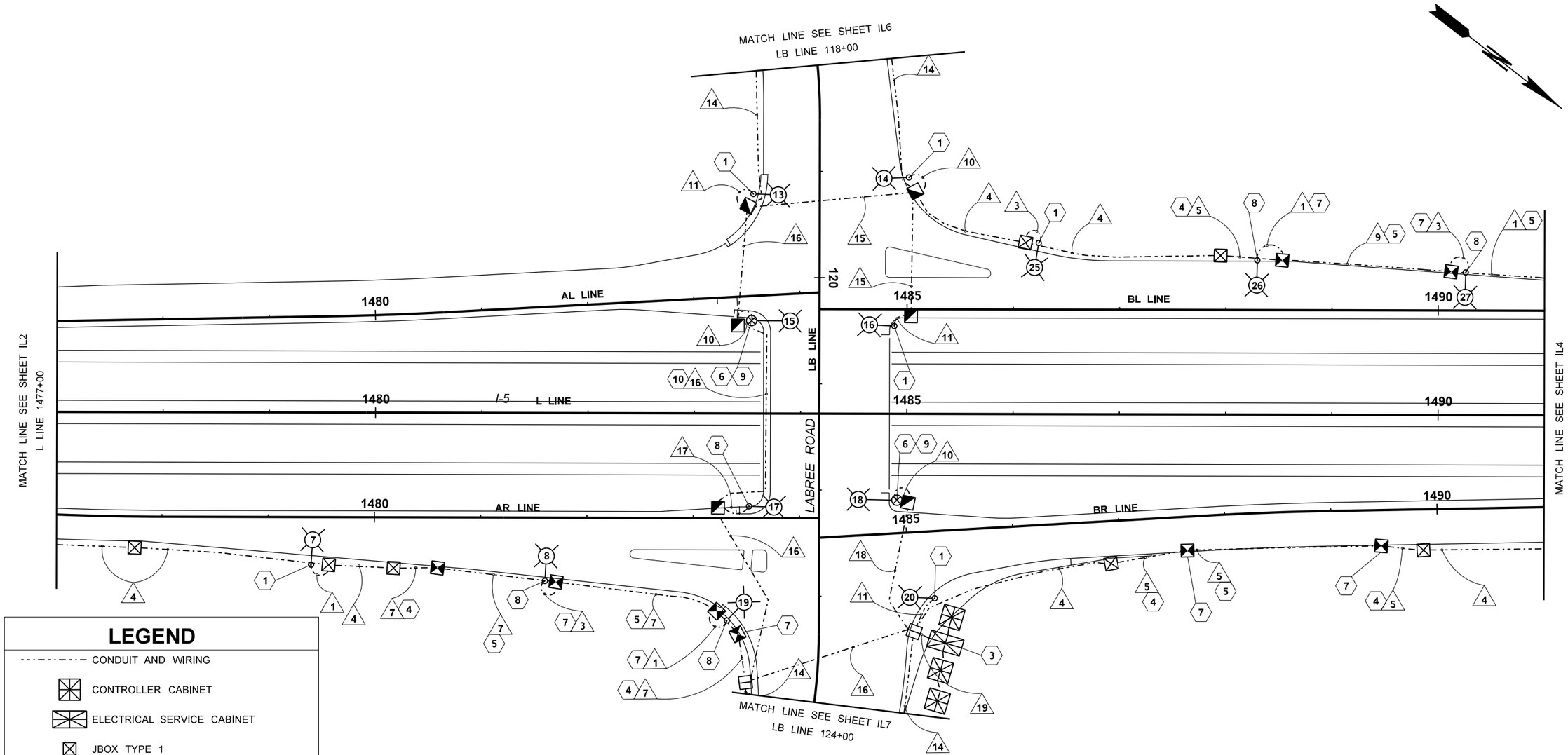
P.E. STAMP BOX — DATE

P.E. STAMP BOX — DATE

Washington State Department of Transportation

EXAMPLE 4-36
I-5 AND LABREE RD INTERCHANGE
SAMPLE PROJECT

PAVEMENT MARKING PLAN



LEGEND

- CONDUIT AND WIRING
- CONTROLLER CABINET
- ELECTRICAL SERVICE CABINET
- JBOX TYPE 1
- JBOX TYPE 2
- JBOX TYPE 7 NO LOCK
- JBOX NEMA
- LIGHT STD SINGLE METAL - SEE LUMINAIRE SCHEDULE
- WIRE SCHEDULE NOTE
- CONSTRUCTION NOTE

FILE NAME	C:\AAWork\Manuals\PPM\2012\Div 4 Example files\PPM_Div4_PS_IL.dgn				REGION NO.	STATE	FED.AID PROJ.NO.
TIME	3:24:33 PM				10	WASH	NH-0000(000)
DATE	9/5/2012				JOB NUMBER		
PLOTTED BY	KerrT				00Z000		
DESIGNED BY	DESIGNER				CONTRACT NO.		LOCATION NO.
ENTERED BY	CAD OPERATOR						XL-1234
CHECKED BY	TEAM LEAD						
PROJ. ENGR.	PROJECT ENGINEER						
REGIONAL ADM.	REGIONAL ADM.	REVISION	DATE	BY			

P.E. STAMP BOX — DATE

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Washington State Department of Transportation

EXAMPLE 4-37
I-5 AND LABREE RD INTERCHANGE
SAMPLE PROJECT

ILLUMINATION PLAN

Plot 3	
PLAN REF NO	IL3
SHEET	
OF	
SHEETS	

LUMINAIRE SCHEDULE — SERVICE NO. S*** ****

LUMINAIRE NUMBER	CIRCUIT	LOCATION STATION	LOCATION OFFSET	TYPE - DISTRIBUTION - WATTAGE	MAST ARM	H1	BASE TYPE	COMMENTS
1	*	L 1453+06.4	68.6' LT	III - MED CUTOFF - 400 HPS	16'	40'	SLIP	
2	*	L 1455+44.3	73.4' LT	III - MED CUTOFF - 400 HPS	16'	40'	SLIP	
3	*	L 1466+85.4	77.1' LT	III - MED CUTOFF - 400 HPS	16'	40'	SLIP	
4	*	L 1469+17.5	89.0' RT	III - MED CUTOFF - 400 HPS	16'	40'	SLIP	
5	*	AL 1473+78.4	33.6' LT	III - MED CUTOFF - 400 HPS	16'	40'	SLIP	
6	*	AL 1476+10.4	38.4' LT	III - MED CUTOFF - 310 HPS	16'	40'		
7	*	AR 1479+40.4	44.8' RT	III - MED CUTOFF - 310 HPS	16'	40'		
8	*	AR 1481+60.6	59.6' RT	III - MED CUTOFF - 310 HPS	16'	40'	FIXED	ON WALL
9	*	LB 115+59.2	51.9' RT	III - MED CUTOFF - 310 HPS	16'	40'		
10	*	LB 115+51.7	51.7' LT	III - MED CUTOFF - 310 HPS	16'	40'		
11	*	LB 117+39.2	57.3' RT	III - MED CUTOFF - 310 HPS	16'	40'	FIXED	
12	*	LB 117+31.7	69.9' LT	III - MED CUTOFF - 310 HPS	16'	40'		
13	*	LB 119+12.8	55.5' RT	III - MED CUTOFF - 310 HPS	16'	40'		
14	*	LB 119+05.5	83.8' LT	III - MED CUTOFF - 310 HPS	16'	40'		
15	*	LB 120+40.6	63.9' RT	III - MED CUTOFF - 310 HPS	16'	40'		ON SIGNAL STANDARD
16	*	LB 120+45.5	70.4' LT	III - MED CUTOFF - 310 HPS	16'	40'		
17	*	LB 122+15.4	65.9' RT	III - MED CUTOFF - 310 HPS	16'	40'		
18	*	LB 121+87.2	74.5' LT	III - MED CUTOFF - 310 HPS	16'	40'		ON SIGNAL STANDARD
19	*	LB 123.22.9	86.5' RT	III - MED CUTOFF - 310 HPS	16'	40'	FIXED	ON WALL
20	*	LB 123+01.7	109.0' LT	III - MED CUTOFF - 310 HPS	16'	40'		
21	*	LB 125+59.8	57.3' RT	III - MED CUTOFF - 310 HPS	16'	40'		
22	*	LB 124+54.9	85.7' LT	III - MED CUTOFF - 310 HPS	16'	40'		
23	*	LB 126+04.3	53.5' RT	III - MED CUTOFF - 400 HPS	16'	40'	FIXED	
24	*	LB 126+06.8	75.2' LT	III - MED CUTOFF - 400 HPS	16'	40'	FIXED	
25	*	BL 1486+23.8	62.7' LT	III - MED CUTOFF - 310 HPS	16'	40'	FIXED	
26	*	BL 1488+29.6	46.9' LT	III - MED CUTOFF - 310 HPS	16'	40'	FIXED	ON WALL
27	*	BL 1490+25.7	35.9' LT	III - MED CUTOFF - 310 HPS	16'	40'	FIXED	ON WALL
28	*	BR 1492+42.2	38.2' RT	III - MED CUTOFF - 400 HPS	16'	40'	SLIP	
29	*	BR 1494+74.2	33.7' RT	III - MED CUTOFF - 400 HPS	16'	40'	SLIP	
30	*	L 1501+13.8	88.9' LT	III - MED CUTOFF - 400 HPS	16'	40'	SLIP	
31	*	L 1503+45.8	77.3' LT	III - MED CUTOFF - 400 HPS	16'	40'	SLIP	
32	*	L 1513+09.8	73.3' LT	III - MED CUTOFF - 400 HPS	16'	40'	SLIP	
33	*	L 1515+41.9	68.7' LT	III - MED CUTOFF - 400 HPS	16'	40'	SLIP	
34	*	MSB 503+79.5	47.9' RT	III - MED CUTOFF - 310 HPS	16'	40'	FIXED	
35	*	MSB 505+16.8	46.4' RT	III - MED CUTOFF - 310 HPS	16'	40'	FIXED	
36	*	MSB 506+39.9	67.4' RT	III - MED CUTOFF - 310 HPS	16'	40'	FIXED	
37	*	LB 127+56.5	56.4' LT	III - MED CUTOFF - 310 HPS	16'	40'	FIXED	
38	*	LB 127+56.4	56.5' RT	III - MED CUTOFF - 310 HPS	16'	40'	FIXED	
39	*	LB 129+03.3	56.4' LT	III - MED CUTOFF - 310 HPS	16'	40'	FIXED	
40	*	LB 128+99.6	57.8' LT	III - MED CUTOFF - 310 HPS	16'	40'	FIXED	
41	*	LB 130+02.7	62.4' RT	III - MED CUTOFF - 310 HPS	16'	40'		ON SIGNAL STANDARD
42	*	LB 130+21.4	50.4' LT	III - MED CUTOFF - 310 HPS	16'	40'		ON SIGNAL STANDARD
43	*	MSB 508+15.9	59.6' RT	III - MED CUTOFF - 310 HPS	16'	40'		ON SIGNAL STANDARD
44	*	MSB 508+36.4	88.3' LT	III - MED CUTOFF - 310 HPS	16'	40'	FIXED	
45	*	MSB 510+11.1	66.4' LT	III - MED CUTOFF - 310 HPS	16'	40'	FIXED	
46	*	MSB 509+93.9	39.6' RT	III - MED CUTOFF - 310 HPS	16'	40'	FIXED	
47	*	MSB 512+02.1	61.7' LT	III - MED CUTOFF - 310 HPS	16'	40'	FIXED	
48	*	MSB 512+00.4	41.6' RT	III - MED CUTOFF - 310 HPS	16'	40'	FIXED	
49	*	LB 132+39.4	47.1' RT	III - MED CUTOFF - 310 HPS	16'	40'	FIXED	
50	*	LB 132+33.0	63.8' LT	III - MED CUTOFF - 310 HPS	16'	40'	FIXED	
51	*	LB 134+35.5	39.6' RT	III - MED CUTOFF - 310 HPS	16'	40'	FIXED	
52	*	LB 134+23.5	63.6' LT	III - MED CUTOFF - 310 HPS	16'	40'	FIXED	
53	*	LB 111+77.0	28.0' LT	III - MED CUTOFF - 310 HPS	16'	40'		
54	*	LB 111+72.6	42.1' RT	III - MED CUTOFF - 310 HPS	16'	40'		
55	*	LB 110+00.9	44.4' RT	III - MED CUTOFF - 310 HPS	16'	40'	FIXED	
56	*	LB 109+48.5	34.3' LT	III - MED CUTOFF - 310 HPS	16'	40'	FIXED	
57	*	LB 107+55.1	34.6' LT	III - MED CUTOFF - 310 HPS	16'	40'	FIXED	
58	*	LB 107+55.2	33.4' RT	III - MED CUTOFF - 310 HPS	16'	40'	FIXED	

LUMINAIRE SCHEDULE — SERVICE NO. S*** ****

LUMINAIRE NUMBER	CIRCUIT	LOCATION STATION	LOCATION OFFSET	TYPE - DISTRIBUTION - WATTAGE	MAST ARM	H1	BASE TYPE	COMMENTS
59	*	H 1731+32.5	34.6' LT	III - MED CUTOFF - 310 HPS	16'	40'	FIXED	
60	*	H 1731+22.5	30.3' RT	III - MED CUTOFF - 310 HPS	16'	40'	FIXED	
61	*	H 1729+86.8	27.2' LT	III - MED CUTOFF - 310 HPS	16'	40'	FIXED	

WIRING SCHEDULE — SERVICE NO. __ __

△ NO.	CONDUIT SIZE	CONDUCTORS EXISTING	CONDUCTORS NEW	CIRCUIT	COMMENTS
1	1"		2-#8	A	ILLUMINATION
2	1½"		2-#8	A	ILLUMINATION
3	1"		2-#8	B	ILLUMINATION
4	1½"		4-#8	A,B	ILLUMINATION
5	2"		4-#8	A,B	ILLUMINATION
	2"		SPARE	—	FUTURE
6	1½"		2-#8	B	ILLUMINATION
7	2"		4-#8	A,B	ILLUMINATION
8	2"		SPARE	—	FUTURE
9	2"		2-#8	B	ILLUMINATION
	2"		---	—	SEE SIGNAL PLANS
10	1"		2-#8	C	ILLUMINATION
11	1"		2-#8	D	ILLUMINATION
12	1½"		2-#8	C	ILLUMINATION
13	1½"		2-#8	D	ILLUMINATION
14	1½"		4-#8	C,D	ILLUMINATION
15	2"		2-#8	D	ILLUMINATION
	2"		SPARE	—	FUTURE
16	2"		8-#8	A,B,C,D	ILLUMINATION
	2"		SPARE	—	FUTURE
17	2"		2-#8	D	ILLUMINATION
18	2"		2-#8	C	ILLUMINATION
	2"		SPARE	—	FUTURE
19	2"		8-#8	A,B,C,D	ILLUMINATION
	2-2"		SPARE	—	FUTURE
20	1"		2-#8	A	ILLUMINATION
21	2"		2-#8	A	ILLUMINATION
22	1"		2-#8	B	ILLUMINATION
23	2"		4-#8	A,B	ILLUMINATION
24	2"		2-#8	B	ILLUMINATION
25	1"		2-#8	C	ILLUMINATION
26	2"		2-#8	C	ILLUMINATION
27	1"		2-#8	D	ILLUMINATION
28	2"		4-#8	C,D	ILLUMINATION
29	2"		2-#8	D	ILLUMINATION
30	2"		8-#8	A,B,C,D	ILLUMINATION
	2"		SPARE	---	FUTURE
31	2"		8-#8	A,B,C,D	ILLUMINATION
	2"		SPARE	---	FUTURE
32	2"		2-#6	F	SIGNAL POWER

FILE NAME	C:\AAWork\Manuals\PPM\2012\Div 4 Example files\PPM_Div4_PS_IL.dgn				REGION NO.	STATE	FED.AID PROJ.NO.	
TIME	3:24:45 PM				10	WASH	NH-0000(000)	
DATE	9/5/2012				JOB NUMBER			
PLOTTED BY	KerrT				00Z000			
DESIGNED BY	DESIGNER				CONTRACT NO.		LOCATION NO.	
ENTERED BY	CAD OPERATOR						XL-1234	
CHECKED BY	TEAM LEAD							
PROJ. ENGR.	PROJECT ENGINEER							
REGIONAL ADM.	REGIONAL ADM.	REVISION	DATE	BY				

P.E. STAMP BOX — DATE

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Washington State Department of Transportation

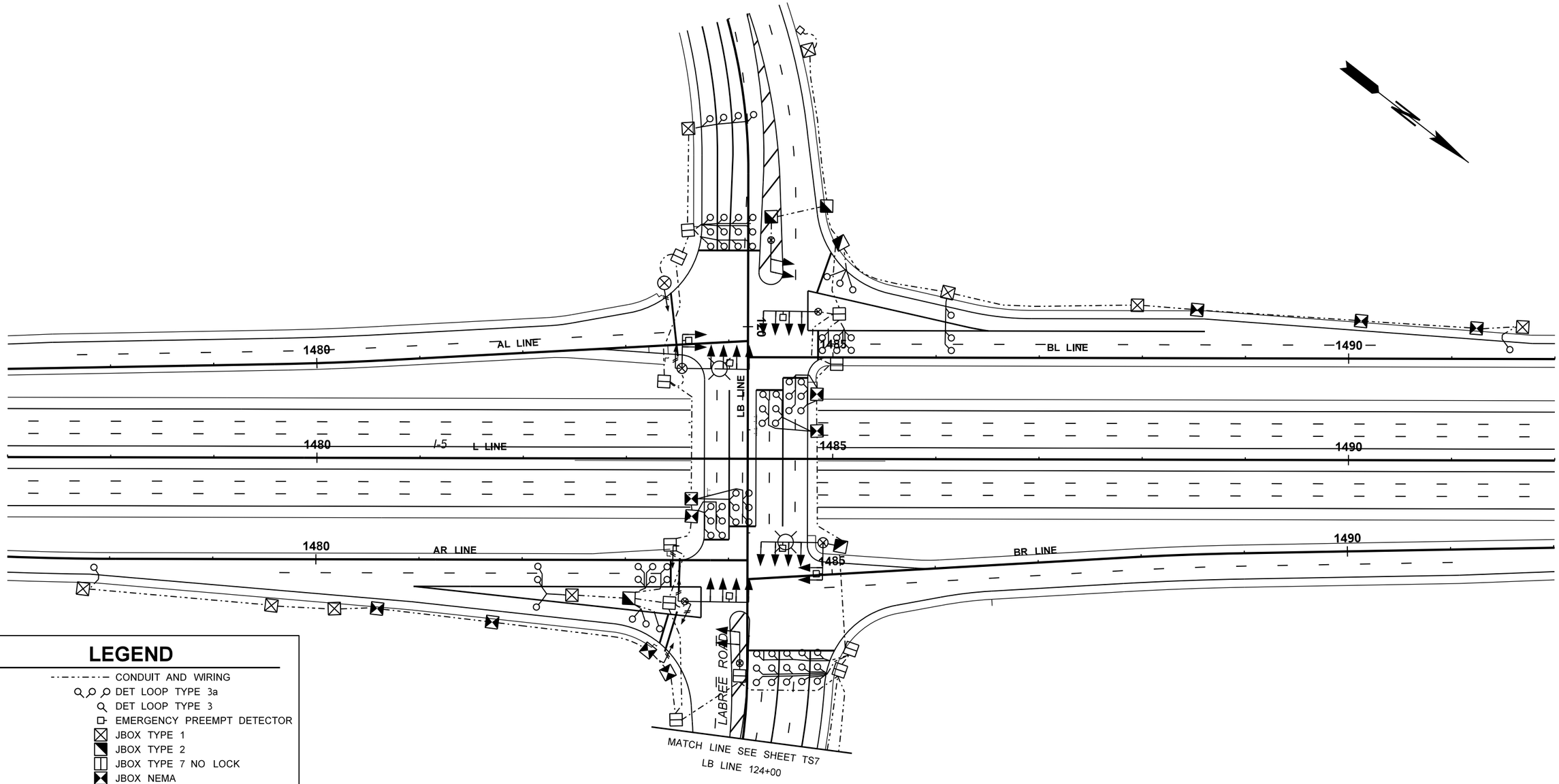
EXAMPLE 4-38
I-5 AND LABREE RD INTERCHANGE
SAMPLE PROJECT

ILLUMINATION SCHEDULE

Plot 9

PLAN REF NO
IL9

SHEET
OF
SHEETS



LEGEND

- CONDUIT AND WIRING
- DET LOOP TYPE 3a
- DET LOOP TYPE 3
- EMERGENCY PREEMPT DETECTOR
- JBOX TYPE 1
- JBOX TYPE 2
- JBOX TYPE 7 NO LOCK
- JBOX NEMA
- PED PUSH BUTTON POST
- PED SIGNAL HEAD LEFT
- PED SIGNAL HEAD RIGHT
- PED SIGNAL HEAD STRAIGHT
- SIGNAL HEAD
- SIGNAL STD TYPE 1 OR 4
- SIGNAL STD TYPE 3

0 50 100
SCALE IN FEET

SHEETS TS1 AND TS2 INTENTIONALLY OMITTED FROM PLAN SET

FILE NAME	C:\AAWork\Manuals\PPM\2012\Div 4 Example files\PPM_Div4_PS_TS.dgn				REGION NO. 10 / STATE WASH	FED.AID PROJ.NO. NH-0000(000)	Plot 3
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DATE	9/5/2012				JOB NUMBER 00Z000		
PLOTTED BY	KerrT						SHEET
DESIGNED BY	DESIGNER				CONTRACT NO.	LOCATION NO. XL-1234	OF
ENTERED BY	CAD OPERATOR						SHEETS
CHECKED BY	TEAM LEAD						
PROJ. ENGR.	PROJECT ENGINEER						
REGIONAL ADM.	REGIONAL ADM.	REVISION	DATE	BY			

P.E. STAMP BOX / DATE

P.E. STAMP BOX / DATE

Washington State Department of Transportation

EXAMPLE 4-39
I-5 AND LABREE RD INTERCHANGE
SAMPLE PROJECT

ITS PLANS

SIGN REMOVAL SPECIFICATIONS

SIGN NO.	SIGN CODE (DESCRIPTION)	LOCATION	SIGN SIZE X	SIGN SIZE Y	POST MATERIAL	POST SIZE	REMARKS	SIGN NO.	SIGN CODE (DESCRIPTION)	LOCATION	SIGN SIZE X	SIGN SIZE Y	POST MATERIAL	POST SIZE	REMARKS
R-1	R1-1 STOP	MP 9.03 RT	36"	36"	WOOD	4"x4"		R-36	D10-201(11) MILE	MP 11.00 RT	14"	27"	---	---	SIGN ONLY
R-2	D3-101 STREET NAME	—	30"	6"	—	---	ABOVE R-1	R-37	W2-3(225 DEG.) SIDE RD	MP 11.15 RT	30"	30"	WOOD	4"x4"	
R-3	D3-101 STREET NAME	—	30"	6"	—	---	BEHIND R-2	R-38	W2-3(135 DEG.) SIDE RD	MP 11.15 LT	30"	30"	WOOD	4"x4"	
R-4	W2-2L SIDE ROAD SYMBOL	MP 9.13 LT	30"	30"	WOOD	4"x4"		R-39	R1-1 STOP	MP 11.30 LT	36"	36"	WOOD	4"x4"	
R-5	D3-201 SIDE ROAD NAME	—	36"	12"	—	---	BELOW R-4	R-40	W1-8L CHEVRON	—	24"	30"	---	---	BEHIND R-39
R-6	R1-1 STOP	MP 9.29 RT	36"	36"	WOOD	4"x4"		R-41	W-SPEC. CURVE LEFT	MP 11.35 LT	36"	36"	WOOD	4"x4"	
R-7	D3-101 STREET NAME	—	30"	6"	—	---	ABOVE R-6	R-42	D3-201 SIDE ROAD NAME	—	60"	9"	---	---	BELOW R-41
R-8	D3-101 STREET NAME	—	30"	6"	—	---	BEHIND R-7	R-43	W1-2L CURVE LEFT	MP 11.45 LT	30"	30"	WOOD	4"x4"	
R-9	W11-2 ADVANCE PED XING	MP 9.53 LT	36"	36"	—	---	SIGN ONLY	R-44	W8-6 TRUCK CROSSING	MP 12.39 RT	36"	36"	WOOD	4"x4"	
R-10	W-SPEC. CURVE RIGHT	MP 9.61 LT	36"	36"	WOOD	4"x4"		R-45	D7-7701 RECREATION	MP 12.74 RT	96"	60"	WOOD	6"x6"	2 POSTS
R-11	W1-2R CURVE RIGHT	MP 9.62 RT	36"	36"	WOOD	4"x4"		R-46	E7-1 MILEAGE	MP 12.92 LT	144"	48"	WOOD	4"x6"	2 POSTS
R-12	W13-1(45) MPH	—	24"	24"	—	---	BELOW R-11	R-47	D10-201(13) MILE	MP 13.00 RT	10"	27"	METAL	2"x2"	
R-13	W2-2L SIDE ROAD SYMBOL	MP 9.66 RT	30"	30"	WOOD	4"x4"		R-48	D7-7701 RECREATION	MP 13.38 LT	96"	60"	WOOD	4"x6"	2 POSTS
R-14	D3-201 SIDE ROAD NAME	—	48"	9"	—	---	BELOW R-13	R-49	E7-1 MILEAGE	MP 13.44 RT	84"	36"	WOOD	4"x6"	
R-15	R1-1 STOP	MP 9.80 LT	30"	30"	WOOD	4"x4"		R-50	W2-1 CROSSROAD SYMBOL	MP 14.09 RT	36"	36"	WOOD	4"x4"	
R-16	D3-103 STREET NAME	—	24"	6"	—	---	ABOVE R-15	R-51	D3-201 CROSSROAD NAME	—	36"	9"	---	---	BELOW R-50
R-17	D1-201 DESTINATION	MP 9.80 RT	60"	48"	WOOD	6"x6"		R-52	R1-1 STOP	MP 14.19 LT	36"	36"	WOOD	4"x4"	
R-18	W1-2L CURVE LEFT	MP 9.81 LT	30"	30"	WOOD	4"x4"		R-53	R1-1 STOP	MP 14.19 RT	36"	36"	WOOD	4"x4"	
R-19	W13-1(40) MPH	—	18"	18"	—	---	BELOW R-18	R-54	W2-1 CROSSROAD SYMBOL	MP 14.28 LT	36"	36"	WOOD	4"x4"	
R-20	W1-2R CURVE RIGHT	MP 9.83 Rt	30"	30"	WOOD	4"x4"		R-55	D3-201 CROSSROAD NAME	—	36"	9"	---	---	BELOW R-54
R-21	W13-1(45) MPH	—	18"	18"	—	---	BELOW R-20	R-56	W14-3 DO NOT PASS	MP 14.39 RT	48"	36"	WOOD	4"x4"	
R-22	W1-2L CURVE LEFT	MP 9.95 LT	30"	30"	WOOD	4"x4"		R-57	W2-2L SIDE ROAD SYMBOL	MP 14.82 LT	30"	30"	WOOD	4"x4"	
R-23	W13-1(45) MPH	—	18"	18"	—	---	BELOW R-22	R-58	D3-201 SIDE ROAD NAME	—	36"	9"	---	---	BELOW R-57
R-24	D10-2(10) MILE	MP 10.00 RT	10"	27"	WOOD	4"x4"		R-59	D3-302 CROSSROAD W/CHEVRON	MP 15.00 RT	60"	12"	WOOD	4"x4"	
R-25	D10-2(10) MILE	—	10"	27"	—	---	BEHIND R-24	R-60	D10-2(15) MILE	—	10"	27"	---	---	BELOW R-59
R-26	R1-1 STOP	MP 10.09 RT	30"	30"	WOOD	4"x4"		R-61	D10-2(15) MILE	—	10"	27"	---	---	BEHIND R-60
R-27	W2-2L SIDE ROAD SYMBOL	MP 10.16 LT	30"	30"	WOOD	4"x4"		R-62	R1-1 STOP	MP 15.09 LT	30"	30"	WOOD	4"x4"	
R-28	W2-2R SIDE ROAD SYMBOL	MP 10.20 RT	30"	30"	WOOD	4"x4"		R-63	W2-2R SIDE ROAD SYMBOL	MP 15.20 LT	30"	30"	WOOD	4"x4"	
R-29	D3-201 SIDE ROAD NAME	—	42"	9"	—	---	BELOW R-28	R-64	D3-201 SIDE ROAD NAME	—	30"	6"	---	---	BELOW R-63
R-30	R1-1 STOP	MP 10.27 RT	30"	30"	WOOD	4"x4"		R-65	W2-2R SIDE ROAD SYMBOL	MP 15.60 RT	36"	36"	WOOD	4"x4"	
R-31	D3-103 STREET NAME	—	24"	6"	—	---	ABOVE R-30	R-66	D3-201 SIDE ROAD NAME	—	36"	9"	---	---	BELOW R-65
R-32	W2-3(315 DEG.) SIDE RD	MP 10.95 RT	36"	36"	WOOD	4"x4"		R-67	R1-1 STOP	MP 15.70 RT	36"	36"	WOOD	4"x4"	
R-33	D3-201 SIDE ROAD NAME	—	40"	9"	—	---	BELOW R-32	R-68	D3-101 STREET NAME	—	24"	6"	---	---	ABOVE R-67
R-34	M1-601(161) ROUTE MARKER	MP 10.95 LT	24"	24"	WOOD	4"x4"		R-69	D3-101 STREET NAME	—	24"	6"	---	---	BEHIND R-68
R-35	M3-3 SOUTH	—	24"	12"	—	---	ABOVE R-34								

NOTES:

STATION LOCATIONS AND POST SIZES SHOWN ARE APPROXIMATE ONLY.

FILE NAME	C:\AAWork\Manuals\PPM\2012\Div 4 Example files\PPM_Div_4_Example_1-40.dgn				REGION NO.	STATE	FED.AID PROJ.NO.			Plot 40
TIME	3:35:21 PM				10	WASH	NH-0000(000)		Washington State Department of Transportation	EXAMPLE 4-40
DATE	9/5/2012				JOB NUMBER					SS1
PLOTTED BY	KerrT				00Z000					SHEET
DESIGNED BY	DESIGNER				CONTRACT NO.		LOCATION NO.			OF
ENTERED BY	CAD OPERATOR						XL-1234			SHEETS
CHECKED BY	TEAM LEADER									
PROJ. ENGR.	PROJECT ENGINEER									
REGIONAL ADM.	REGIONAL ADM.	REVISION	DATE	BY				P.E. STAMP BOX DATE	P.E. STAMP BOX DATE	SIGN SPECIFICATIONS

SIGN SPECIFICATIONS

ROADSIDE SIGN STRUCTURES

SIGN NO.	SIGN CODE (DESCRIPTION)	LOCATION	SIGN SIZE X	SIGN SIZE Y	SHEETING TYPE	LETTER SIZE OR CODE	POST MATERIAL	POST SIZE	POST LENGTH H 1	POST LENGTH H 2	POST LENGTH H 3	POST LENGTH H 4	CLEARANCE V	CLEARANCE W	REMARKS
1	R1-1 STOP	MP 9.03 RT	36"	36"	III or IV		WOOD	4"x6"	16'				7'	20'	
2	D3-103 STREET NAME	—	72"	16"	*	6" C	—	---	---				10'	—	INSTALL ABOVE SIGN NO. 1
3	W2-2L SIDE ROAD SYMBOL	MP 9.13 LT	36"	36"	II		WOOD	4"x6"	20'				7'	13'	
4	D3-201 SIDE ROAD NAME	—	60"	9"	II	5" C	—	---	---				6.25'	—	INSTALL BELOW SIGN NO. 3
5	R1-1 STOP	MP 9.29 RT	36"	36"	III or IV		WOOD	4"x6"	16'				7'	20'	
6	D3-103 STREET NAME	—	72"	16"	*	6" C	—	---	---				10'	—	INSTALL ABOVE SIGN NO. 5
7	W11-2 ADVANCE PED XING	MP 9.53 LT	36"	36"	II		—	---	---				7'	—	INSTALL ON EXISTING METAL 2"X2" POST
8	W-SPEC. CURVE RIGHT	MP 9.61 LT	36"	36"	II		WOOD	4"x6"	16'				7'	11'	
9	D3-201 SIDE ROAD NAME	—	60"	9"	II	5" C	—	---	---				6.25'	—	INSTALL BELOW SIGN NO. 8
10	W1-2R CURVE RIGHT	MP 9.62 RT	36"	36"	II		WOOD	4"x6"	18'				8'	9'	
11	W13-1(45) MPH	—	24"	24"	II		—	---	---				6'	—	INSTALL BELOW SIGN NO. 10
12	W2-2L SIDE ROAD SYMBOL	MP 9.66 RT	36"	36"	II		WOOD	4"x6"	16'				7'	9'	
13	D3-201 SIDE ROAD NAME	—	48"	9"	II	5" D	—	---	---				6.25'	—	INSTALL BELOW SIGN NO. 12
14	R1-1 STOP	MP 9.80 LT	36"	36"	III or IV		WOOD	4"x6"	16'				7'	27'	
15	D3-103 STREET NAME	—	54"	16"	*	6" D	—	---	---				10'	—	INSTALL ABOVE SIGN NO. 14
16	D1-201 DESTINATION	MP 9.80 RT	60"	48"	*	6" C/6" D	WOOD	6"X8"	16'				7'	14'	
17	W1-2L CURVE LEFT	MP 9.81 LT	36"	36"	II		WOOD	4"x6"	18'				8'	12'	
18	W13-1(40) MPH	—	24"	24"	II		—	---	---				6'	—	INSTALL BELOW SIGN NO. 17
19	W1-2R CURVE RIGHT	MP 9.83 RT	36"	36"	II		WOOD	4"x6"	18'				8'	14'	
20	W13-1(45) MPH	—	24"	24"	II		—	---	---				6'	—	INSTALL BELOW SIGN NO. 19
21	W2-2R SIDE ROAD SYMBOL	MP 9.88 LT	36"	36"	II		WOOD	4"x6"	16'				7'	16'	
22	D3-201 SIDE ROAD NAME	—	48"	9"	II	5" D	—	---	---				6.25'	—	INSTALL BELOW SIGN NO. 21
23	W1-2L CURVE LEFT	MP 9.95 LT	36"	36"	II		WOOD	4"x6"	18'				8.5'	8'	
24	W13-1(45) MPH	—	24"	24"	II		—	---	---				6.5'	—	INSTALL BELOW SIGN NO. 23
25	D10-201(10) MILE	MP 10.00 RT	14"	27"	II		WOOD	4"x4"	10'				4'	15'	
26	R1-1 STOP	MP 10.09 RT	36"	36"	III or IV		WOOD	4"x6"	16'				7'	20'	
28	W2-2L SIDE ROAD SYMBOL	MP 10.16 LT	36"	36"	II		WOOD	4"x6"	16'				7'	10'	
29	D3-201 SIDE ROAD NAME	—	48"	9"	II	5" C	—	---	---				6.25'	—	INSTALL BELOW SIGN NO. 28
30	W2-2R SIDE ROAD SYMBOL	MP 10.20 RT	36"	36"	II		WOOD	4"x6"	16'				7'	10'	
31	D3-201 SIDE ROAD NAME	—	48"	9"	II	5" C	—	---	---				6.25'	—	INSTALL BELOW SIGN NO. 30
32	R1-1 STOP	MP 10.27 RT	36"	36"	III or IV		WOOD	4"x6"	16'				7'	30'	
33	D3-103 STREET NAME	—	60"	16"	*	6" D	—	---	---				10'	—	INSTALL ABOVE SIGN NO. 32
34	W2-3(315 DEG.) SIDE ROAD	MP 10.95 RT	36"	36"	II		WOOD	4"x6"	16'				7'	13'	
35	D3-201 SIDE ROAD NAME	—	48"	9"	II	5" D	—	---	---				6.25'	—	INSTALL BELOW SIGN NO. 34
36	M1-701(SOUTH 161) ROUTE	MP 10.95 LT	24"	36"	II		WOOD	4"x4"	14'				7'	15'	
37	D10-201(11) MILE	MP 11.00 RT	14"	27"	II		—	---	---				4'	—	INSTALL ON EXISTING METAL 2"X2" POST

NOTES:

POST LENGTHS SHOWN ARE APPROXIMATE. FINAL VALUES SHALL BE DETERMINED IN THE FIELD PRIOR TO FABRICATION.
STEEL POST SIZES SHOWN ARE AASHTO M183. FOR STRUCTURE AND MOUNTING DETAILS SEE STANDARD PLAN SHEET SERIES G.
FOR CODE REFERENCES AND STANDARD SIGN LAYOUT DETAILS SEE WASHINGTON STATE "SIGN FABRICATION MANUAL".
TYPE II FOR BACKGROUNDS; TYPE III OR IV FOR LETTERS, BORDERS & SYMBOLS.

FILE NAME	C:\AAWork\Manuals\PPM\2012\Div 4 Example files\PPM_Div_4_Example_41-54.dgn				REGION NO. 10	STATE WASH	FED.AID PROJ.NO. NH-0000(000)	Plot 1
TIME	3:36:06 PM							SS2
DATE	9/5/2012							
PLOTTED BY	KerrT				JOB NUMBER 00Z000			SHEET
DESIGNED BY	DESIGNER							OF
ENTERED BY	CAD OPERATOR							SHEETS
CHECKED BY	TEAM LEADER				CONTRACT NO.		LOCATION NO. XL-1234	
PROJ. ENGR.	PROJECT ENGINEER							
REGIONAL ADM.	REGIONAL ADM.	REVISION	DATE	BY				

P.E. STAMP BOX DATE

P.E. STAMP BOX DATE

Washington State Department of Transportation

EXAMPLE 4-41

SIGN SPECIFICATIONS

SIGN RELOCATION SPECIFICATIONS

SIGN NO.	SIGN CODE (DESCRIPTION)	EXISTING LOCATION	PROPOSED LOCATION	SIGN SIZE		POST MATERIAL	POST SIZE	POST LENGTH				CLEARANCE		REMARKS
				X	Y			H 1	H 2	H 3	H 4	V	W	
27	D3-103 STREET NAME	MP 10.09 RT	MP 10.09 RT	30"	6"	---	---	---				10'	---	RELOCATE ABOVE SIGN NO. 26
42	D3-103 STREET NAME	MP 11.30 LT	MP 11.30 LT	48"	9"	---	---	---				10'	---	RELOCATE ABOVE SIGN NO. 40
58	D3-103 STREET NAME	MP 14.19 LT	MP 14.19 LT	48"	12"	---	---	---				10'	---	RELOCATE ABOVE SIGN NO. 57
60	D3-101 STREET NAME	MP 14.19 RT	MP 14.19 RT	48"	12"	---	---	---				10'	---	RELOCATE ABOVE SIGN NO. 59
61	D3-101 STREET NAME	---	---	48"	12"	---	---	---				10'	---	RELOCATE BEHIND SIGN NO. 60
70	D3-103 STREET NAME	MP 15.09 LT	MP 15.09 LT	48"	12"	---	---	---				10'	---	RELOCATE ABOVE SIGN NO. 69

NOTES:

EXISTING SIGN LOCATIONS ARE APPROXIMATE ONLY.
POST LENGTHS SHOWN ARE APPROXIMATE. FINAL VALUES SHALL BE DETERMINED IN THE FIELD PRIOR TO FABRICATION.
NEW POSTS MAY BE REQUIRED WHERE EXISTING POSTS DO NOT MEET STANDARDS.
FOR STRUCTURE AND MOUNTING DETAILS SEE STANDARD PLAN SHEET SERIES G.
FOR CODE REFERENCES AND STANDARD SIGN LAYOUT DETAILS SEE WASHINGTON STATE "SIGN FABRICATION MANUAL".
STEEL POST SIZES SHOWN ARE AASHTO M183.

FILE NAME	C:\AAWork\Manuals\PPM\2012\Div 4 Example files\PPM_Div_4_Example_41-54.dgn
TIME	3:36:34 PM
DATE	9/5/2012
PLOTTED BY	KerrT
DESIGNED BY	DESIGNER
ENTERED BY	CAD OPERATOR
CHECKED BY	TEAM LEADER
PROJ. ENGR.	PROJECT ENGINEER
REGIONAL ADM.	REGIONAL ADM.

REVISION | DATE | BY

REGION NO. 10 | STATE WASH | FED.AID PROJ.NO. NH-0000(000)

JOB NUMBER 00Z000

CONTRACT NO.

LOCATION NO. XL-1234

P.E. STAMP BOX DATE

P.E. STAMP BOX DATE

Washington State
Department of Transportation

EXAMPLE 4-42

SIGN SPECIFICATIONS

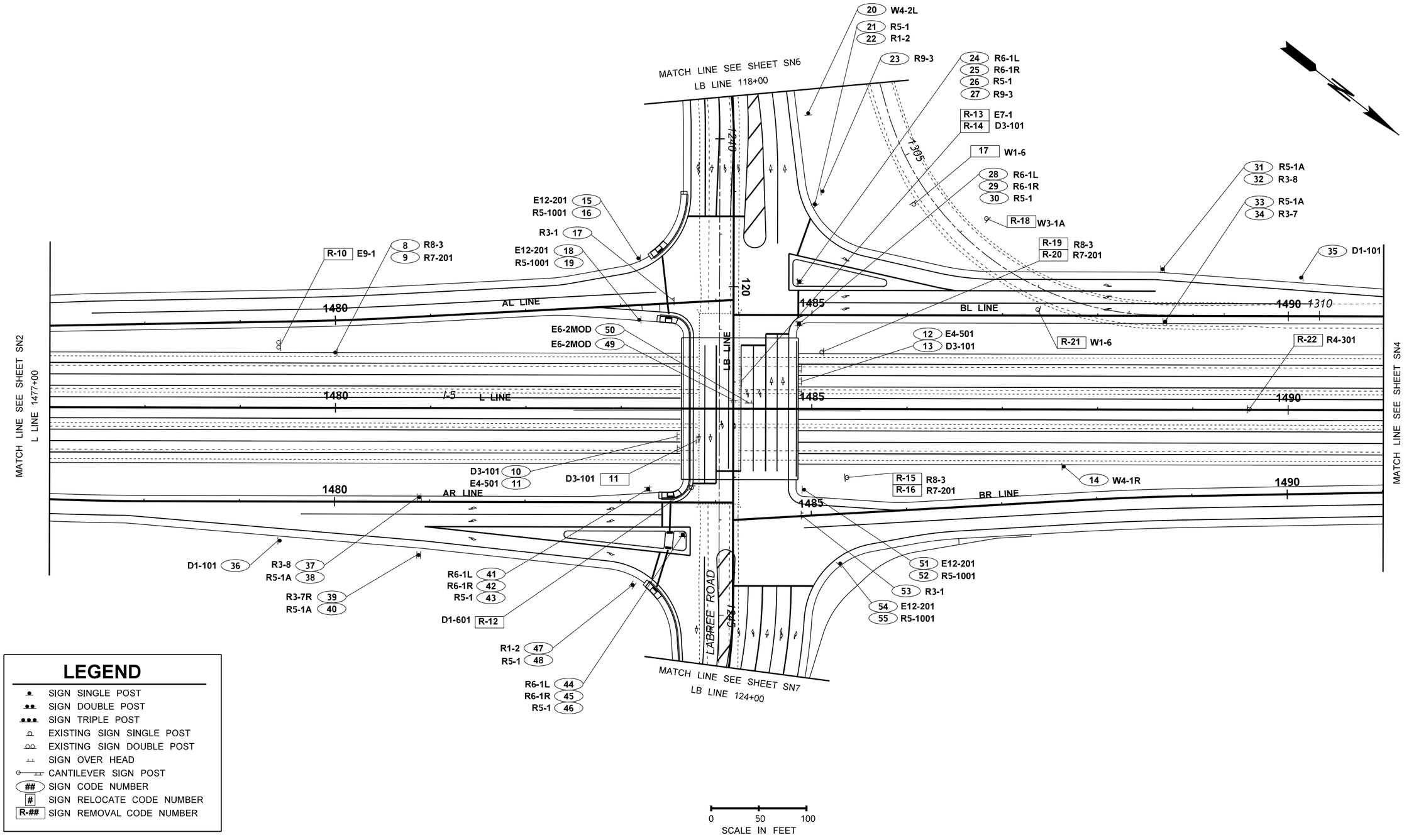
Plot 2

SS3

SHEET

OF

SHEETS



LEGEND

- SIGN SINGLE POST
- SIGN DOUBLE POST
- SIGN TRIPLE POST
- EXISTING SIGN SINGLE POST
- EXISTING SIGN DOUBLE POST
- SIGN OVER HEAD
- CANTILEVER SIGN POST
- (##) SIGN CODE NUMBER
- [#] SIGN RELOCATE CODE NUMBER
- [R-##] SIGN REMOVAL CODE NUMBER

FILE NAME	C:\AAWork\Manuals\PPM\2012\Div 4 Example files\PPM_Div4_PS_SN.dgn				REGION NO. 10 / STATE WASH	FED.AID PROJ.NO. NH-0000(000)
TIME	3:10:35 PM				JOB NUMBER 00Z000	
DATE	9/5/2012				CONTRACT NO.	LOCATION NO. XL-1234
PLOTTED BY	KerrT					
DESIGNED BY	DESIGNER					
ENTERED BY	CAD OPERATOR					
CHECKED BY	TEAM LEAD					
PROJ. ENGR.	PROJECT ENGINEER					
REGIONAL ADM.	REGIONAL ADM.	REVISION	DATE	BY		

P.E. STAMP BOX — DATE

P.E. STAMP BOX — DATE

Washington State Department of Transportation

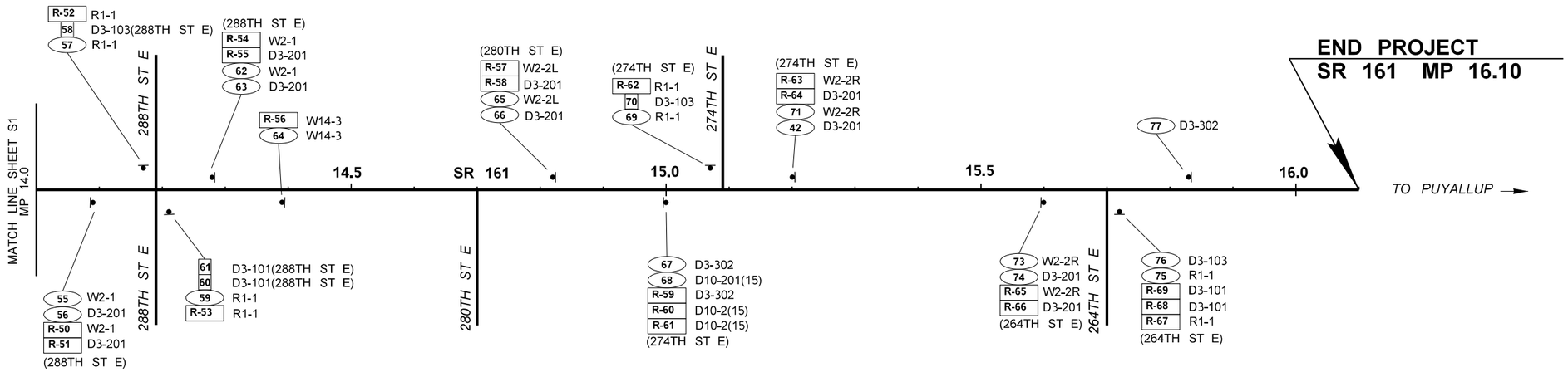
EXAMPLE 4-43
I-5 AND LABREE RD INTERCHANGE
SAMPLE PROJECT

SIGN PLAN

Plot 3

PLAN REF NO SN3

SHEET OF SHEETS



SIGN NO. 2
CLEAR LAKE RD S

SIGN NO. 4
CLEAR LAKE RD S
BLACK ON YELLOW

SIGN NO. 6
W CLEAR LK RD E

SIGN NO. 9
CLEAR LAKE RD N
BLACK ON YELLOW

SIGN NO. 8

BLACK ON YELLOW

SIGN NO. 13, 22
352ND ST E
BLACK ON YELLOW

SIGN NO. 15
352ND ST E

SIGN NO. 16
TANWAX LAKE } 6"C
PUYALLUP } 6"D
CLEAR LAKE } 6"C
EATONVILLE } 6"C
6"X9" ARROWS

SIGN NO. 29
THOMAS RD E
BLACK ON YELLOW

SIGN NO. 31
TANWAX DR E
BLACK ON YELLOW

SIGN NO. 33
TANWAX DR E

SIGN NO. 35
BENSTON RD
BLACK ON YELLOW

SIGN NO. 43

BLACK ON YELLOW

SIGN NO. 44
BARNEY LARSON RD
BLACK ON YELLOW

SIGN NO. 48

BENBOW REC FACILITIES NEXT RIGHT			
D9-3A	D7-1101	D7-1301	D7-2201

SIGN NO. 49

NW Trek	4
Eatonville	10
Mt Rainier	38

SIGN NO. 53

BENBOW REC FACILITIES NEXT LEFT			
D9-3A	D7-1101	D7-1301	D7-2201

SIGN NO. 54

Graham	5
Puyallup	16

SIGN NO. 56, 63
288TH ST E
BLACK ON YELLOW

SIGN NO. 66
280TH ST E
BLACK ON YELLOW

SIGN NO. 67
274TH ST E

SIGN NO. 72
274TH ST E
BLACK ON YELLOW

SIGN NO. 74
264TH ST E
BLACK ON YELLOW

SIGN NO. 76
264TH ST E

Sign No. 77
264TH ST E

NOT TO SCALE

LEGEND

? — NEW SIGN ASSEMBLY
R-___ — EXIST. SIGN ASSEMBLY TO BE REMOVED
? — EXIST. SIGN TO BE RELOCATED

FILE NAME	C:\AAWork\Manuals\PPM\2012\Div 4 Example files\PPM_Div_4_Example_41-54.dgn				REGION NO.	STATE	FED.AID PROJ.NO.	Plot 4
TIME	3:36:48 PM				10	WASH	NH-0000(000)	SP2
DATE	9/5/2012				JOB NUMBER			SHEET
PLOTTED BY	KerrT				00Z000			OF
DESIGNED BY	DESIGNER				CONTRACT NO.		LOCATION NO.	SHEETS
ENTERED BY	CAD OPERATOR						XL-1234	
CHECKED BY	TEAM LEADER							
PROJ. ENGR.	PROJECT ENGINEER							
REGIONAL ADM.	REGIONAL ADM.	REVISION	DATE	BY				

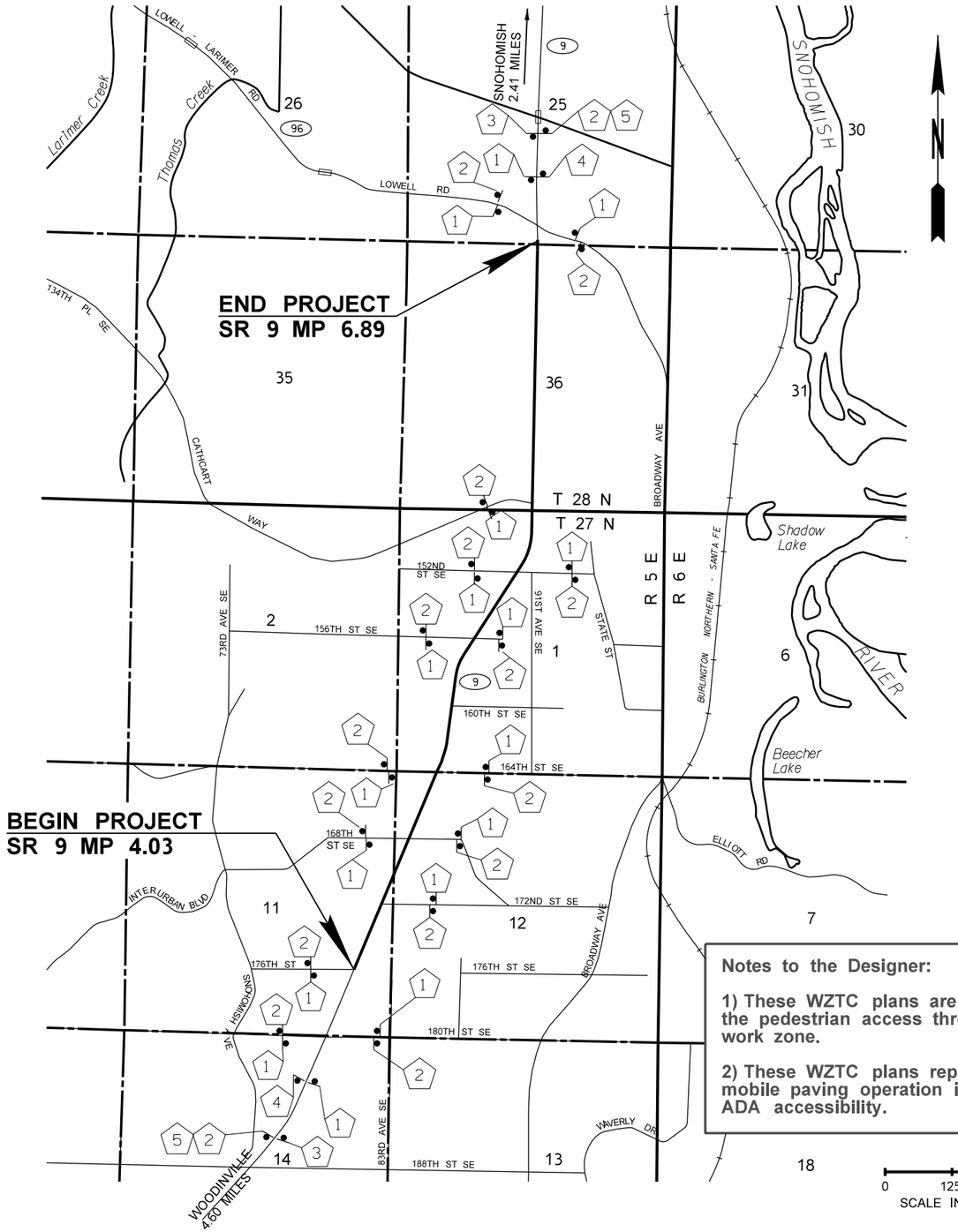
P.E. STAMP BOX — DATE

P.E. STAMP BOX — DATE

Washington State Department of Transportation

EXAMPLE 4-44

SIGN PLANS

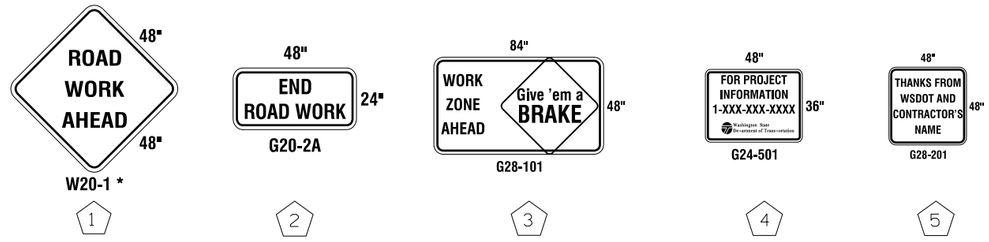


Notes to the Designer:

1) These WZTC plans are emphasizing the pedestrian access through the work zone.

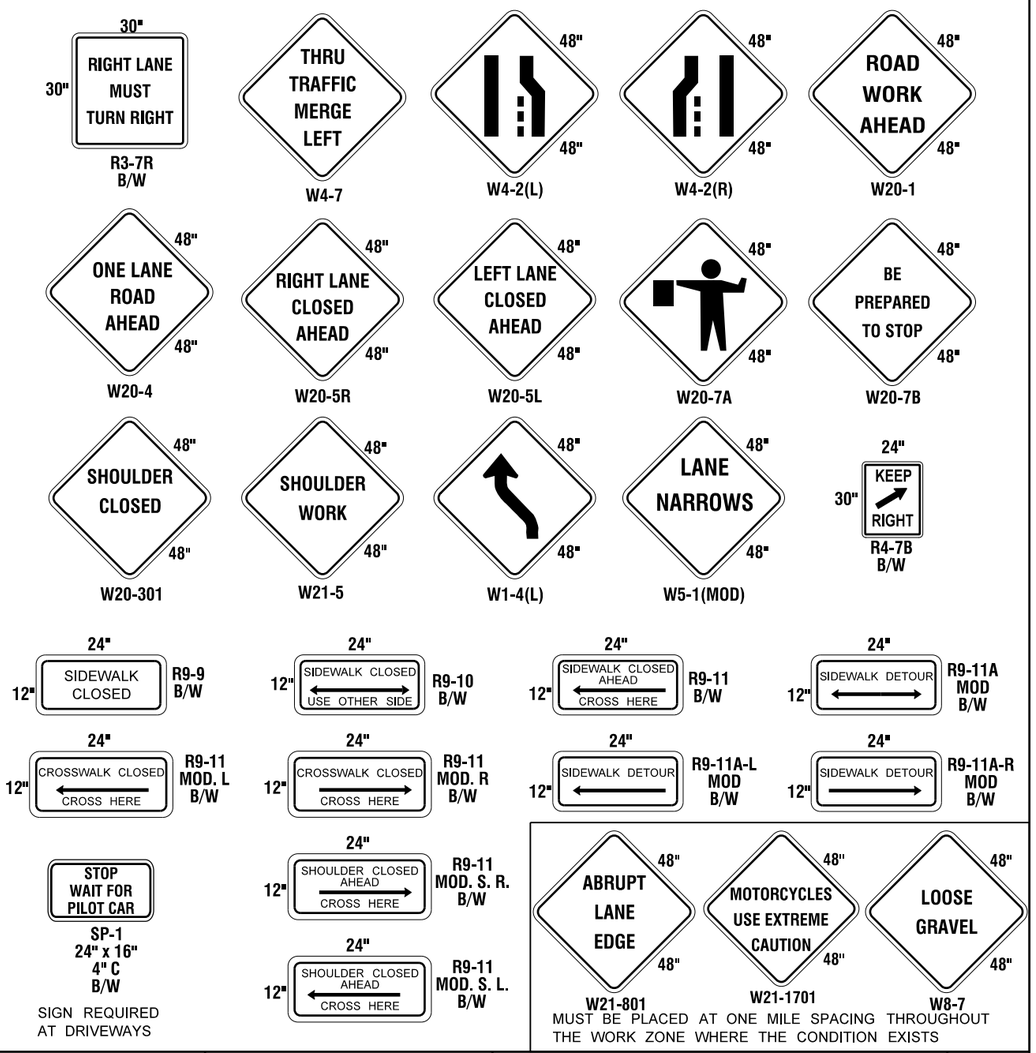
2) These WZTC plans represents a mobile paving operation implementing ADA accessibility.

CLASS A SIGNS



* W20-1 SHALL BE 36" X 36" ON SNOHOMISH COUNTY ROADS

CLASS B SIGNS



MUST BE PLACED AT ONE MILE SPACING THROUGHOUT THE WORK ZONE WHERE THE CONDITION EXISTS

FILE NAME	C:\AAWork\Manuals\PPM\2012\Div 4 Example files\PPM_Div_4_Example_41-54.dgn						
TIME	3:36:59 PM				REGION NO. 10	STATE WASH	FED.AID PROJ.NO.
DATE	9/5/2012						
PLOTTED BY	KerrT						
DESIGNED BY	DESIGNER				JOB NUMBER 00Z000		
ENTERED BY	CAD OPERATOR						
CHECKED BY	TEAM LEAD				CONTRACT NO.		LOCATION NO.
PROJ. ENGR.	PROJECT ENGINEER						
REGIONAL ADM.	REGIONAL ADM.	REVISION	DATE	BY			

P.E. STAMP BOX — DATE

P.E. STAMP BOX — DATE

Washington State Department of Transportation

EXAMPLE 4-45

CONSTRUCTION SIGNING PLAN

Plot 5

PLAN REF NO TCS1

SHEET 61 OF 84 SHEETS

SIGN SPACING = X (FEET) (1)		
RURAL HIGHWAYS	60 / 65 MPH	800'±
RURAL ROADS	45 / 55 MPH	500'±
RURAL ROADS & URBAN ARTERIALS	35 / 40 MPH	350'±
RURAL ROADS, URBAN ARTERIALS RESIDENTIAL & BUSINESS DISTRICTS	25 / 30 MPH	200'± (2)
URBAN STREETS	25 MPH OR LESS	100'± (2)
ALL SIGNS ARE 48" x 48" BLACK ON ORANGE UNLESS OTHERWISE DESIGNATED.		

(1) ALL SIGN SPACING MAY BE ADJUSTED TO ACCOMMODATE INTERCHANGE RAMPS, AT-GRADE INTERSECTIONS, AND DRIVEWAYS.
(2) THIS SIGN SPACING MAY BE REDUCED TO FIT ROADWAY CONDITIONS.

NOTES:

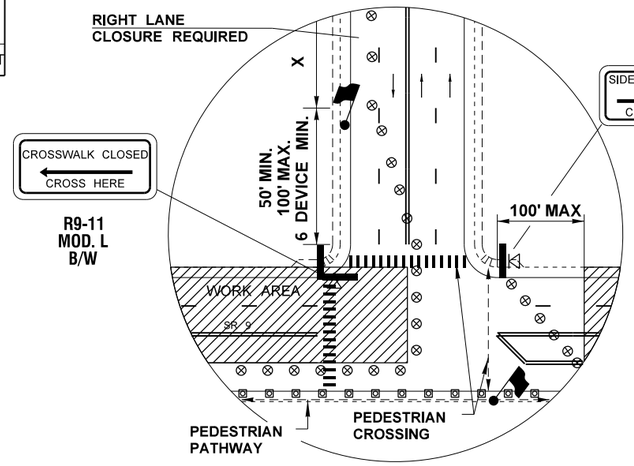
1. FLAGGING STATIONS SHALL BE ILLUMINATED DURING HOURS OF DARKNESS.
2. EXTEND DEVICE TAPER (L/3) ACROSS SHOULDER.
3. WHEN USED THE DOWNSTREAM TAPER DEVICE SPACING SHALL BE 20' O.C.
4. ALL SIGNS ARE CLASS B UNLESS OTHERWISE NOTED.
5. ALL SIGNS SHALL HAVE A BLACK LEGEND ON AN ORANGE BACKGROUND UNLESS OTHERWISE SPECIFIED.
6. MOTORCYCLES USE EXTREME CAUTION SIGNS (W21-1701) SHALL BE INSTALLED WHEN THE FOLLOWING CONDITIONS EXIST:
   GROOVED PAVEMENT
   ABRUPT LANE EDGE
   STEEL PLATES
   LOOSE GRAVEL OR EARTH
   SPECIFIC SIGNS FOR EACH OF THE CONDITIONS NOTED SHALL BE INSTALLED ALONG WITH W21-1701.
7. SEE SPECIAL PROVISIONS FOR ALLOWABLE LENGTH OF CLOSURE.
8. FOR SECTION LESS THAN 2,000 FEET, CONTRACTOR MAY USE FLAGGING OPERATION WITH PRIOR APPROVAL FROM THE ENGINEER.
9. FOR WORK OPERATIONS SEPARATED MORE THAN 1000', ADDITIONAL TMA IS REQUIRED.
10. TRAFFIC SIGNAL SHALL BE ON "FLASHING RED".

BUFFER DATA										
LONGITUDINAL BUFFER SPACE = B										
SPEED (MPH)	25	30	35	40	45	50	55	60	65	70
LENGTH (FEET)	155	200	250	305	360	425	495	570	645	-

PROTECTIVE VEHICLE WITH TMA ROLL AHEAD DISTANCE = R		
TYPICAL PROTECTIVE VEHICLE TYPE WITH TMA	TYPICAL PROTECTIVE VEHICLE (WITH TMA) LOADED WEIGHT (LBS)	STATIONARY OPERATION (FEET)
4 YARD DUMP TRUCK, SERVICE TRUCK, FLAT BED, ETC.	MINIMUM WEIGHT 15,000 LBS. (MAXIMUM WEIGHT SHALL BE IN ACCORDANCE WITH MANUFACTURER RECOMMENDATION)	30 MIN. 100 MAX.
ROLL AHEAD STOPPING DISTANCE ASSUMES DRY PAVEMENT		

MINIMUM TAPER LENGTH = L (FEET)								
LANE WIDTH (FEET)	POSTED SPEED (MPH)							
	25	30	35	40	45	50	55	60
10	105	150	205	270	450	500	550	-
11	115	165	225	294	495	550	605	660
12	125	180	245	320	540	600	660	720

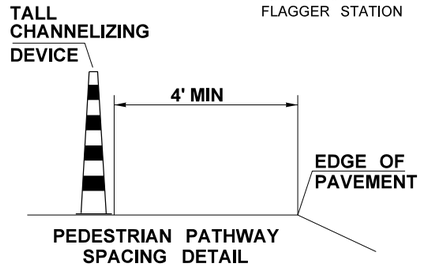
CHANNELIZING DEVICE SPACING		
POSTED SPEED (MPH)	IN TAPER (FEET)	IN TANGENT (FEET)
50 / 65	40	80
35 / 45	30	60
25 / 30	20	40



INTERSECTION ALTERNATE DETAIL

PCMS	
1	2
FLAGGER AHEAD	BE PREPARED TO STOP
1.5 SEC	1.5 SEC

FIELD LOCATE 1 MILE ± IN ADVANCE OF FLAGGER STATION



PEDESTRIAN PATHWAY SPACING DETAIL (TRANSVERSE SPACING)

LANE CLOSURE
WITH PILOT CAR (TYP.)
NOT TO SCALE

CATHCART WAY

LEGEND

- SIGN LOCATION
- FLAGGING STATION
- PEDESTRIAN CHANNELIZING DEVICE
- TRAFFIC SAFETY DRUMS
- TALL CHANNELIZING DEVICES
- PV — PILOT VEHICLE
- TRANSPORTABLE ATTENUATOR
- MOTORIST VEHICLE
- SEQUENTIAL ARROW SIGN
- PCMS — PORTABLE CHANGEABLE MESSAGE SIGN

Notes to the Designer:

1) These WZTC plans are emphasizing the pedestrian access through the work zone.

2) These WZTC plans represents a mobile paving operation implementing ADA accessibility.

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ENTERED BY	CAD OPERATOR						
CHECKED BY	TEAM LEAD						
PROJ. ENGR.	PROJECT ENGINEER						
REGIONAL ADM.	REGIONAL ADM.	REVISION	DATE	BY			

P.E. STAMP BOX — DATE

P.E. STAMP BOX — DATE

Washington State Department of Transportation

Example 4-46

TRAFFIC CONTROL PLAN

Plot 6

PLAN REF NO TC11

SHEET 72 OF 84 SHEETS

SIGN SPACING = X (FEET) (1)		
RURAL HIGHWAYS	60 / 65 MPH	800'±
RURAL ROADS	45 / 55 MPH	500'±
RURAL ROADS & URBAN ARTERIALS	35 / 40 MPH	350'±
RURAL ROADS, URBAN ARTERIALS RESIDENTIAL & BUSINESS DISTRICTS	25 / 30 MPH	200'± (2)
URBAN STREETS	25 MPH OR LESS	100'± (2)
ALL SIGNS ARE 48" x 48" BLACK ON ORANGE UNLESS OTHERWISE DESIGNATED.		

(1) ALL SIGN SPACING MAY BE ADJUSTED TO ACCOMMODATE INTERCHANGE RAMPS, AT-GRADE INTERSECTIONS, AND DRIVEWAYS.

(2) THIS SIGN SPACING MAY BE REDUCED TO FIT ROADWAY CONDITIONS.

NOTES:

1. FLAGGING STATIONS SHALL BE ILLUMINATED DURING HOURS OF DARKNESS.
2. EXTEND DEVICE TAPER (L/3) ACROSS SHOULDER.
3. WHEN USED THE DOWNSTREAM TAPER DEVICE SPACING SHALL BE 20' O.C.
4. ALL SIGNS ARE CLASS B UNLESS OTHERWISE NOTED.
5. ALL SIGNS SHALL HAVE A BLACK LEGEND ON AN ORANGE BACKGROUND UNLESS OTHERWISE SPECIFIED.
6. MOTORCYCLES USE EXTREME CAUTION SIGNS (W21-1701) SHALL BE INSTALLED WHEN THE FOLLOWING CONDITIONS EXIST:
   - GROOVED PAVEMENT
   - ABRUPT LANE EDGE
   - STEEL PLATES
   - LOOSE GRAVEL OR EARTH

   SPECIFIC SIGNS FOR EACH OF THE CONDITIONS NOTED SHALL BE INSTALLED ALONG WITH W21-1701.
7. SEE SPECIAL PROVISIONS FOR ALLOWABLE LENGTH OF CLOSURE.
8. FOR SECTION LESS THAN 2,000 FEET, CONTRACTOR MAY USE FLAGGING OPERATION WITH PRIOR APPROVAL FROM THE ENGINEER.
9. FOR WORK OPERATIONS SEPARATED MORE THAN 1000', ADDITIONAL TMA IS REQUIRED.
10. TRAFFIC SIGNAL SHALL BE ON "FLASHING RED".

BUFFER DATA										
LONGITUDINAL BUFFER SPACE = B										
SPEED (MPH)	25	30	35	40	45	50	55	60	65	70
LENGTH (FEET)	155	200	250	305	360	425	495	570	645	-

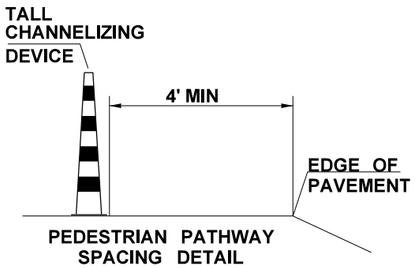
PROTECTIVE VEHICLE WITH TMA ROLL AHEAD DISTANCE = R		
TYPICAL PROTECTIVE VEHICLE TYPE WITH TMA	TYPICAL PROTECTIVE VEHICLE (WITH TMA) LOADED WEIGHT (LBS)	STATIONARY OPERATION (FEET)
4 YARD DUMP TRUCK, SERVICE TRUCK, FLAT BED, ETC.	MINIMUM WEIGHT 15,000 LBS. (MAXIMUM WEIGHT SHALL BE IN ACCORDANCE WITH MANUFACTURER RECOMMENDATION)	30 MIN. 100 MAX.
ROLL AHEAD STOPPING DISTANCE ASSUMES DRY PAVEMENT		

MINIMUM TAPER LENGTH = L (FEET)								
LANE WIDTH (FEET)	POSTED SPEED (MPH)							
	25	30	35	40	45	50	55	60
10	105	150	205	270	450	500	550	-
11	115	165	225	294	495	550	605	660
12	125	180	245	320	540	600	660	720

CHANNELIZING DEVICE SPACING		
POSTED SPEED (MPH)	IN TAPER (FEET)	IN TANGENT (FEET)
50 / 65	40	80
35 / 45	30	60
25 / 30	20	40

PCMS	
1	2
FLAGGER AHEAD	BE PREPARED TO STOP
1.5 SEC	1.5 SEC

FIELD LOCATE 1 MILE ± IN ADVANCE OF FLAGGER STATION



PEDESTRIAN PATHWAY SPACING DETAIL (TRANSVERSE SPACING)

Notes to the Designer:

1) These WZTC plans are emphasizing the pedestrian access through the work zone.

2) These WZTC plans represents a mobile paving operation implementing ADA accessibility.

LEGEND

- SIGN LOCATION
- FLAGGING STATION
- PEDESTRIAN CHANNELIZING DEVICE
- TRAFFIC SAFETY DRUMS
- TALL CHANNELIZING DEVICES
- PV — PILOT VEHICLE
- TRANSPORTABLE ATTENUATOR
- MOTORIST VEHICLE
- SEQUENTIAL ARROW SIGN
- PCMS — PORTABLE CHANGEABLE MESSAGE SIGN

LANE CLOSURE WITH PILOT CAR (TYP.)

NOT TO SCALE

CATHCART WAY

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ENTERED BY	CAD OPERATOR						
CHECKED BY	TEAM LEAD						
PROJ. ENGR.	PROJECT ENGINEER						
REGIONAL ADM.	REGIONAL ADM.	REVISION	DATE	BY			

P.E. STAMP BOX — DATE

P.E. STAMP BOX — DATE

Washington State Department of Transportation

EXAMPLE 4-47

TRAFFIC CONTROL PLAN

Plot 7

PLAN REF NO TC12

SHEET 73 OF 84 SHEETS

SIGN SPACING = X (FEET) (1)		
RURAL HIGHWAYS	60 / 65 MPH	800'±
RURAL ROADS	45 / 55 MPH	500'±
RURAL ROADS & URBAN ARTERIALS	35 / 40 MPH	350'±
RURAL ROADS, URBAN ARTERIALS RESIDENTIAL & BUSINESS DISTRICTS	25 / 30 MPH	200'± (2)
URBAN STREETS	25 MPH OR LESS	100'± (2)
ALL SIGNS ARE 48" x 48" BLACK ON ORANGE UNLESS OTHERWISE DESIGNATED.		

(1) ALL SIGN SPACING MAY BE ADJUSTED TO ACCOMMODATE INTERCHANGE RAMPS, AT-GRADE INTERSECTIONS, AND DRIVEWAYS.

(2) THIS SIGN SPACING MAY BE REDUCED TO FIT ROADWAY CONDITIONS.

NOTES:

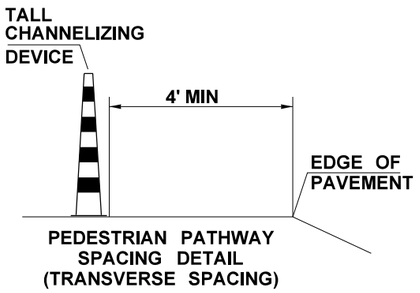
1. FLAGGING STATIONS SHALL BE ILLUMINATED DURING HOURS OF DARKNESS.
2. EXTEND DEVICE TAPER (L/3) ACROSS SHOULDER.
3. WHEN USED THE DOWNSTREAM TAPER DEVICE SPACING SHALL BE 20' O.C.
4. ALL SIGNS ARE CLASS B UNLESS OTHERWISE NOTED.
5. ALL SIGNS SHALL HAVE A BLACK LEGEND ON AN ORANGE BACKGROUND UNLESS OTHERWISE SPECIFIED.
6. MOTORCYCLES USE EXTREME CAUTION SIGNS (W21-1701) SHALL BE INSTALLED WHEN THE FOLLOWING CONDITIONS EXIST:
   - GROOVED PAVEMENT
   - ABRUPT LANE EDGE
   - STEEL PLATES
   - LOOSE GRAVEL OR EARTH

   SPECIFIC SIGNS FOR EACH OF THE CONDITIONS NOTED SHALL BE INSTALLED ALONG WITH W21-1701.
7. SEE SPECIAL PROVISIONS FOR ALLOWABLE LENGTH OF CLOSURE.
8. FOR SECTION LESS THAN 2,000 FEET, CONTRACTOR MAY USE FLAGGING OPERATION WITH PRIOR APPROVAL FROM THE ENGINEER.
9. FOR WORK OPERATIONS SEPARATED MORE THAN 1000', ADDITIONAL TMA IS REQUIRED.
10. TRAFFIC SIGNAL SHALL BE ON "FLASHING RED".

BUFFER DATA										
LONGITUDINAL BUFFER SPACE = B										
SPEED (MPH)	25	30	35	40	45	50	55	60	65	70
LENGTH (FEET)	155	200	250	305	360	425	495	570	645	-
PROTECTIVE VEHICLE WITH TMA ROLL AHEAD DISTANCE = R										
TYPICAL PROTECTIVE VEHICLE TYPE WITH TMA	TYPICAL PROTECTIVE VEHICLE (WITH TMA) LOADED WEIGHT (LBS)									STATIONARY OPERATION (FEET)
4 YARD DUMP TRUCK, SERVICE TRUCK, FLAT BED, ETC.	MINIMUM WEIGHT 15,000 LBS. (MAXIMUM WEIGHT SHALL BE IN ACCORDANCE WITH MANUFACTURER RECOMMENDATION)									30 MIN. 100 MAX.
ROLL AHEAD STOPPING DISTANCE ASSUMES DRY PAVEMENT										

MINIMUM TAPER LENGTH = L (FEET)								
LANE WIDTH (FEET)	POSTED SPEED (MPH)							
	25	30	35	40	45	50	55	60
10	105	150	205	270	450	500	550	-
11	115	165	225	294	495	550	605	660
12	125	180	245	320	540	600	660	720

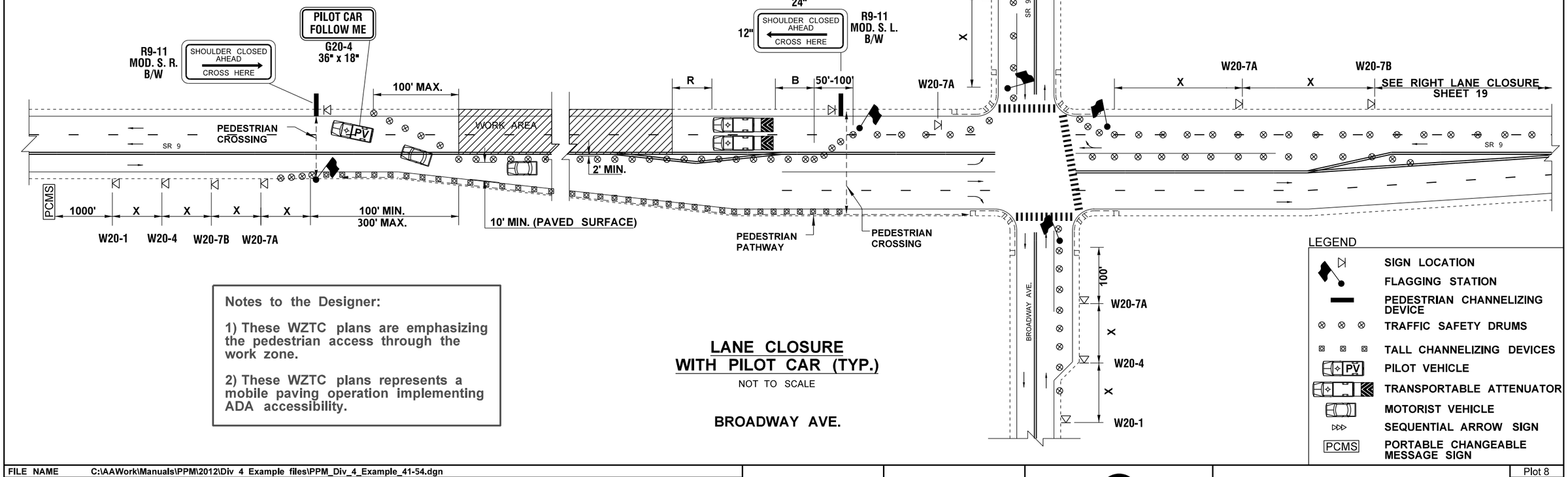
CHANNELIZING DEVICE SPACING		
POSTED SPEED (MPH)	IN TAPER (FEET)	IN TANGENT (FEET)
50 / 65	40	80
35 / 45	30	60
25 / 30	20	40



PEDESTRIAN PATHWAY SPACING DETAIL (TRANSVERSE SPACING)

PCMS	
1	2
FLAGGER AHEAD	BE PREPARED TO STOP
1.5 SEC	1.5 SEC

FIELD LOCATE 1 MILE ± IN ADVANCE OF FLAGGER STATION



LANE CLOSURE WITH PILOT CAR (TYP.)

NOT TO SCALE

BROADWAY AVE.

Notes to the Designer:

1) These WZTC plans are emphasizing the pedestrian access through the work zone.

2) These WZTC plans represents a mobile paving operation implementing ADA accessibility.

LEGEND

- SIGN LOCATION
- FLAGGING STATION
- PEDESTRIAN CHANNELIZING DEVICE
- TRAFFIC SAFETY DRUMS
- TALL CHANNELIZING DEVICES
- PV — PILOT VEHICLE
- TRANSPORTABLE ATTENUATOR
- MOTORIST VEHICLE
- SEQUENTIAL ARROW SIGN
- PCMS — PORTABLE CHANGEABLE MESSAGE SIGN

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ENTERED BY	CAD OPERATOR						
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PROJ. ENGR.	PROJECT ENGINEER						
REGIONAL ADM.	REGIONAL ADM.	REVISION	DATE	BY			

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Washington State Department of Transportation

EXAMPLE 4-48

TRAFFIC CONTROL PLAN

Plot 8

PLAN REF NO TC15

SHEET 76 OF 84 SHEETS

SIGN SPACING = X (FEET) (1)		
RURAL HIGHWAYS	60 / 65 MPH	800'±
RURAL ROADS	45 / 55 MPH	500'±
RURAL ROADS & URBAN ARTERIALS	35 / 40 MPH	350'±
RURAL ROADS, URBAN ARTERIALS RESIDENTIAL & BUSINESS DISTRICTS	25 / 30 MPH	200'± (2)
URBAN STREETS	25 MPH OR LESS	100'± (2)
ALL SIGNS ARE 48" x 48" BLACK ON ORANGE UNLESS OTHERWISE DESIGNATED.		

(1) ALL SIGN SPACING MAY BE ADJUSTED TO ACCOMMODATE INTERCHANGE RAMPS, AT-GRADE INTERSECTIONS, AND DRIVEWAYS.

(2) THIS SIGN SPACING MAY BE REDUCED TO FIT ROADWAY CONDITIONS.

NOTES:

1. FLAGGING STATIONS SHALL BE ILLUMINATED DURING HOURS OF DARKNESS.
2. EXTEND DEVICE TAPER (L/3) ACROSS SHOULDER.
3. WHEN USED THE DOWNSTREAM TAPER DEVICE SPACING SHALL BE 20' O.C.
4. ALL SIGNS ARE CLASS B UNLESS OTHERWISE NOTED.
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   - GROOVED PAVEMENT
   - ABRUPT LANE EDGE
   - STEEL PLATES
   - LOOSE GRAVEL OR EARTH

   SPECIFIC SIGNS FOR EACH OF THE CONDITIONS NOTED SHALL BE INSTALLED ALONG WITH W21-1701.
7. SEE SPECIAL PROVISIONS FOR ALLOWABLE LENGTH OF CLOSURE.
8. FOR SECTION LESS THAN 2,000 FEET, CONTRACTOR MAY USE FLAGGING OPERATION WITH PRIOR APPROVAL FROM THE ENGINEER.
9. FOR WORK OPERATIONS SEPARATED MORE THAN 1000', ADDITIONAL TMA IS REQUIRED.
10. TRAFFIC SIGNAL SHALL BE ON "FLASHING RED".

BUFFER DATA										
LONGITUDINAL BUFFER SPACE = B										
SPEED (MPH)	25	30	35	40	45	50	55	60	65	70
LENGTH (FEET)	155	200	250	305	360	425	495	570	645	-

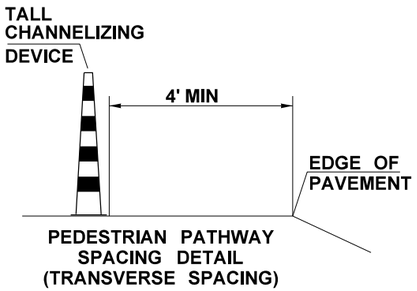
PROTECTIVE VEHICLE WITH TMA ROLL AHEAD DISTANCE = R		
TYPICAL PROTECTIVE VEHICLE TYPE WITH TMA	TYPICAL PROTECTIVE VEHICLE (WITH TMA) LOADED WEIGHT (LBS)	STATIONARY OPERATION (FEET)
4 YARD DUMP TRUCK, SERVICE TRUCK, FLAT BED, ETC.	MINIMUM WEIGHT 15,000 LBS. (MAXIMUM WEIGHT SHALL BE IN ACCORDANCE WITH MANUFACTURER RECOMMENDATION)	30 MIN. 100 MAX.
ROLL AHEAD STOPPING DISTANCE ASSUMES DRY PAVEMENT		

MINIMUM TAPER LENGTH = L (FEET)								
LANE WIDTH (FEET)	POSTED SPEED (MPH)							
	25	30	35	40	45	50	55	60
10	105	150	205	270	450	500	550	-
11	115	165	225	294	495	550	605	660
12	125	180	245	320	540	600	660	720

CHANNELIZING DEVICE SPACING		
POSTED SPEED (MPH)	IN TAPER (FEET)	IN TANGENT (FEET)
50 / 65	40	80
35 / 45	30	60
25 / 30	20	40

PCMS	
1	2
FLAGGER AHEAD	BE PREPARED TO STOP
1.5 SEC	1.5 SEC

FIELD LOCATE 1 MILE ± IN ADVANCE OF FLAGGER STATION



PEDESTRIAN PATHWAY SPACING DETAIL (TRANSVERSE SPACING)

LANE CLOSURE WITH PILOT CAR (TYP.)

NOT TO SCALE

BROADWAY AVE.

LEGEND

- SIGN LOCATION
- FLAGGING STATION
- PEDESTRIAN CHANNELIZING DEVICE
- TRAFFIC SAFETY DRUMS
- TALL CHANNELIZING DEVICES
- PILOT VEHICLE
- TRANSPORTABLE ATTENUATOR
- MOTORIST VEHICLE
- SEQUENTIAL ARROW SIGN
- PCMS — PORTABLE CHANGEABLE MESSAGE SIGN

Notes to the Designer:

1) These WZTC plans are emphasizing the pedestrian access through the work zone.

2) These WZTC plans represents a mobile paving operation implementing ADA accessibility.

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ENTERED BY	CAD OPERATOR						
CHECKED BY	TEAM LEAD						
PROJ. ENGR.	PROJECT ENGINEER						
REGIONAL ADM.	REGIONAL ADM.	REVISION	DATE	BY			

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P.E. STAMP BOX — DATE

Washington State Department of Transportation

EXAMPLE 4-49

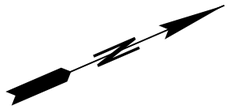
TRAFFIC CONTROL PLAN

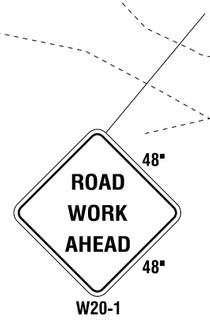
Plot 9

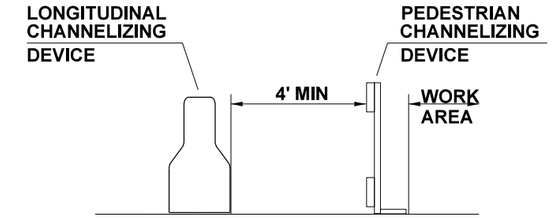
PLAN REF NO TC16

SHEET 77 OF 84 SHEETS

T. 27N. R. 5E. W.M.





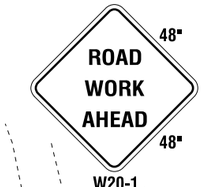


PEDESTRIAN PATHWAY SPACING DETAIL (TRANSVERSE SPACING)

Notes to the Designer:

1) These WZTC plans are emphasizing the pedestrian access through the work zone.

2) These WZTC plans represents a mobile paving operation implementing ADA accessibility.

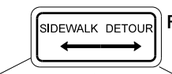


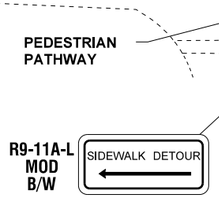
164TH ST SE

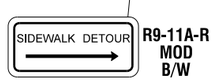
SR9

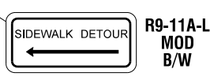
420

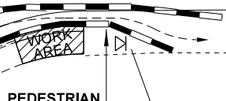
10











TEMPORARY PEDESTRIAN RAMP
SEE TCD1 FOR DETAIL

LEGEND

- SIGN LOCATION
- FLAGGING STATION
- LONGITUDINAL OR PEDESTRIAN CHANNELIZING DEVICE
- TRAFFIC SAFETY DRUMS
- TALL CHANNELIZING DEVICES
- PV — PILOT VEHICLE
- TRANSPORTABLE ATTENUATOR
- MOTORIST VEHICLE
- SEQUENTIAL ARROW SIGN
- PCMS — PORTABLE CHANGEABLE MESSAGE SIGN

NOTES:

1. ALL SIGNS ARE CLASS B UNLESS OTHERWISE NOTED.
2. ALL SIGNS SHALL HAVE A BLACK LEGEND ON AN ORANGE BACKGROUND UNLESS OTHERWISE SPECIFIED.
3. ONLY ONE SIDEWALK DETOUR ALLOWED AT TIME UNLESS APPROVED BY THE ENGINEER.
4. SEE SHEET TCD1 FOR SIDEWALK RAMP DETAIL.
5. SIGN SEQUENCE SHOWN NOT TO SCALE.
6. NO FLAGGERS OR SPOTTERS THIS SHEET.

PEDESTRIAN DETOUR

164TH ST SE
SIDEWALKS-EAST SIDE

0 20 40
SCALE IN FEET

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DATE	9/5/2012				JOB NUMBER		
PLOTTED BY	KerrT				00Z000		
DESIGNED BY	DESIGNER				CONTRACT NO.		LOCATION NO.
ENTERED BY	CAD OPERATOR						
CHECKED BY	TEAM LEAD						
PROJ. ENGR.	PROJECT ENGINEER						
REGIONAL ADM.	REGIONAL ADM.	REVISION	DATE	BY			

P.E. STAMP BOX — DATE

P.E. STAMP BOX — DATE

Washington State Department of Transportation

EXAMPLE 4-50

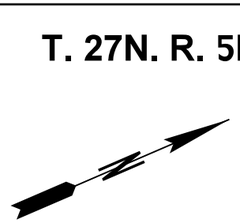
TRAFFIC CONTROL PLAN

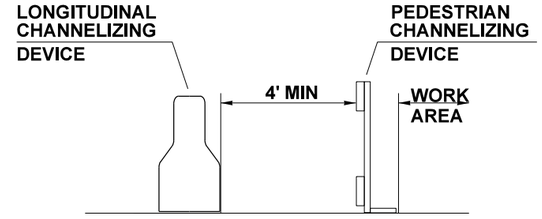
Plot 10

PLAN REF NO
TC17

SHEET 78 OF 84 SHEETS

T. 27N. R. 5E. W.M.





PEDESTRIAN PATHWAY SPACING DETAIL (TRANSVERSE SPACING)

ROAD WORK AHEAD 48" 48" W20-1

SIDEWALK DETOUR R9-11A-L MOD B/W

SIDEWALK DETOUR R9-11A MOD B/W

SIDEWALK DETOUR R9-11A-R MOD B/W

164TH ST SE

SIDEWALK DETOUR R9-11A-R MOD B/W

SIDEWALK DETOUR R9-11A MOD B/W

SIDEWALK DETOUR R9-11A-L MOD B/W

PEDESTRIAN PATHWAY

WORK AREA

WORK AREA

PEDESTRIAN PATHWAY

SR9

420

10

ROAD WORK AHEAD 48" 48" W20-1

164TH ST SE

ROAD WORK AHEAD 48" 48" W20-1

0 20 40
SCALE IN FEET

Notes to the Designer:

1) These WZTC plans are emphasizing the pedestrian access through the work zone.

2) These WZTC plans represents a mobile paving operation implementing ADA accessibility.

PEDESTRIAN DETOUR

164TH ST SE
SIDEWALKS-WEST SIDE

NOTES:

1. ALL SIGNS ARE CLASS B UNLESS OTHERWISE NOTED.
2. ALL SIGNS SHALL HAVE A BLACK LEGEND ON AN ORANGE BACKGROUND UNLESS OTHERWISE SPECIFIED.
3. ONLY ONE SIDEWALK DETOUR ALLOWED AT TIME UNLESS APPROVED BY THE ENGINEER.
4. SEE SHEET TCD1 FOR SIDEWALK RAMP DETAIL.
5. SIGN SEQUENCE SHOWN NOT TO SCALE.
6. NO FLAGGERS OR SPOTTERS THIS SHEET.

LEGEND

- SIGN LOCATION
- FLAGGING STATION
- LONGITUDINAL OR PEDESTRIAN CHANNELIZING DEVICE
- TRAFFIC SAFETY DRUMS
- TALL CHANNELIZING DEVICES
- PV — PILOT VEHICLE
- TRANSPORTABLE ATTENUATOR
- MOTORIST VEHICLE
- SEQUENTIAL ARROW SIGN
- PCMS — PORTABLE CHANGEABLE MESSAGE SIGN

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TIME	3:38:38 PM				10	WASH	
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PLOTTED BY	KerrT				00Z000		
DESIGNED BY	DESIGNER				CONTRACT NO.		LOCATION NO.
ENTERED BY	CAD OPERATOR						
CHECKED BY	TEAM LEAD						
PROJ. ENGR.	PROJECT ENGINEER						
REGIONAL ADM.	REGIONAL ADM.	REVISION	DATE	BY			

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P.E. STAMP BOX — DATE

Washington State Department of Transportation

EXAMPLE 4-51

TRAFFIC CONTROL PLAN

Plot 11

PLAN REF NO **TC18**

SHEET **79** OF **84** SHEETS

SIGN SPACING = X (FEET) (1)		
RURAL HIGHWAYS	60 / 65 MPH	800'±
RURAL ROADS	45 / 55 MPH	500'±
RURAL ROADS & URBAN ARTERIALS	35 / 40 MPH	350'±
RURAL ROADS, URBAN ARTERIALS RESIDENTIAL & BUSINESS DISTRICTS	25 / 30 MPH	200'± (2)
URBAN STREETS	25 MPH OR LESS	100'± (2)
ALL SIGNS ARE 48" x 48" BLACK ON ORANGE UNLESS OTHERWISE DESIGNATED.		

(1) ALL SIGN SPACING MAY BE ADJUSTED TO ACCOMMODATE INTERCHANGE RAMPS, AT-GRADE INTERSECTIONS, AND DRIVEWAYS.

(2) THIS SIGN SPACING MAY BE REDUCED TO FIT ROADWAY CONDITIONS.

NOTES:

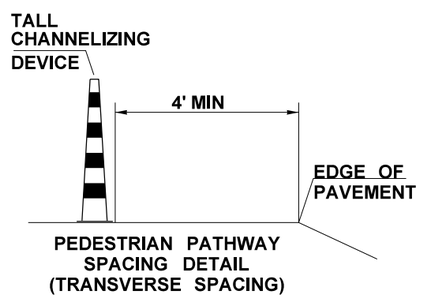
1. FLAGGING STATIONS SHALL BE ILLUMINATED DURING HOURS OF DARKNESS.
2. EXTEND DEVICE TAPER (L/3) ACROSS SHOULDER.
3. WHEN USED THE DOWNSTREAM TAPER DEVICE SPACING SHALL BE 20' O.C.
4. ALL SIGNS ARE CLASS B UNLESS OTHERWISE NOTED.
5. ALL SIGNS SHALL HAVE A BLACK LEGEND ON AN ORANGE BACKGROUND UNLESS OTHERWISE SPECIFIED.
6. MOTORCYCLES USE EXTREME CAUTION SIGNS (W21-1701) SHALL BE INSTALLED WHEN THE FOLLOWING CONDITIONS EXIST:
   GROOVED PAVEMENT
   ABRUPT LANE EDGE
   STEEL PLATES
   LOOSE GRAVEL OR EARTH
   SPECIFIC SIGNS FOR EACH OF THE CONDITIONS NOTED SHALL BE INSTALLED ALONG WITH W21-1701.
7. SEE SPECIAL PROVISIONS FOR ALLOWABLE LENGTH OF CLOSURE.
8. FOR SECTION LESS THAN 2,000 FEET, CONTRACTOR MAY USE FLAGGING OPERATION WITH PRIOR APPROVAL FROM THE ENGINEER.
9. FOR WORK OPERATIONS SEPARATED MORE THAN 1000', ADDITIONAL TMA IS REQUIRED.

BUFFER DATA										
LONGITUDINAL BUFFER SPACE = B										
SPEED (MPH)	25	30	35	40	45	50	55	60	65	70
LENGTH (FEET)	155	200	250	305	360	425	495	570	645	-
PROTECTIVE VEHICLE WITH TMA ROLL AHEAD DISTANCE = R										

TYPICAL PROTECTIVE VEHICLE TYPE WITH TMA	TYPICAL PROTECTIVE VEHICLE (WITH TMA) LOADED WEIGHT (LBS)	STATIONARY OPERATION (FEET)
4 YARD DUMP TRUCK, SERVICE TRUCK, FLAT BED, ETC.	MINIMUM WEIGHT 15,000 LBS. (MAXIMUM WEIGHT SHALL BE IN ACCORDANCE WITH MANUFACTURER RECOMMENDATION)	30 MIN. 100 MAX.
ROLL AHEAD STOPPING DISTANCE ASSUMES DRY PAVEMENT		

MINIMUM TAPER LENGTH = L (FEET)								
LANE WIDTH (FEET)	POSTED SPEED (MPH)							
	25	30	35	40	45	50	55	60
10	105	150	205	270	450	500	550	-
11	115	165	225	294	495	550	605	660
12	125	180	245	320	540	600	660	720

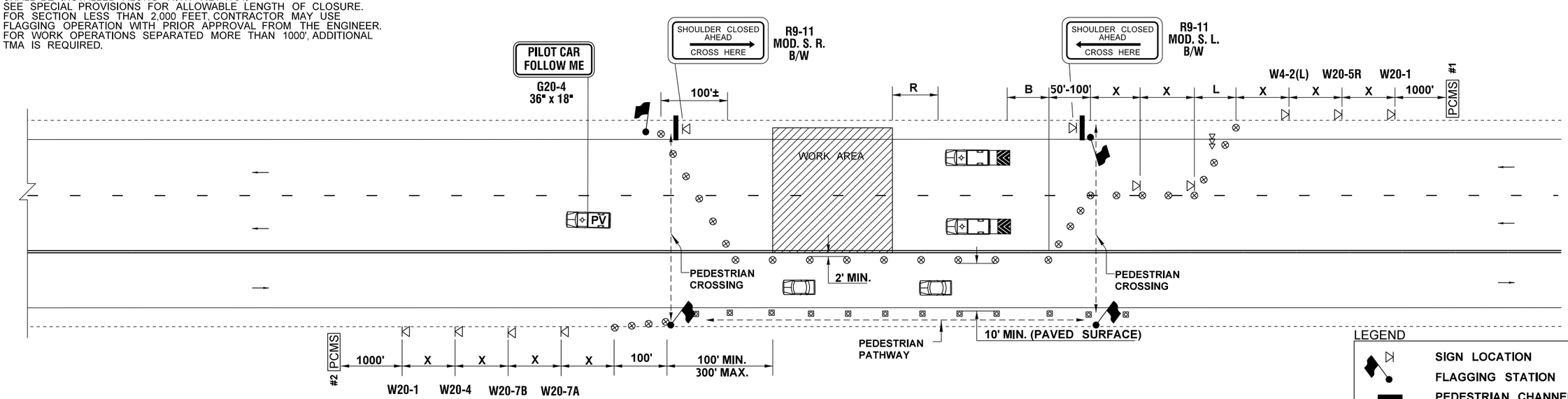
CHANNELIZING DEVICE SPACING		
POSTED SPEED (MPH)	IN TAPER (FEET)	IN TANGENT (FEET)
50 / 65	40	80
35 / 45	30	60
25 / 30	20	40



PEDESTRIAN PATHWAY SPACING DETAIL (TRANSVERSE SPACING)

PCMS	
1	2
FLAGGER AHEAD	BE PREPARED TO STOP
1.5 SEC	1.5 SEC

FIELD LOCATE 1 MILE ± IN ADVANCE OF FLAGGER STATION



LEGEND

- SIGN LOCATION
- FLAGGING STATION
- PEDESTRIAN CHANNELIZING DEVICE
- TRAFFIC SAFETY DRUMS
- TALL CHANNELIZING DEVICES
- PV — PILOT VEHICLE
- TRANSPORTABLE ATTENUATOR
- MOTORIST VEHICLE
- SEQUENTIAL ARROW SIGN
- PCMS — PORTABLE CHANGEABLE MESSAGE SIGN

Notes to the Designer:

1) These WZTC plans are emphasizing the pedestrian access through the work zone.

2) These WZTC plans represents a mobile paving operation implementing ADA accessibility.

LANE CLOSURE WITH PILOT CAR (TYP.)

NOT TO SCALE

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DESIGNED BY	DESIGNER				CONTRACT NO.		LOCATION NO.	
ENTERED BY	CAD OPERATOR							
CHECKED BY	TEAM LEAD							
PROJ. ENGR.	PROJECT ENGINEER							
REGIONAL ADM.	REGIONAL ADM.	REVISION	DATE	BY				

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Washington State Department of Transportation

EXAMPLE 4-52

TRAFFIC CONTROL PLAN

Plot 12

PLAN REF NO TC19

SHEET 80 OF 84 SHEETS

SIGN SPACING = X (FEET) (1)		
RURAL HIGHWAYS	60 / 65 MPH	800'±
RURAL ROADS	45 / 55 MPH	500'±
RURAL ROADS & URBAN ARTERIALS	35 / 40 MPH	350'±
RURAL ROADS, URBAN ARTERIALS RESIDENTIAL & BUSINESS DISTRICTS	25 / 30 MPH	200'± (2)
URBAN STREETS	25 MPH OR LESS	100'± (2)
ALL SIGNS ARE 48" x 48" BLACK ON ORANGE UNLESS OTHERWISE DESIGNATED.		

(1) ALL SIGN SPACING MAY BE ADJUSTED TO ACCOMMODATE INTERCHANGE RAMPS, AT-GRADE INTERSECTIONS, AND DRIVEWAYS.

(2) THIS SIGN SPACING MAY BE REDUCED TO FIT ROADWAY CONDITIONS.

NOTES:

1. FLAGGING STATIONS SHALL BE ILLUMINATED DURING HOURS OF DARKNESS.
2. EXTEND DEVICE TAPER (L/3) ACROSS SHOULDER.
3. WHEN USED THE DOWNSTREAM TAPER DEVICE SPACING SHALL BE 20' O.C.
4. ALL SIGNS ARE CLASS B UNLESS OTHERWISE NOTED.
5. ALL SIGNS SHALL HAVE A BLACK LEGEND ON AN ORANGE BACKGROUND UNLESS OTHERWISE SPECIFIED.
6. MOTORCYCLES USE EXTREME CAUTION SIGNS (W21-1701) SHALL BE INSTALLED WHEN THE FOLLOWING CONDITIONS EXIST:
   - GROOVED PAVEMENT
   - ABRUPT LANE EDGE
   - STEEL PLATES
   - LOOSE GRAVEL OR EARTH

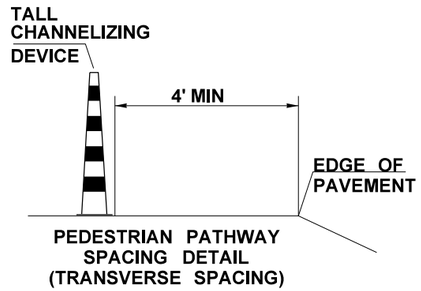
   SPECIFIC SIGNS FOR EACH OF THE CONDITIONS NOTED SHALL BE INSTALLED ALONG WITH W21-1701.
7. SEE SPECIAL PROVISIONS FOR ALLOWABLE LENGTH OF CLOSURE.
8. FOR SECTION LESS THAN 2,000 FEET, CONTRACTOR MAY USE FLAGGING OPERATION WITH PRIOR APPROVAL FROM THE ENGINEER.
9. FOR WORK OPERATIONS SEPARATED MORE THAN 1000', ADDITIONAL TMA IS REQUIRED.

BUFFER DATA										
LONGITUDINAL BUFFER SPACE = B										
SPEED (MPH)	25	30	35	40	45	50	55	60	65	70
LENGTH (FEET)	155	200	250	305	360	425	495	570	645	-

PROTECTIVE VEHICLE WITH TMA ROLL AHEAD DISTANCE = R		
TYPICAL PROTECTIVE VEHICLE TYPE WITH TMA	TYPICAL PROTECTIVE VEHICLE (WITH TMA) LOADED WEIGHT (LBS)	STATIONARY OPERATION (FEET)
4 YARD DUMP TRUCK, SERVICE TRUCK, FLAT BED, ETC.	MINIMUM WEIGHT 15,000 LBS. (MAXIMUM WEIGHT SHALL BE IN ACCORDANCE WITH MANUFACTURER RECOMMENDATION)	30 MIN. 100 MAX.
ROLL AHEAD STOPPING DISTANCE ASSUMES DRY PAVEMENT		

MINIMUM TAPER LENGTH = L (FEET)								
LANE WIDTH (FEET)	POSTED SPEED (MPH)							
	25	30	35	40	45	50	55	60
10	105	150	205	270	450	500	550	-
11	115	165	225	294	495	550	605	660
12	125	180	245	320	540	600	660	720

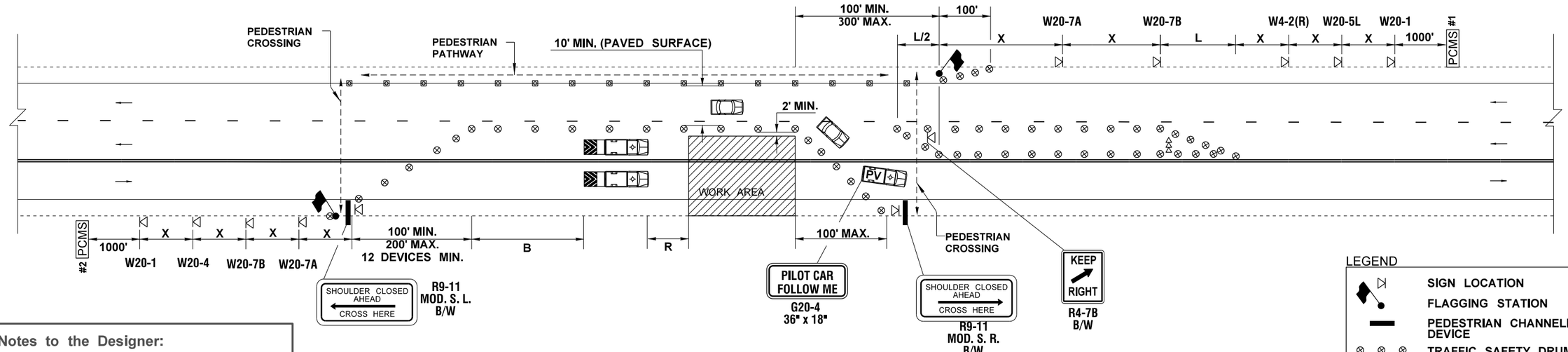
CHANNELIZING DEVICE SPACING		
POSTED SPEED (MPH)	IN TAPER (FEET)	IN TANGENT (FEET)
50 / 65	40	80
35 / 45	30	60
25 / 30	20	40



PEDESTRIAN PATHWAY SPACING DETAIL (TRANSVERSE SPACING)

PCMS	
1	2
ROAD WORK AHEAD	LEFT LANE CLOSED
1.5 SEC	1.5 SEC

FIELD LOCATE 1 MILE ± IN ADVANCE OF FLAGGER STATION



LEGEND

- SIGN LOCATION
- FLAGGING STATION
- PEDESTRIAN CHANNELIZING DEVICE
- TRAFFIC SAFETY DRUMS
- TALL CHANNELIZING DEVICES
- PILOT VEHICLE
- TRANSPORTABLE ATTENUATOR
- MOTORIST VEHICLE
- SEQUENTIAL ARROW SIGN
- PCMS — PORTABLE CHANGEABLE MESSAGE SIGN

Notes to the Designer:

1) These WZTC plans are emphasizing the pedestrian access through the work zone.

2) These WZTC plans represents a mobile paving operation implementing ADA accessibility.

LANE CLOSURE WITH PILOT CAR (TYP.)

NOT TO SCALE

FILE NAME	C:\AAWork\Manuals\PPM\2012\Div 4 Example files\PPM_Div_4_Example_41-54.dgn				REGION NO.	STATE	FED.AID PROJ.NO.
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PLOTTED BY	KerrT				00Z000		
DESIGNED BY	DESIGNER				CONTRACT NO.		LOCATION NO.
ENTERED BY	CAD OPERATOR						
CHECKED BY	TEAM LEAD						
PROJ. ENGR.	PROJECT ENGINEER						
REGIONAL ADM.	REGIONAL ADM.	REVISION	DATE	BY			

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Washington State Department of Transportation

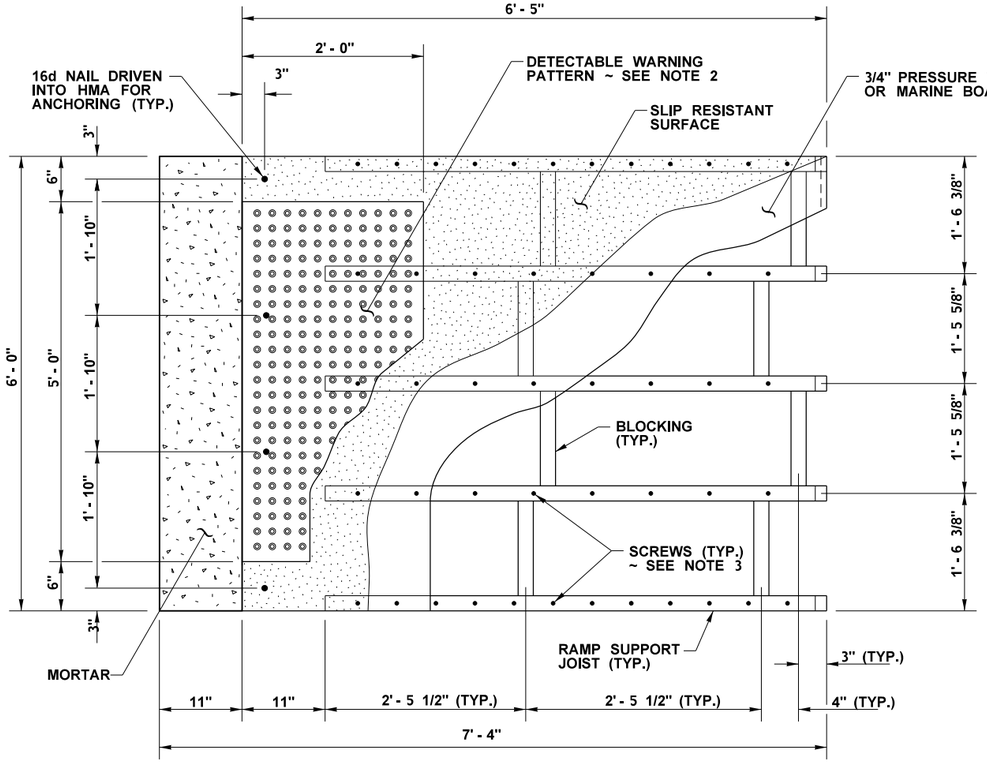
EXAMPLE 4-53

TRAFFIC CONTROL PLAN

Plot 13

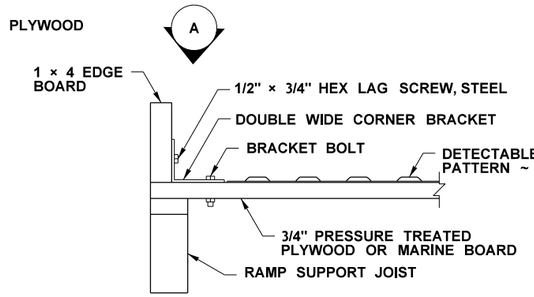
PLAN REF NO TC20

SHEET 81 OF 84 SHEETS



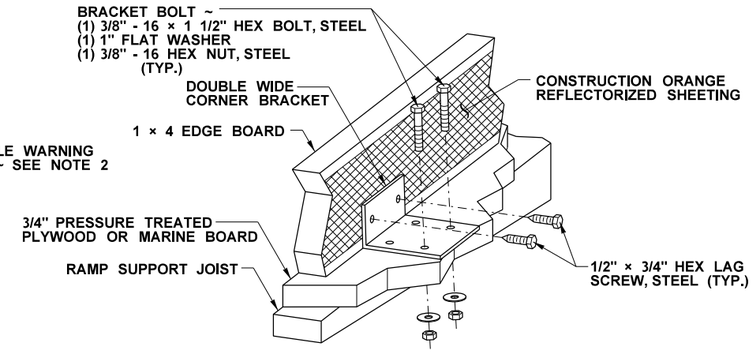
TOP VIEW

RAMP DETAIL



END VIEW

EDGE BOARD ATTACHMENT DETAIL



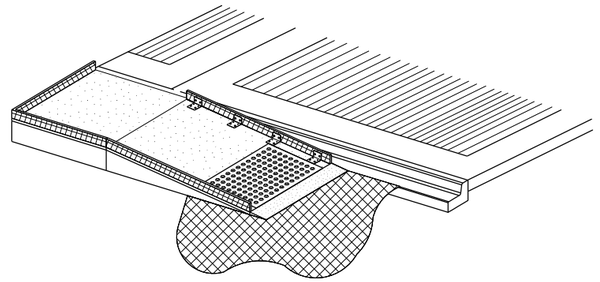
PERSPECTIVE VIEW

DETAIL A

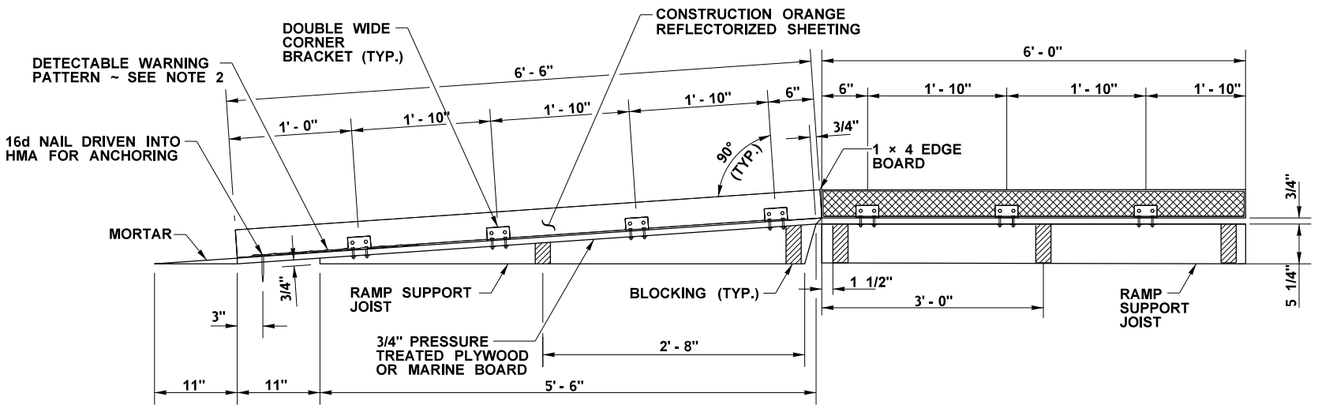
Notes to the Designer:

1) These WZTC plans are emphasizing the pedestrian access through the work zone.

2) These WZTC plans represents a mobile paving operation implementing ADA accessibility.



ISOMETRIC VIEW



SIDE VIEW

RAMP AND EDGE BOARD

TEMPORARY PEDESTRIAN RAMP WITH EDGE BOARD

NOT TO SCALE

NOTES:

1. THIS DESIGN ASSUMES OPTIMAL CONDITIONS AND A STANDARD CURB HEIGHT OF 6". ADJUSTMENTS TO THE RAMP DIMENSIONS SHOWN MAY BE REQUIRED TO MATCH EXISTING CONDITIONS. INSTALLED RAMPS SHALL BE NO STEEPER THAN 12H:1V, AND SHALL HAVE A CROSS SLOPE OF 2% OR LESS. USE SHIMS OR GROUT AS REQUIRED TO ADJUST FOR EXISTING CONDITIONS AND TO PREVENT ROCKING. SHIMS SHALL BE NO HIGHER THAN 1", AND SHALL BE SECURED TO THE RAMP. FOR CURBS SHORTER THAN 6", INSTALL A RAMP ON THE SIDEWALK, NO STEEPER THAN 12H:1V, MADE OF GROUT OR AS APPROVE BY THE ENGINEER.
2. THE DETECTABLE WARNING PATTERN SHALL BE INSTALLED ONLY WHEN THE INTENT IS TO GUIDE PEDESTRIANS DIRECTLY ACROSS THE ROADWAY (CROSSWALK). SEE STANDARD PLAN F-40.10-01 FOR DETAILS.
3. SCREWS AS SHOWN ON DETAIL A, SHALL BE USED TO SECURE THE RAMP SURFACE. SPACING SHALL BE IN ACCORDANCE WITH THE CURRENT BUILDING CODE.
4. USE A SLIP RESISTANT TREATMENT FOR THE SURFACE OF THE RAMP, AS APPROVED BY THE ENGINEER. SEE SPECIAL PROVISION; ⅞TEMPORARY PEDESTRIAN RAMP⅛.
5. ALL FASTENERS SHALL BE GALVANIZED.

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CHECKED BY	TEAM LEAD						
PROJ. ENGR.	PROJECT ENGINEER						
REGIONAL ADM.	REGIONAL ADM.	REVISION	DATE	BY			

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Washington State Department of Transportation

EXAMPLE 4-54

TRAFFIC CONTROL DETAILS

Plot 14

PLAN REF NO **TCD1**

SHEET 83 OF 84 SHEETS

600.01 Introduction

Contract Provisions are legally enforceable specifications to contracts formed between the Washington State Department of Transportation (WSDOT) and contractors.

(1) General

Contract Provisions consist of the following:

1. Notice to Planholders
   - Project Engineer's name, address, and phone number
2. Table of Contents
3. Amendments
   - Revisions to the *Standard Specifications for Road, Bridge, and Municipal Construction (Standard Specifications)*
4. Special Provisions
   - A combination of the General Special Provisions (GSPs) and project-specific provisions
5. Boring Logs
   - All final boring logs provided by the WSDOT Geotechnical Division, Region Materials Engineers, and/or consultants
6. Federal-Aid Provisions
   - For federal-aid projects
7. Prevailing Minimum Hourly Wage Rates
   - State, federal, or both, depending on project funding
8. Proposal (informational copy)
   - Subcontractor List
   - Signature Page
   - Declaration of Non-Collusion
   - Certification for Federal-Aid Contractors
9. Appendices to the Special Provisions
10. Forest Service Provisions (if applicable)
11. Railroad Insurance Forms (if applicable)
12. Other Documents

(2) PS&E Word Program

This section will discuss the PS&E Word Program, Amendments, GSPs, and project-specific provisions.

The Amendment and Special Provisions sections of the Contract Provisions are created using the WSDOT "PS&E Word Program" (see the Appendices for a User's Guide). Each Amendment and GSP is given a unique file name. That file name is a number that corresponds to the section of the *Standard Specifications* being supplemented or revised by the document. Project-specific provisions are assigned a unique file name by the writer of the document.

The designer makes a list, called the run-list, of the applicable file names, and the computer system compiles the actual documents in the order requested on the run-list.

The PS&E Word Program allows the designer to access the Amendments and GSPs through the region's computer network system and enables designers to:

- Read the documents.
- Compile the run-list.
- Write the project-specific information.
- Insert the information in the run-list.
- Compile the completed Contract Provisions.
- Create the Table of Contents.

WSDOT offices, consultants, and local agencies not connected to the WSDOT computer network system can download the PS&E Word program, Amendments, and GSPs from the Internet. Access this information on the WSDOT Project Development – Specifications, Amendments, and GSPS website at:
www.wsdot.wa.gov/Design/ProjectDev/Specifications.htm

For program compatibility issues, contact the WSDOT HQ Strategic Analysis Estimating Office (SAEO) for help.

The Internet information is updated on the same schedule as the WSDOT system, so the information is always current. It is the user's responsibility to regularly check for program, Amendment, and GSP updates at the Project Development Specifications website (see above) or by signing up for e-mail alerts at:
http://service.govdelivery.com/service/subscribe.html?code=WADOT_75

Assistance with the PS&E Word Program and the Amendment and GSP information is available through the HQ Strategic Analysis Estimating Office (SAEO) at:
www.wsdot.wa.gov/Design/ProjectDev/Specifications.htm

For complete instructions on how to use the PS&E Word Program, access the User's Guide for PS&E Support Contract Provisions at:
www.wsdot.wa.gov/publications/fulltext/projectdev/manuals/PS&EManual.pdf

600.02 Amendments

(1) General

The Amendments are revisions to the *Standard Specifications* that occur between printings. They are distributed by the HQ SAEO.

It is important for all designers to have the opportunity to see the Amendments when they are distributed so they are aware of changes in requirements, materials, and how work is being measured and paid. Too often, the most recent Amendments are included in a project and they conflict with information in the Special Provisions, the plans, or both, because the designer did not stay current with the changes. These conflicts can be costly.

The Index to the Amendments contains the file name, section heading, date of last revision, and instructions for use.

The Amendments file name identifies the section of the *Standard Specifications* being amended. For example, 10.AP1 indicates that Section 1-10 is being amended. When you create a Table of Contents using the program, the Amendment file name will be shown to the left of the section heading. When using the program, the Amendment filenames will automatically add to your run-list based on the options you choose.

It is recommended that you develop a system for marking your copy of the *Standard Specifications* to indicate the areas that have been revised by Amendment. When writing Special Provisions, this system makes it easy for you to determine whether the information in the book is the latest or it has been revised by an Amendment.

600.03 Special Provisions

(1) General

The Special Provisions consist of the General Special Provisions (GSPs), Region General Special Provisions (RGSPs), and the project-specific provisions.

(2) GSPs

GSPs are provisions that are written to cover legal and construction requirements that may occur on a project. They supplement or revise the *Standard Specifications* and are written to provide statewide standardization for the work covered. The State Construction Engineer is the approving authority for all changes made to the *Standard Specifications,* including GSPs. Consequently, after approval, these are available for use, in their original state, for multiple projects.

The Index to the GSPs contains the file name, section heading, date of last revision, and instructions for use.

The GSP file names are directly related to the divisions in the *Standard Specifications*. For example, 8-01.3.GR8 would be a GSP that either revises or supplements Section 8-01.3. The extension GR (General Roadway) is followed by the division number of the Standard Specification. The file name 8-01.3 refers to the section (01) and subsection (3) in the division.

A GSP is to be used, as is, if it is applicable to the project being developed. HQ Construction Office approval is needed for any revisions to GSPs.

(3) RGSPs

RGSPs are provisions that are written to cover the legal and construction requirements that occur on projects that differ from region to region. They supplement or revise the *Standard Specifications* and are written to provide regionwide standardization for the work covered.

RGSPs are approved for region use by the State Construction Engineer. After initial approval, no justification needs to be submitted to the State Construction Engineer to incorporate an RGSP into your contract package. Any modifications to an already approved RGSP will require resubmittal to the State Construction Engineer.

The Index to the RGSPs contains the file name with a region identifier, section heading, date of last revision, and instructions for use.

The RGSP file extension has a region identifier assigned to each region after the file name. The identifier is .DT1 through .DT6 depending on what region is applicable. For example, 0108.DT1 would be for the Northwest Region.

(4) Project-Specific Provisions

The project-specific provisions are written by the designer to supplement or revise information in the *Standard Specifications* and Amendments to make them fit the project being developed. Project-specific provisions are not to duplicate information contained in the *Standard Specifications*, Amendments, GSPs, or plans.

Approval of project-specific specifications that alter the *Standard Specifications* (WSDOT Spec. book) is required prior to inclusion in your contract. All project-specific specifications are to be sent, along with justification, to the State Construction Engineer for concurrence and approval. Special provisions prepared by a support group must be reviewed to ensure they fit within the specifications/Special Provisions of the project. Any changes to a support group Special Provision must have concurrence and approval prior to sending it to the State Construction Engineer.

Project-specific provisions should be thought of as "project-specific Amendments." In order to know what information needs to be added to supplement the information in the *Standard Specifications*, or what information in the *Standard Specifications* needs to be revised to be applicable to the project, you have to be familiar with the information in the *Standard Specifications*. No one is expected to memorize it, but you are expected to read the applicable information and Amendments before you start writing. The field inspector will be using the *Standard Specifications* to construct the project, so it is reasonable that you use it as a design tool and the basis for every project-specific provision you write.

Project-specific provisions will be preceded by six asterisks in parentheses (******). The asterisks are to be placed after Standard Specification headings and ahead of the project-specific information that either supplements or revises the Standard Specification, as follows:

700.01 General Requirements

(1) DBE or MWBE Goals

Disadvantaged Business Enterprise (DBE) goals for federally funded projects are **condition of award goals**. In order for the bid to be considered responsive, the low bidder must either meet the established goal or demonstrate Good Faith Efforts in meeting the goal. The HQ External Civil Rights Branch establishes these goals and monitors DBE participation. Minority and Women's Business Enterprise (M/WBE) goals for state-funded projects are voluntary; however, the outreach efforts to provide M/WBEs maximum practicable opportunities are not. On state-funded projects, prime contractors shall submit an M/WBE Participation Plan as part of their responsibility, before work begins.

(2) Alternate/Cumulative Bids

(a) **Alternate Bids**

It is, at times, desirable to solicit bids using alternates for specific bid items for work to be performed under the contract. The contract Estimate, Proposal, and Summary of Quantities will be divided into sections. One section will contain the base information, and there will be a section for each of the alternates. This requires the contractor to bid the base portion of the project and to bid the alternates as required by the Special Provisions. By comparing the base bid plus the alternate bids, WSDOT is able to determine the most economical combination.

One of the conditions of setting up a project in this manner is that WSDOT has to treat each of the alternates as equal, and make the decision regarding which is the best bid based on the lowest cost Alternate Plus Base Bid.

This is different than allowing the contractor the latitude to choose between different material options available for a contract item.

For additional information concerning alternates, refer to the *EBASE Users Guide*.

(b) **Cumulative Alternative Bids**

Use in contracts when the award process is modified to include Cumulative Alternates. The region shall determine and notify the Ad and Award Office of the Funds Available. The bid items shall be segregated into a Base Bid and Alternates, as appropriate. Fill-ins consist of a brief description of the portion of the project or of the work that is included in the noted Alternates. The specification language may be adjusted to suit the number of Alternates.

For further information on how this is to be used in a project, see Division 1-02.6, General Special Provisions.

(3) Addenda

Addenda are revisions to the plans and contract provisions that are made **during** the advertising period. Addenda are to be issued only when the revision will affect the contractor's ability to provide a responsible bid. Consult with the Region Plans Office to coordinate preparation and notification to plan holders.

Items to be considered for preparing addenda, which would affect the scope of work and the contractor's ability to accurately bid the project, might include:

- Material specification changes.
- New bid item(s).
- A substantial quantity revision (generally, a 25% or greater increase or decrease) for an item in the bid documents.
- A revision to a legal requirement in the contract.
- A new supplement or a revision to the Special Provisions.

Small adjustments to quantities, spelling, and punctuation, and design changes that do not affect quantity and relocation of items of work within the project will not normally require an addendum because they will not affect the way the contractor bids the project. These items are not to be ignored, but the information, in the form of revised plan sheets, need only be passed along to the office of the construction project engineer, so they can be incorporated into the project and given to the contractor that is awarded the project. For example:

- **Not required for addenda:** The advertised project has 23 catch basins to be installed, and it is discovered that an additional catch basin, not shown on the plans, will be required. This would not warrant an addendum if this were the **only change** being made. The small change in quantity will not impact the contractor's bid. This can be handled under construction as any other increase in quantity.
- **Addenda Required:** The addition of the one catch basin causes the 18-inch-diameter pipe item to increase from 985 feet to 1,250 feet. This increase in pipe length is greater than 125% of the original, which could cause this item to be renegotiated under the contract, so the addendum would be justified. Since the addendum is required for the pipe, the additional catch basin would also be included in the addendum.

For instructions and procedures on preparing addenda, see the Appendices.

(4) Standard Plans

WSDOT's *Standard Plans* are made a part of contracts by reference in the Special Provisions. Plan details that duplicate details in the *Standard Plans* are not to be drawn, and the designer is not to redesign a Standard Plan by detail in the project. It is important that standard work be done the standard way, and that standard materials be used whenever possible; in almost all cases, standard materials cost less.

(5) Competitive Bidding, Proprietary Items, and Use of the Qualified Products List (QPL)

(a) Competitive Bidding

WSDOT uses competitively acquired products to fulfill the requirements of a contract whenever feasible. This helps achieve the lowest prices, the best product quality, and the most efficient use of resources.

There are several ways to specify bid items or materials in a contract that create a competitive bidding environment. Following are three different methods, listed in order of preference:

1. **Specifying by Standard or Nonstandard Bid Items**

   This method doesn't use brand names. The contractor is allowed to choose the product, as long as it meets the requirements of the *Standard Specifications* and contract provisions. This method fosters a competitive bidding environment and does not require approval for proprietary items.

2. **Specifying Brand Names and Allowing for Approved Equals**

   When brand name specifying, the designer is providing the bidder with options by naming at least two products or manufacturers that are acceptable and allowing for "approved equals" followed by a performance specification. When this is done, no approval is required for usage; it is not considered a proprietary item.

   A good specification for brand name specifying will read as follows:

   The (type of product) furnished shall be (brand name, model), (brand name, model), or an approved equal having the following features (functions):

   a. (feature)

   b. (feature)

   c. (feature)

   In order to find the two acceptable items, the designer had to be looking for certain features or functions. These features or functions are the ones that need to be clearly identified in the Special Provision.

3. **Specifying at Least Three Brand Names**

   Listing a reasonable number (three or more) of brand names/models that are acceptable is a competitive bidding environment also and doesn't require approval. A performance specification is not required.

(b) **Specifying Proprietary Items**

There are instances in which competitive bidding may not or cannot be provided and a specific proprietary product is allowed. This applies to temporary items/ materials as well as permanent items/materials incorporated into the project.

By the FHWA Stewardship Agreement, WSDOT has adopted the Code of Federal Regulations (CFR) for use of proprietary items on all projects. Specific guidelines regarding the use and certification of proprietary items are provided in 23 CFR Part 635.411. The CFR guidelines state that federal funds shall not participate, directly or indirectly, in payment for any proprietary product unless one of the following applies:

1. It is purchased or obtained through competitive bidding with equally suitable other items (the three methods found above).
2. It is certified that:
   a. The proprietary item is essential for synchronization with existing highway facilities. Synchronization may be based on:
      - Function (the proprietary product is necessary for the satisfactory operation of the existing facility. A product could be essential due to the fact that it has been tested with other components and is documented to work with existing components or that it is a one-of-a-kind item. A product or manufacturer could be essential because using anything else would require replacing other components of the existing highway system,
      - Aesthetics (the proprietary product is necessary to match the visual appearance of existing facilities),
      - Logistics (the proprietary product is interchangeable with products in an agency's maintenance inventory), or
      - Any combination thereof.

   Or

   b. No other equally suitable alternative exists:
      - The product (or manufacturer) is one of a kind.
      - Other workable alternative products or manufacturers are not equal in longevity, cost, delivery, durability, compatibility, warranty, and so on.
3. It is used for research or for a distinctive type of construction on relatively short sections of road. It is for experimental purposes to obtain experimental information on a product or manufacturer for the public good. When requesting this type of usage, approval documentation showing the scheduling, monitoring, results, and conclusion are required with the request (www.wsdot.wa.gov/design/projectdev/proprietaryitems.htm).
4. A proprietary product may be used when other equally suitable alternatives exist, if approved by the FHWA Division Administrator (for federal-aid projects) or by the Assistant State Design Engineer (for state-funded projects) because it is in the public's interest.

These guidelines are valid for state-funded projects also.

(c) Using Proprietary Items in Contracts

Prior to advertisement, the designer needs to request and receive written certification for any proprietary material, work, manufacturer, or product included in a project. It is the designer's responsibility to submit a memorandum of justification to the Assistant State Design Engineer in sufficient time for it to be reviewed and acted upon (sent to FHWA if required), and for adjustments to be made to the contract should the use be denied.

There are two basic types of requests that can be submitted for approval:

- Use of the proposed proprietary item will be allowed for regionwide or statewide use, referred to as a "blanket certification" (this is usually valid for a biennium). A copy of the original certification shall be placed in the Design File. Copies can be found on the "Current Blanket Proprietary Certifications" web page at:
  http://www.wsdot.wa.gov/design/projectdev/blanketapprovals.htm
- Use of the proposed proprietary item will be allowed for a specific project only (just for the duration of the project). The original signed certification shall be placed in the Design File.

An example of the memorandum of justification and a shell document can be seen at: www.wsdot.wa.gov/design/projectdev/proprietaryitems.htm

Approval of a proprietary item does not override the federal specification for foreign steel (Buy America) or the applicable General Special Provisions (GSP, Division 1).

When a proprietary item has been certified, the designer will, in the Special Provisions, give the product manufacturer, model, model number, and any additional information required to ensure only the specified item will be furnished. There will usually be only one item named in the Special Provisions when listing a proprietary item. The phrase "or approved equal" will **never** follow the naming of a proprietary item in a Special Provision. There are no options allowed. The contractor's bid is to reflect the price to supply and incorporate the one item specified.

(d) Using the Qualified Products List

There is a definite difference between proprietary item specifying and brand name specifying, and the Qualified Products List (QPL) has nothing to do with either proprietary or brand name specifying.

The QPL is a list of products and materials that have been preapproved for use on WSDOT projects. If the contractor chooses to provide items listed on the QPL, there is no need to submit a Request for Approval of Manufacturer. For some products or materials on the QPL, there is no requirement to submit the items for testing prior to using the product or material on the project.

The preapproval of items in the QPL does not mean they are the only products or materials that will be allowed. The contractor can provide any product or material that meets the specifications, whether they are listed in the QPL or not.

(6) Buy America

Check with the Construction Office to verify whether or not this item is required for the project.

(7) Legal Relations and Responsibilities to the Public

Section 1-07.1 of the *Standard Specifications* requires the contractor to comply with all federal, state, or local laws and regulations that affect work under the contract. These laws and regulations do not need to be identified in the contract. However, certain project-specific regulations, such as permits, agreements, MOUs, licenses, variances, or others, need to be identified in the contract. Examples of such regulations with conditions that need to be part of the contract are: HPA, EIS, Noise Variance, Shoreline Permit, Department of Ecology MOU, and other documents that would affect or restrict work on the contract.

In many cases, the GSPs will trigger the need for the text of such documents to be listed in the Special Provision, either as a fill-in or as an appendix. When construction activities require the need for a permit, variance, agreement, MOU, or other regulations, the designer should always discuss the need for such documents to be put in the contract with the appropriate region support personnel.

(a) Decommissioning of Wells Procedure

The water well abandonment procedure shall adhere to the Washington State Department of Ecology (Ecology) regulations for abandonment of water wells following the guidelines in WAC 173-160-460 and RCW 18.104.048. Notice shall be given at least seventy-two hours in advance of commencing work. The notice shall be submitted on forms provided by Ecology, along with the proper fees.

(8) Washington State Laws

Following is a partial listing of laws that are frequently used in the administration of WSDOT contracts:

1. RCW 4.24.360: Any clause in a construction contract that disallows a contractor, subcontractor, or supplier any damages due to unreasonable delays in performance caused by WSDOT is void and unenforceable.
2. RCW 18.27.090: Contractors are exempt from contractor registration laws provided they are prequalified by WSDOT.
3. RCW 18.104.048: Prior notice of well construction, reconstruction, or decommissioning of wells is required (see 700.01(2)(a)).
4. RCW 19.122.040: Existing utility locations (see 400.06 for the contents of this RCW).
5. RCW 39.12: Wages (see Section 1-07.9 of the *Standard Specifications*).
6. RCW 39.19: See the GSP concerning minority and women's businesses.
7. RCW 46.44: Vehicle weight limitations within project boundaries.
8. RCW 47.28.030: State Force Work and materials (see 700.09(11)).
9. RCW 47.28.035: Related to RCW 47.28.030, State Force Work and materials (see 700.09(11)).

10. RCW 47.28.070: Prequalification of contractors (see Section 1-02.1 of the *Standard Specifications*).
11. RCW 47.28.100: Contractors are allowed 20 days after award to execute a contract. WSDOT may extend this time no more than an additional 20 days (see Sections 1-03.3 and 1-03.5 of the *Standard Specifications*).
12. RCW 47.28.120: Contractors must file their claims within 180 days after acceptance (see Section 1-09.9 of the *Standard Specifications*).
13. RCW 47.30: Requirements for paths and trails.
14. RCW 49.28: Wages – overtime.
15. RCW 60.28.011: WSDOT must hold 5% of the contract amount in reserve for material and worker claims. Contractors can post a bond in lieu of the reserve fund (see Section 1-09.9 of the *Standard Specifications*).
16. RCW 78.44: A Contract Reclamation Plan is required for every WSDOT contract that contains a WSDOT-furnished materials source (see 400.06).

Some of the laws are referenced in the *Standard Specifications* or the GSPs; some are not. In either case, these laws are not to be altered. All Special Provisions that appear to be altered should be questioned.

(9) Asbestos Removal

When the removal of asbestos or items containing asbestos is required, or when asbestos is suspected, the specifications shall include sufficient information and detail to inform the contractor of the nature and location of the asbestos. There are GSPs that are to be included in the contract provisions. The WSDOT *Asbestos Abatement Manual* is to be used to determine whether there are special conditions or requirements that should be included in the contract provisions. (You can access a copy of the *Asbestos Abatement Manual* through the WSDOT Library at: www.wsdot.wa.gov/library, or send them an e-mail at: library@wsdot.wa.gov.)

(10) Permits

A conscientious effort shall be made to ensure all permits necessary for the project are completed and signed prior to the project going to Ad. However, in the event this cannot be accomplished, it is the responsibility of the region to determine the risk involved in going to Ad without the completed permit, in accordance with the *Advertisement and Award Manual*.

(11) Training Goals

The bid item for "Training" is to be provided on most federal-aid projects. For projects with federal-aid dollars, 23 CFR Part 230.111 requires all state highway agencies to review projects to determine their ability to support the inclusion of "Training Special Provisions" hours. The training goals, in terms of the total number of training hours required, are established by the HQ External Civil Rights Office. The number of training hours, if assigned to a project, is based on the following:

- Total estimated project labor hours
- Availability of minorities, women, and other disadvantaged individuals
- Potential for effective training
- Duration of the contract
- Dollar value of the contract

- Anticipated workforce size
- Project location
- Scopes of work

The region may submit a training recommendation for consideration by the HQ External Civil Rights Office. If the region is submitting a training recommendation, it needs to provide an estimation of total projected project labor hours.

Note: If you have any questions regarding either of the two programs referred to above, please contact the WSDOT Office of Equal Opportunity at 360-705-7090.

(12) Assigning the Risk

It is important that the contractor be able to determine whether the risks on the project will be the contractor's responsibility or will be borne by WSDOT. In most cases, it is best to assign the risk to WSDOT. This keeps the contractor from having to inflate bid prices to offset the possible risks of doing the work. These inflated prices cost WSDOT extra dollars when the problem does not materialize.

- For example, do not say, "The contractor may encounter obstructions during the excavation." The contractor has to assume that obstructions will be encountered and that they will be the contractor's problem when they are. The unit price for the excavation will include the cost of obstruction removal, and WSDOT will pay for the removal even if there are no obstructions encountered.
- It would be much better to say, "If obstructions are encountered during excavation, the Engineer will pay for the removal of the obstruction in accordance with Section 1-09.4 of the *Standard Specifications*." Now the contractor can bid the actual cost of doing the excavation work and be confident that if something out of the ordinary is encountered, the cost of removal will be dealt with fairly, and if there are no obstructions encountered, there is no cost to WSDOT.

(13) Agreements

All agreements necessary for the project should be complete and signed prior to the project going to Ad. If this cannot be accomplished, it is the responsibility of the region to determine the risk involved in going to Ad without the completed agreement, in accordance with the *Advertisement and Award Manual*. Particular attention is to be paid to the following:

- The quantities, bid item names, units of measurement, and prices in the agreement should to be the same as those in the PS&E.
- Another party may be financially responsible for some of the work in WSDOT's contract, such as the construction of sidewalks, utility installations, signal systems, pavement markings, intersection improvements, and so on.
- Though not common, some participating agreements will contain an "out clause," which allows the outside agency to withdraw the work if the bid prices are not favorable. When an out clause is included in the agreement, the GSP titled "Award of Contract" needs to be included in the contract provisions.

For agreements with an out clause, each bid item needs to be set up with a separate bid item name and placed in a separate group in the Summary of Quantities. A Special Provision needs to address each bid item.

When preparing the estimate of cost for an agreement for work under the contract that is the financial responsibility of an outside agency, mobilization, engineering, and contingencies are to be included.

Additionally, agreements that include work that WSDOT's contractor will perform, or work performed by others that WSDOT will reimburse a third party for, should be clearly stated in the project Special Provisions.

For more information on agreements, see the *Agreements Manual* or contact the HQ Utilities, Railroad, and Agreements Section.

(14) Haul Road and Detour Agreements

When the project provides a materials source, or requires traffic to be detoured from the state highway, the region may be required to acquire agreements with the owners of the roads that will be used as the haul road or the detour route. (See the Haul Road/Detour Agreements chapter in the *Agreements Manual* for guidance.) The process of generating an agreement should be started as early in the design phase as possible. Discuss with region personnel responsible for processing agreements. The lack of a completed agreement may cause a project Ad date to be delayed. It is the responsibility of the region to determine the risk involved in going to Ad without the completed agreement, in accordance with the *Advertisement and Award Manual.*

The agreement will normally provide compensation to the owner of the haul road or detour for damage done to the road by the hauling equipment or by the extra traffic on the roadway. The compensation may be in the form of work to be done under the contract to bring the roads back to precontract conditions, or the owner may be paid a cash settlement and would be responsible for making the repairs.

All haul roads and detours are to be clearly shown and labeled on the Vicinity Map.

(15) Vehicle Weight Limitations Within Project Boundaries

The designer is to review each individual project to determine whether the vehicles employed in the construction that exceed the gross weight limitations, per RCW 46.44, can be tolerated.

When existing bridges or major drainage structures are involved, overweight clearance is obtained from the HQ Bridge and Structures Office. The clearance information provided by the HQ Bridge and Structures Office is to be included in the PS&E portion of the Project File.

The designer is to use the information in the *Standard Specifications*, or include the appropriate GSP in the contract provisions, to inform the contractor of the load limit restrictions for the project.

(16) Working Days

The designer needs to give careful consideration to the number of working days allowed for a project. Too many working days can cause as many problems as not enough working days.

The determination of working days for the different work items is to be based on production rates and other considerations (see the Appendices). Using the time required for the individual work items, the Critical Path Method (CPM) (see Appendix 6) is then used to determine how the project work will fit together, and the total number of working days will be determined.

The working days required for bridge construction are to be coordinated with the working days required for the other construction.

The CPM will be placed in the PS&E portion of the Project File.

(17) Liquidated Damages

(a) HQ Construction Office Approval Required

Liquidated damages are monies assessed or withheld from the contractor's payment for failure to complete the project within a specified period of time. Liquidated damages are not to be considered a penalty, but reimbursement for the costs to the contracting agency for the contractor's failure to perform within the time frame of the project.

There are two types of liquidated damages to be considered for a project:

1. **Contract Time-Related Liquidated Damages**

   Liquidated damages for Physical Completion are calculated in accordance with the formula in Section 1-08.9 of the *Standard Specifications*. This formula actually calculates the estimated cost to WSDOT to continue engineering the project beyond the allotted contract time, but is presented in the contract as compensation for any and all damage resulting from an unexcused extended duration. The designer must avoid double charging through both the Standard Specification and a separate Special Provision for the same extended days. This situation may arise when an interim completion milestone is violated after all contract time has expired. Only the contract time-related liquidated damages may be assessed.

   The designer must be able to identify and document the cost(s) associated with the damage. All liquidated damages that are different from the Standard Specification require the approval of the HQ Construction Office or the delegated region official. Submit the proposed provision and the calculations supporting the damage amount to the HQ Construction Office.

2. **Interim Completion of Phases (Staging)**

   Interim liquidated damages are monies assessed or withheld from the contractor's payment for failure to complete a part (phase or stage) of the project within a specific period of time identified in the Special Provisions.

   Large or complex projects often have interim completion times, with liquidated damages for such things as failure to open a closed lane(s), ramp(s), or detour(s) to all traffic by a specified time, or for completion of all work identified for a specific stage or phase of a project as defined in the Special Provisions. These types of liquidated damages can be assessed in time increments that range from 15-minute to full-day segments.

   Liquidated damages assessed for failure to have a lane, ramp, or roadway open to traffic, or to have an Intelligent Transportation System (ITS) operational at the specified time, are an estimate of the actual cost to the contracting agency and the traveling public for not having that portion of the road or ITS available. The Statewide Travel and Collision Data Office (STCDO) (formerly the HQ Transportation Data Office (TDO)) has standardized methodology for calculating the cost, based on traffic counts. This is the only acceptable way of calculating these costs (see http://wwwi.wsdot.wa.gov/planning/collisionand traveldata/liquidated_intro.htm).

Once the designer has received these calculated costs from the STCDO, the region must make the determination whether or not the damages represent a sufficient benefit to the state to put them in the contract.

Interim liquidated damages for two or more separate reasons can be additive for the same time period.

A copy of the data used to justify liquidated damages and a copy of the STCDO information is to be placed in the PS&E portion of the Project File.

(18) Fuel Cost Adjustments

Check with the Construction Office to verify whether or not this item is required for the project.

(19) Steel Cost Adjustment

Check with the Construction Office to verify whether or not this item is required for the project.

(20) Force Account Work

Standard Item Number 7715, "Force Account ____," has been created to monitor the total amount of money spent on force account work. This standard item, with the appropriate fill-in information, is to be used for all force account bid items, except for those that already have a standard item number.

If work can be measured and clearly identified, the design should use existing standard bid items. If the work is not quantifiable or cannot be easily measureable, the use of this item may be appropriate.

The use of this standard item number does not preclude the need for a project-specific provision to describe the work to be accomplished.

The force account item is to be placed in the appropriate section on the Summary of Quantities. (A force account removal item would be placed with the other removal items; a force account structure item would be placed with the other structure items.)

(21) Lump Sum Bid Items

A lump sum bid item may include several items of work or the same item of work at different locations. The Special Provisions must cover the complete item of work, including the description of work, materials, construction requirements (which includes the approximate quantities for bidding purposes), and payment statements. The quantities listed should be double-checked to avoid contractor claims.

Only work that can be easily defined by quantity, amount of effort, and equipment and labor requirements is to be included in lump sum items. If any of these items are unknown/uncertain, payment at unit prices or by force account would be more appropriate.

The backup data used to determine the estimated cost for lump sum bid items is to be placed in the PS&E portion of the Project File.

The designer must decide whether each lump sum bid item is to be prorated or whether individual Summary of Quantities column costs are to be assigned for each lump sum bid item.

700.02 Earthwork

(1) Earthwork Measurement

Measurement of earthwork other than as specified in the *Standard Specifications for Road, Bridge, and Municipal Construction (Standard Specifications)* requires the approval of the HQ Construction Office. (See Division 6 for more information on developing a Special Provision.)

(2) Clearing and Grubbing

For estimating purposes, clearing is to be calculated as being performed 10 feet, and grubbing 7 feet, beyond the toe of slope for embankments and the upper limit of slope treatment in cuts. Coordinate with the Region Landscape and Environmental offices on the proposed limits, and show these limits on the proper plan sheets.

If clearing requires the cutting of merchantable timber amounting to at least one log truck load (approximately 5,000 board feet) from within the right of way, the General Special Provision (GSP) for Timber Export Restrictions is to be included in the contract provisions. This GSP notifies the contractor that they will be required to pay to the Department of Revenue the forest excise tax on the harvested lumber.

(3) Removal of Pavement, Sidewalks, or Curbs

When looking at work requiring removal of pavement, sidewalk, or curb, the method of measuring and paying for the work is determined on where work is occurring: within or outside the limits of an excavation area.

(a) **Outside**

When pavement, sidewalk, or curb removal is required **outside the limits** of an excavation area, it can be included in the lump sum price for "Removal of Structures and Obstructions," or separate bid items may be established for the work.

If the work is included as part of the lump sum item, the Special Provisions will indicate the approximate locations and quantities. If separate bid items for removal are established, the individual items will appear on the Quantity Tabulation sheets, where the approximate locations and quantities will be indicated. In either case, the locations of the removal items will be indicated on the plans as well.

(b) **Within**

When pavement, sidewalk, or curb removal is required **within the limits** of an excavation area, nothing is required on the plans or in the Special Provisions. All costs for the removal of the pavement, sidewalk, or curb are included in the excavation work, and no additional compensation is made to the contractor.

The other possibility is that, for some reason, the designer wants the contractor to remove the pavement, sidewalk, or curb that lies within an excavation area prior to performing the excavation. In this case, the work would be handled as described above for removal outside an excavation area.

(4) Borrow Material

Because WSDOT is committed to conserving valuable mineral resources, it is imperative that careful consideration be given to the earthwork portion of every project, to ensure the most efficient and cost-effective use of the material from the roadway excavations.

If there is insufficient roadway excavation material due to a shortage of on-site material or because all, or a portion of, the on-site material is known to be unacceptable for constructing embankments, material will have to be imported, and a borrow item will be included in the project.

If the borrow is required because the roadway excavation material is not acceptable for embankment construction, the Special Provisions shall identify the locations of the unacceptable roadway excavation material. Consult with the Region Plans Office on how this information is to be presented.

If a single type of borrow material is required to supplement the quantity of roadway excavation material, it will be the contractor's responsibility to determine the most efficient and cost-effective means and operations of using the on-site material and the borrow to construct the embankments. In this situation, the borrow material quantities will appear only on the Summary of Quantities, and they will not be shown as a quantity on the roadway profile sheets. The designer needs to note in the Contract Plans or the Specials that the quantity of borrow shown in the Summary of Quantities is to be used to supplement the quantity of roadway excavation at his discretion for constructing embankments. Otherwise, the contractor will not know it is WSDOT's intent to have the two items used together.

If the borrow material is being used only at specific, well-defined locations on the project (bridge end embankments, for example), the exact locations are to be identified on the roadway profile by showing the quantity arrow, indicating the station-to-station limits and quantity of borrow material needed for the embankment construction. If profiles are not included in the project, the Special Provisions are to contain a statement such as, "Gravel borrow shall be used to construct the bridge end embankments, L X+XX to L X+XX."

If two or more types of borrow material are required, the specific locations for all but one of the types of borrow shall be identified on the profiles, or in the Special Provisions, as described above. For example:

- If gravel borrow is required for the construction of bridge end embankments, and common borrow is required to supplement the roadway excavation material to construct other embankments, the station-to-station limits of the gravel borrow material are to be shown on the profiles or in the Special Provisions. It will remain the contractor's responsibility to determine the most efficient and cost-effective way to use the common borrow and the roadway excavation material to construct the remaining embankments. Therefore, show the common borrow quantity only in the Summary of Quantities.

In all cases, the quantities for roadway excavation and embankment shall appear on the Summary of Quantities and on the Profile sheets or, on smaller projects, tabulated on Quantity Tabulation sheets.

(5) Embankment In Place

This bid item is to be used on projects where earthwork consists mainly of borrow excavation. It provides payment for acquiring, excavating, hauling, placing, and compacting borrow materials to construct the embankment.

If there are minor quantities of roadway excavation included in the project, this work can be included in the item "Embankment In Place." Measurement for payment will be by the cubic yard volume between the original ground line and the neat lines of the embankment template. No allowance is made for subsidence or settlement.

The use of this item requires a Special Provision and approval by the HQ Construction Office. Include the following information when requesting to use this item:

- Assurance that the foundation on which the embankment material is to be placed is unyielding.
- Estimated quantities of excavation, embankment compaction, and roadway excavation.

(6) Aeration

If it is found necessary or desirable to include the bid item "Aeration" in a project, approval by the Headquarters (HQ) Construction Office is required. A copy of this written approval is to be included in the Plans, Specifications, and Estimates (PS&E) portion of the Project File.

(7) Shoring or Extra Excavation

All excavations of 4 feet or more in depth shall be shored, protected by cofferdams, or shall meet the open-pit requirements specified in the *Standard Specifications*.

RCW 39.04.180 requires that a separate bid item for shoring or extra excavation be included in the estimate and proposal. In no case shall the costs for shoring or extra excavation be included in other bid items.

700.03 Production From Quarry and Pit Sites and Stockpiling

(1) Materials Sources and Waste Sites

Materials sources provided by the contracting agency can be either mandatory or nonmandatory sites. For mandatory sites, verify with the region ASDE on the appropriate documentation needed, and refer to *Design Manual* Chapter 300 for approval authority of mandatory sites.

When mandatory materials sources or waste sites are specified, the region shall provide a memorandum of justification. For mandatory materials sources, justification shall be made in accordance with 23 CFR 635.407, showing a definite finding that it is in the public's best interest to require the use of the mandatory sites furnished or designated by the contracting agency. The use of mandatory sites can also be designated based on environmental considerations, provided the environment would be substantially enhanced without excessive cost. The memorandum of justification is to be placed in the Project File.

When nonmandatory sites are specified, the contracting agency makes the site available to the contractor, but the contractor has the option to use or not use the site.

For any mandatory source or waste site to be used, coordinate with the Region Plans, Materials, and Environmental offices.

Bid items for work to be performed within a nonmandatory site are to be site-specific; for example, "Wire Fence Type 1 – QS-X-XX." (See the GSP for State Furnished Material Sources for more information.) This allows the contractor the opportunity to bid zero for these site-specific items if they do not intend to use the site. If the contractor decides later to use the site, the work specified by the site-specific items will be performed, and the contractor will be paid at the bid amount of $0.00.

Site-specific items are not required for work to be performed on mandatory sites.

A separate column, under the appropriate group, is to be set up for each material source or waste site provided by the contracting agency. This allows the contractor to easily identify the work to be performed within a site and also allows for easy accounting of the work by WSDOT.

The region shall prepare a Haul Road Agreement if the haul route to or from the site is other than a state highway.

(2) Stockpiling Aggregates

Under the construction contract, the regions are authorized to spend M5 funds for acquisition of aggregates, provided the region's biennial M5 allocation is not exceeded.

The following Headquarters offices need to be advised by the region of all M5 aggregate stockpile acquisitions made under a construction contract:

- Administrative Services Office, Purchasing and Inventory Branch
- Comptroller's Office, Budget Management Branch
- Program Management Office, Program Manager
- Pre-Contract Administration Office

(3) Amortization of Materials and Stockpile Sites

If a state source of materials is provided, the project report form is to include the dollar amount to be amortized, providing the region intends that amortization be included in the project.

The estimate will include the dollar amount so that federal-aid participation can be obtained on federal-aid projects, or so that proper accounting procedures can be followed when only state funds are involved.

(4) Royalties on Materials Sites

If the contracting agency furnishes a materials site owned by others, and the owner requires that a royalty be paid for materials removed from the site, the dollar amount of the royalty, and who will be responsible to pay the royalty, will be specified in the Special Provisions. FHWA has authorized federal-aid participation in royalty payments.

700.04 Bases

(1) Asphalt Treated Base

A bid item for "Anti-Stripping Additive" shall be included in all projects with bituminous surface treatment (BST) using cut-back (not emulsified) asphalts, HMA, and asphalt treated base (ATB).

The estimated force account dollar amount for "Anti-Stripping Additive" can be calculated at $1 per ton of HMA/ATB. Round the total estimated amount to the nearest $10.

700.05 Surface Treatments and Pavements

(1) Asphalt for Fog Seal

The item "Asphalt for Fog Seal" is normally associated with bituminous surface treatment (BST) projects and the shoulders of paving projects that place only HMA in the traffic lanes, and it is required on all open-graded HMA projects as well.

(2) Soil Residual Herbicide

The item "Soil Residual Herbicide" should be used in conjunction with HMA, asphalt concrete sidewalks and paths, or parking lots only when very aggressive weeds that are capable of breaking through pavement are in the vicinity. Those weeds include equisetum and knotweeds. The designer is to check with the Maintenance Supervisor responsible for the area for a recommendation on whether soil residual herbicide is required.

(3) HMA for Preleveling

The bid item for "HMA for Preleveling Cl. ____ PG ____" is to be provided when a project requires preleveling of the existing roadway surface.

The quantity of preleveling is to be based on a survey of field conditions. In some regions, this survey may be made by the Materials Laboratory and it may provide the prelevel rate or quantity.

The roadway sections should show in the typical sections where and what type of prelevel is to be completed (wheel rutting or on a lane to correct a super rate issue) so that the contractor knows how to bid and what equipment is expected to be used.

(4) HMA for Approach

The item "HMA for Approach Cl.____ PG____" is to be used when there are road approaches to be paved on the project.

This is not to be confused with county roads and city street intersections. County road and city street intersections shall be included in main line paving quantities.

Road approaches will be identified by approach sections on the roadway section sheets, and on the Paving Plans, if they are present, so the contractor is aware of the number, locations, and paving requirements. Place HMA quantities for each approach either in a table or in the Quantity Tabulation sheets.

(5) Anti-Stripping Additive

A bid item for "Anti-Stripping Additive" shall be included in all projects with bituminous surface treatment (BST) using cut-back (not emulsified) asphalts, HMA, and asphalt treated base (ATB).

The estimated force account dollar amount for "Anti-Stripping Additive" can be calculated at $1 per ton of HMA/ATB. Round the total estimated amount to the nearest $10.

(6) HMA Price Adjustment

Check with the Construction Office to verify whether this item is required for the project.

(7) Other Price Adjustments

Check with the Construction Office to verify whether or not any other price adjustments are required for the project.

(8) HMA Quality Assurance

As an incentive for contractors to provide superior quality HMA, the Washington State Department of Transportation (WSDOT) will pay a bonus of up to 5% of the unit bid price of the HMA. The bonus is comprised of 3% for the mixture and 2% for compaction. When a project calls for paving with HMA, the item "Job Mix Compliance Price Adjustment" (JMCPA) will be required. For HMA accepted by nonstatistical or commercial evaluation, this item is only used when there is nonconforming mix resulting in a credit. For HMA accepted by nonstatistical or commercial evaluation, the JMCPA will be -$1 for the estimate. For HMA accepted by statistical evaluation, the JMCPA will be calculated using the following formula:

JMCPA = (0.03) (TEC)

Where:
TEC = Summation of the Total Estimated Cost of HMA accepted by statistical evaluation.

Example:

Description Quantity Unit Price Est. Cost
HMA Cl. ½ IN. PG_ (2,600 tons) ($70.00) = $182,000
HMA for Preleveling Cl. ½ IN. PG_ (1,500 tons) ($135.00) = N/A (commercial evaluation)
HMA Cl. ⅜ IN. PG_ (1,100tons) ($82.00) = N/A (nonstatistical evaluation)
Summation of Total Est. Costs (TEC) = $182,000
JMCPA = (0.03)($182,000)
JMCPA = $5,460

Use $5,500 for "Job Mix Compliance Price Adjustment"

When a project calls for paving with HMA, the item "Compaction Price Adjustment" (CPA) will be required, regardless of the tonnage, if the total compacted depth for a class of HMA placed in the traffic lanes is greater than 0.10 foot.

The price adjustment will be calculated using the following formula:

CPA = (0.02) (TWTEC)

Where:
TWTEC = Travel Way Total Estimated Cost of HMA with a total depth greater than 0.10 foot.

Note: If the same compaction effort is required on the shoulders, the shoulders will be included in the calculations for "Compaction Price Adjustment" (for example, where the shoulders are currently being constructed full depth because they will become a driving lane in the future or where shoulder driving is going to be allowed). There would also have to be a Special Provision written specifying that the same compaction effort is required on the shoulders as the traveled way.

Example:

HMA CL ½ IN. PG_:
Length: 500'
Width: 2 lanes @ 12' and 2 shoulders @ 10.0'
Depth: 1 lift @ 0.20' depth
Unit Price: $40/ton
Conversion factor: 2.05 t/cy

TWTEC = (500')(24')(0.20')(2.05t/cy)($40/ton)
$(27ft^3/cy)$

TWTEC = $7,288.89

HMA CL ½ IN. PG_:
Length: 300'
Width: 2 lanes @ 12' and 2 shoulders @ 4'
Depth: 1 lift @ 0.15' depth
Unit Price: $42/ton

TWTEC = (300')(24')(0.15')(2.05t/cy)($42/ton)
$(27ft^3/cy)$

TWTEC = $3,444.00

Travel Way Total Est. Cost
(TWTEC) = $10,732.89

CPA = (0.02)($10,732.89) = $214.66

Use $220 for "Compaction Price Adjustment"

700.06 Structures

(1) Retaining Walls

When a project contains standard retaining walls, as detailed in the *Standard Plans for Road, Bridge, and Municipal Construction (Standard Plans)*, the Contract Plans shall include:

- A plan and profile of the wall, with original and proposed ground profiles at the front and back faces of the wall.
- All existing utilities in the vicinity of the wall.
- Wall geometry.
- Right of way limits.

- Construction sequence and stage construction sequence requirements.
- Highest permissible elevation for foundation construction.
- Location, depth, and extent of unsuitable material.
- Quantities for the wall and backfill materials.
- Details of wall appurtenances such as traffic barriers; coping; wall face treatment and limits of treatment; drain outlets; and location of signs and lighting, including conduit locations.

In general, a site that will support a standard cantilever retaining wall will also support a proprietary retaining wall. If the region decides to provide preapproved proprietary retaining wall systems as an alternate, the HQ Materials Laboratory Foundation Engineer and the HQ Bridge and Structures Office Bridge Project Engineer need to be consulted on the selection of suitable wall systems for the conditions. In order to evaluate aesthetic considerations, a rough site plan shall be submitted to the HQ Bridge Project Engineer for review.

The region will be required to contact the suppliers of the selected retaining wall systems to confirm the adequacy of the systems for the given situation. The HQ Materials Laboratory Foundation Engineer is to be contacted to provide assistance in evaluating the systems for overall stability and to provide soil criteria for design.

The HQ Bridge and Structures Office will prepare the Special Provisions for preapproved proprietary retaining walls, including design criteria. The HQ Foundation Engineer will be consulted for establishing the criteria for design. The Special Provisions will require the proprietary wall manufacturer selected by the contractor to submit shop plans, design criteria, and calculations to the HQ Foundation Engineer for approval. The HQ Bridge and Structures Office will then review the design submitted by the preapproved proprietary wall manufacturer.

In addition, keep in mind that these retaining wall alternates may be selected by the contractor and that all of these alternates are proprietary. On all federal-aid projects, two alternates must be selected, or reasons for using fewer alternates must be submitted for approval to the Assistant State Design Engineer assigned to the region. Proprietary retaining wall systems are preapproved for certain heights. Walls that exceed the preapproved height will be considered special designs and each must be submitted to the HQ Bridge and Structures Office for review and approval.

700.07 Drainage Structures, Storm Sewers, Sanitary Sewers, Water Mains, and Conduits

Vacant

700.08 Miscellaneous Construction

(1) Temporary Erosion and Sediment Control Plans

The *Highway Runoff Manual* provides detailed information on Temporary Erosion and Sediment Control (TESC) planning. The goal of a TESC Plan is to prevent erosion damage to projects and sediment-laden runoff that can harm the environment and waters of the state. A TESC Plan shall describe the erosion risks associated with the project and list the best management practices (BMPs) selected to reduce or eliminate the identified risks. A BMP is a design, procedural, or physical practice that prevents erosion or traps sediment.

A TESC Plan must be prepared if a construction project adds or replaces (removal of existing road surface down to base course) 2,000 square feet or more of impervious surface or disturbs 7,000 square feet or more of soil. Projects that don't meet these thresholds must address erosion control, but a stand-alone TESC Plan is optional.

To be effective, the TESC Plan must be contractually enforceable. The tools available are Division 8-01 of the *Standard Specifications*, the *Standard Plans*, General Special Provisions (GSP), and Special Provisions. In addition to the plan sheets, the selected specifications must be included in the contract. The contractually enforceable tools contained in the plan shall address the direct details the contractor will be responsible for, such as items of work; types of materials; duration; maintenance and removal of items; and measurement and payment of nonstandard items, as applicable to the specific contract. The plan sheets or Special Provisions shall show or list the locations of the BMPs.

WSDOT staff are required to attend the Construction Site Erosion & Sediment Control Course before they prepare a TESC Plan. Multiple resources for plan preparation exist, including the *Highway Runoff Manual*, *Design Manual*, *Roadside Manual*, *Hydraulics Manual*, *Construction Site Erosion and Sediment Control Course Manual*, the *Standard Specifications* (Section 8-01), and the *Standard Plans*.

WSDOT has a TESC Planning Tool that helps designers create thorough and contractually enforceable TESC Plans. The designer reviews requirements, selects BMPs, and identifies contractual tools to ensure enforcement of TESC Plans. The TESC Planning Tool helps ensure consistency in plan format as it automatically organizes and writes the TESC Plan narrative. It also greatly accelerates the process for TESC Plan review. A brief training is recommended prior to use and is available through ATMS (course code CAY).

A TESC template is available for consultant use and those who don't have access to the TESC Planning Tool. The template provides step-by-step guidance on preparing the narrative and is available online under the Guidance Materials heading at:
www.wsdot.wa.gov/environment/waterquality/erosioncontrol.htm

Other resources include Region Water Quality/Hydraulics Office staff, Environmental Office staff, and the Statewide Erosion Control Coordinator.

Some regions require that TESC Plans prepared by the project office be routed through the Region Water Quality/Hydraulics Office or Environmental Office for review. Once complete, the TESC Plan is incorporated into the contract documents.

(2) Roadside Restoration and Considerations

The roadside blends the highway facility into the natural and built environment and provides operational, visual, and environmental functions. For all projects requiring work outside the shoulders, it is important that the designer consider the various functions and how the elements that meet these functions relate to each other. Contact the Region Landscape Architect or HQ Landscape Architect (for regions without one) to assist in meeting the functions and to determine ways to minimize and mitigate impacts to the roadside.

Earthwork can spread noxious and invasive species of weeds if these exist in the project vicinity. Long-term weed control issues within the roadside should be discussed with the area maintenance staff. If there are areas of noxious weed stands within the project limits, the designer should arrange to have WSDOT maintenance forces treat them prior to earth-moving activities, or the project should include weed

control prior to this work. For projects that last through multiple seasons, weed control during the duration of the project should be considered for all areas within the right of way. If the project needs weed control (outside of planting areas), the separate weed control standard pay item must be included.

It is important to preserve existing desirable vegetation and to minimize disturbance and compaction of existing soils as much as possible. This will minimize water runoff, reduce erosion during the project, and reduce impacts that require restoration and mitigation.

The *Roadside Classification Plan* outlines requirements, based on project type, for revegetation, permanent erosion control, irrigation, and landscape planting. The Landscape Architect can assist the designer in fulfilling these requirements. The Roadside Restoration Worksheet should be referenced to determine the impacts and restoration needs that were determined for the project during the scoping process.

Consider the various elements of the project that are viewed by the highway user and from adjacent areas. Elements such as lighting standards, sign bridge types, traffic barriers, bridge and wall design, textures and colors, contour grading, stormwater treatment and storage facilities, and vegetation blend the project into the context of the environment and provide a unified visual experience through the corridor. Consider Context Sensitive design solutions (see *Design Manual* Section 305.7). The Landscape Architect can provide expertise to identify and blend visual elements.

Pedestrian facilities must be designed to be accessible by incorporating Americans with Disabilities Act of 1990 (ADA) standards.

(3) Earthwork for Guardrail Terminals

It is important that the designer include the earthwork quantities required to construct widening needed for proper installation of guardrail terminals. It is easy to assume that these seemingly minor quantities will have little, if any, impact on the final quantities, so they are often left out of the final quantities.

There have been many projects where the earthwork quantities overran, and the reason for the overrun was because the designer had not included the required earthwork quantities for the construction of guardrail widening areas. As minor as these quantities may seem at the time of design, they can have a big impact on the construction project if not accounted for in the contract.

If, after the final guardrail locations are set, a final earthwork run is not made to account for the earthwork quantity in the flare construction, the designer needs to add the quantity to account for these spot widenings.

If the project is basically a paver, with isolated areas of widening for guardrail or slope flattening, and profiles are not required for the paving, the earthwork quantities are to be presented in tabular form for each area or in some other logical breakout.

700.09 Other Contract Considerations

(1) Combining Bid Items

In an effort to streamline projects to make them easier for WSDOT to manage, as well as easier for the contractors to bid, some thought should be given on each project to doing similar, or associated, work under a single bid item instead of having two or more items under which to work.

The lump sum item "Removal of Structure and Obstruction" has always been made up of a combination of various removal items, and this will not change. This item is not governed by an estimated cost limit for work that can be included. As long as each different removal item is precisely described as to the actual work to be performed, the locations of the work, and the estimated quantity of work, there are no limits to the removal work that can be combined in the single "Removal of Structure and Obstruction" item. (See 700.09(4) for additional discussion on lump sum items.)

Work that is measurable—estimated cost of $5,000 or greater—will be a separate bid item. However, if the work is minor—estimated cost of less than $5,000— and there is a logical item of work with which to associate the minor work, the items may be combined and the cost of the minor work included in the cost of the associated work. A nonstandard bid item is created to capture all of the work involved when combining bid items.

The designer must remember that if items of work are combined, additional information will be required to describe the work involved, to clearly identify what items are being combined, and that the quantities provided for the combined items need be more accurately calculated.

For example, do not combine the cost of structure excavation with the cost of the pipe without giving a reasonably accurate estimated quantity for the structure excavation required for each pipe. Giving the total estimated quantity for the structure excavation does not provide the contractor a clear enough picture of the work required to make a responsible bid.

Accuracy of estimating quantities is also important because it can be difficult to address overruns, underruns, or added work when only one portion of the item combination is involved in the overrun or underrun, or work is added to only one of the items of work.

Care must be taken to ensure that by combining the items of work, additional problems will not be encountered during construction because of changes in conditions or work methods.

Items being combined shall relate to each other well and the quantities shall be dependent on each other, so if one changes in the field, the associated quantities would be affected uniformly.

(a) **Example of a Good Combination**

If the project had a few locations where culverts were to be installed, it would be acceptable to include the cost of structure excavation with the per-foot price for the size and type of culvert pipes. This is a good combination because the items are closely associated and the quantities are dependent on one another. The quantity for structure excavation is dependent on the amount of pipe installed and will increase or decrease as the length of pipe actually installed increases or decreases.

- Even though this combination of items is logical, it is imperative that the quantities for the structure excavation be calculated to a higher degree of accuracy then if the two items were separate.
- This higher accuracy of the structure excavation quantity is necessary because once the quantity is calculated for the planned length of pipe, that relationship of cubic foot of structure excavation per foot of pipe never

changes. If the calculated structure excavation quantity is too high, the contracting agency is overpaying for the work actually performed. If the calculated structure excavation quantity is too low, the contractor is not being fairly compensated for the work performed. In either case, there is no way to make adjustments to the structure excavation.

- If there was a separate pay item for the structure excavation, and the quantity for the item was miscalculated, the contractor will be paid for the actual work performed, so the estimated quantity is a basis for the contractor's bid only.
- The structure excavation quantity will appear on the Structure Note sheet as "informational only" for each associated structure code.

(b) **Example of a Bad Combination**

Do not combine clearing and grubbing with embankment compaction, even though the plan is to clear and grub only where the embankments are to be constructed. The Special Provisions will have to specify the areas and approximate acres to be cleared and grubbed so the contractor can include that cost with the cubic yard price for embankment compaction. This is a bad combination of items, because the two items are not closely associated with each other. The quantity for either of these items could be increased or decreased without impacting the quantity of the other item.

- If the items above are combined under a cubic yard pay item, and during construction it is determined that additional slope flattening is necessary within the original clearing and grubbing limits, it would be difficult to determine and justify an increase. The difficulty lies in the fact that clearing and grubbing is generally around $6,000 per acre, whereas embankment compaction is around $2.00 per cubic yard. In this case, the contractor would be receiving a premium price for the additional embankment.
- If the items above are combined under a per acre pay item, and during construction it is determined that additional clearing, grubbing, and embankment compaction is necessary, again, it would be difficult to determine and justify an increase. The problem is, how is a square acre converted to a cubic measurement?

(c) **Incorporating Combined Items**

To maintain consistency in the combining of items statewide, the HQ Plans Liaison Engineer for the region is to be consulted in advance of incorporating combined items into projects. In addition to consistency, this will provide a single office to monitor which items are routinely being combined and which item combinations work and which do not, allowing for responsible decisions in the future.

Note: Two items that cannot, by law, be combined with any other item of work are "Shoring or Extra Excavation Class A" and "Shoring or Extra Excavation Class B."

(2) Equipment Acquisition Through Construction Contracts

The practice of WSDOT acquiring, through a construction contract, items that would normally be acquired or purchased through the equipment fund is to be avoided. This practice circumvents the state's procedures and purchasing rules.

Specific examples of these items are: survey equipment, computers and other IT equipment, vehicles, maintenance equipment, radios, workboats, and truck-mounted impact attenuators.

(3) Geotechnical Project Documentation

(a) The Region Project Development Office or Terminal Engineering Department for WSF is responsible for notifying the HQ Geotechnical Division at least 12 to 14 weeks in advance of the Ad or Shelf Date, when the final project geotechnical documentation is due for each pertinent project.

(b) When a PS&E document is near completion, all of the geotechnical design memoranda and materials source reports are compiled to form the Final Geotechnical Project Documentation, to be published for the use of prospective bidders.

(c) The Region Project Development Office or Terminal Engineering Department for the Washington State Ferries (WSF) will identify who has been designated to receive, handle, and continue the publication process of the report.

(d) It is desirable that the final geotechnical documentation be available for printing 10 weeks prior to the Ad or Shelf Date; however, it absolutely must be available no later than two Fridays prior to the Ad or Shelf Date.

(e) When transmitting the final project geotechnical documentation, the HQ Geotechnical Division will explicitly identify the geotechnical documentation as **final** and camera-ready. Likewise, the region materials section will concurrently send a camera-ready **final** copy of region-generated reports, to be included as part of the geotechnical documentation for the project.

(f) For Headquarters Ad and Award projects, when the region has received the report, the Region Project Development Office sends the complete package to the HQ Printing Services Office for final publication and to be made available to prospective bidders for purchasing. For WSF projects, the WSF Contracts/Legal Services Office is responsible for copying and making the report available to prospective bidders.

(g) The HQ Contract Ad and Award Office will issue a notice indicating the availability of the geotechnical documentation to bidders.

(h) In addition, some geotechnical information shall be included as part of the contract. It will generally consist of the final project boring logs and/or a Summary of Geotechnical Conditions when applicable. Both of these items are provided by the HQ Geotechnical Division.

(4) Items a Designer "Might" Need

The designer is advised to avoid including items in the project they think "might" be needed. This is particularly important for items such as borrow or excavation below grade, because the contractor bids, at a high price, the small quantity shown, and then finds a way to use a considerable quantity of the item on the project.

If it is unknown whether or not the item is required, it is best to leave it out of the project and let the Construction Office add the item by change order if necessary. History shows that this is the easiest, most cost-effective way of handling these items.

There may be times when it will be appropriate to include an item that might be needed. In these rare cases, it should be included as a force account item, so the Engineer has complete control of the work.

(5) Paths and Trails

WSDOT tracks expenditures for pedestrian and bicycle facility improvements so this information can be reported to the Legislature and the public, per RCW 47.30. The information is also used to measure the performance of WSDOT's transportation system.

Features that are specifically for pedestrian and/or bicycle facilities need to be included in the paths and trails calculations. Overlaying an existing shoulder with HMA or bituminous surface treatment (BST) does not constitute the need for paths and trails calculations. Widening of a shoulder(s) that is part of a larger roadway-widening project is not to be included in the paths and trails calculations.

The following are example types of work that are to be included in the paths and trails calculations. (See the *Design Manual* for definitions of terminology and additional information.)

- Shared-use path
- Structures (specifically for nonmotorized use)
- Sidewalk
- Bike lane
- New curb ramp
- Curb extension
- Pedestrian refuge island
- Buffer strip (only a planter strip that is a minimum of 3 feet wide between the sidewalk and curb can be included)

Following MUTCD guidelines, signing and pavement markings associated with pedestrian and bicycle facilities may include:

- Crosswalks
- School crossings
- In-pavement flashing warning devices
- Preferential lane symbols and signing
- Pedestrian signals/detectors
- Bicycle-specific signals/detectors
- Pedestrian-scale lighting
- Bicycle facilities lighting

For these types of features, the paths and trails calculations shall include the entire cost to complete the work of each feature.

Constructing a dedicated bicycle or pedestrian facility is always preferable to widening shoulders, especially in urban or urbanizing areas. However, paths and trails calculations for bicycle and pedestrian facility improvements shall be calculated for roadway shoulders when all of the following conditions are met:

- The route is identified in a local, regional, or state plan as a priority bicycle connection.
- The widening of a shoulder is a stand-alone project to benefit bicycling and walking and is not part of a larger roadway-widening project or done to achieve other goals.
- The existing shoulder is widened to at least the minimum widths outlined in the *Design Manual* for accommodating bicyclists and pedestrians.
- The paths and trails calculations for this shoulder-widening work shall be 50% of all the costs included to complete the shoulder widening.

If further clarification is needed on what should or should not be included in the paths and trails calculations, contact the HQ Highways and Local Programs Office at 360-705-7372.

(6) Salvaged Materials

Salvaged materials are items that do not become the contractor's property when removed as part of the contract. This material is to be used in future projects. For federal-aid projects, salvaged credits are governed by state procedures. In accordance with FHWA Contract Administration Core Curriculum guidance, WSDOT has established the following procedure on salvaged material.

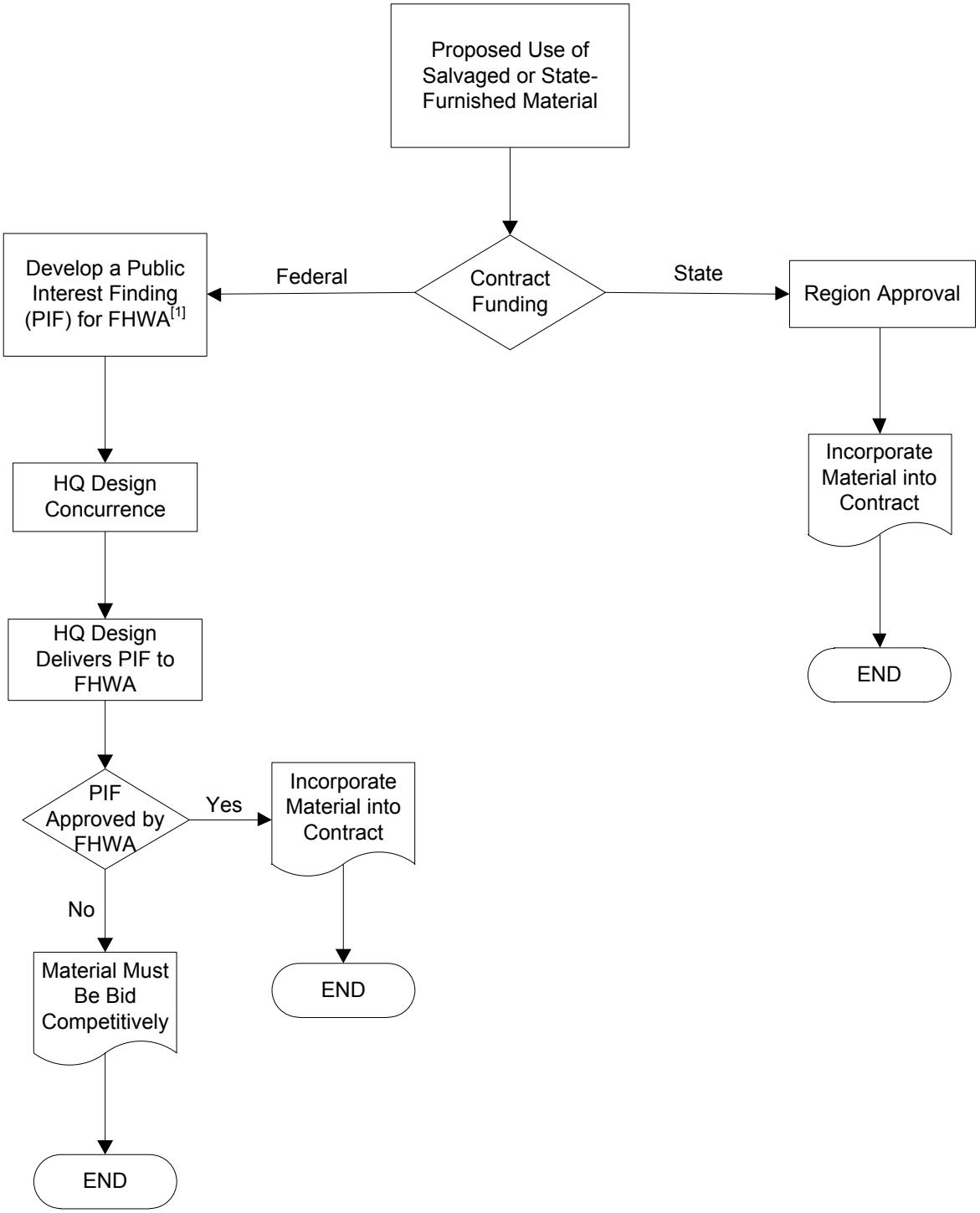
WSDOT procedure does not require a salvage credit on state-funded projects. Therefore, a salvage credit on a federal-aid-funded project is also not required.

(a) Use of Salvaged or State-Furnished Material

The Use of Salvaged or State-Furnished Material flow chart (Figure 700-1) details the procedures to follow when these types of materials are proposed to be incorporated in a contract.

The use of material acquired in other than competitive bidding may be waived under specific conditions if it is found to be in the public's interest. On federally funded projects, a Public Interest Finding (PIF) is required to be approved by the FHWA. The PIF will consist of a written document outlining the basis for the request and supporting documentation such as cost/benefit analysis, discussion of compatibility, logistical concerns, etc. For details on what is required for a PIF, refer to 23 USC 112 and 23 CFR 635.

For state-funded projects, the use of salvaged or state-furnished materials must be approved by the Region Administrator or to the delegated regional authority.



Notes:

[1] Refer to:

- 23 CFR 635.407, Use of Materials Made Available by Public Agency
- *Design Manual*, Exhibit 300-4

Use of Salvaged or State-Furnished Material

Figure 700-1

(7) Specialing Out Right of Way Parcels

It may be necessary to identify right of way parcels that are unavailable to the contractor for construction at the time the contract is awarded.

The Special Provisions shall be specific regarding the location of these parcels and the estimated dates of availability to the contractor. Region Real Estate Services can provide a reasonable availability date to go in the Special Provisions. There is no problem if the property becomes available early, but there can be major problems if the property is not available by the date promised.

Right of way parcels that are "specialed out" must also be indicated on the Right of Way or Alignment/Right of Way Plans by drawing in the appropriate property lines and by cross-hachuring the parcels. The plans shall indicate that the cross-hachured parcels are unavailable and there will be a note referencing the Special Provisions.

When right of way is being specialed out, the order of work has to be examined to ensure the project sequencing is not adversely affected because portions of the right of way are not available for immediate use.

(8) Standard Items

When a standard item exists, it should be used. The Standard Bid Item Table is not a complete listing of standard items. It is a list of the bid items being tracked in the Unit Bid Analysis (UBA) system. Code numbers, which are referred to as Standard Item Numbers, track them.

Standard items are those items that appear in the payment statements in the *Standard Specifications*. Many of these payment statements, like the following, are written with blanks:

- "HMA for Preleveling Cl. ____ PG ____," per ton.
- "Catch Basin Type ____," per each.
- "Manhole Additional Height ____ In. Diam. Type ____," per foot.

If the blanks are filled in with the expected information and the information in the *Standard Specifications* applies, they are standard items even though they may be a size, type, or class not shown in the Standard Bid Item Table.

Minor revisions that have little or no impact on the cost can be made to the material or construction requirements in the *Standard Specifications*, and they can remain standard items. Care must be taken, however, not to mislead the contractor by making major revisions that could substantially affect the cost of the item and calling it the standard item. In these cases, it is best to develop a nonstandard item.

(9) State Force Work or State-Furnished Materials

The State Force Work referenced is any and all state force labor, state-furnished materials, and/or state-furnished equipment to be paid utilizing construction dollars, unless specifically excluded as mentioned below (see Figure 700-2).

The designer shall provide written justification for all state-furnished materials and all State Force Work to be performed on all projects, in accordance with RCW 47.28.030 and RCW 47.28.035.

(a) **RCW 47.28.030**

The complete RCW reads as follows:

Contracts – State forces – Monetary limits – Small businesses, minority, and women contractors – Rules.

A state highway shall be constructed, altered, repaired, or improved, and improvements located on property acquired for right of way purposes may be repaired or renovated pending the use of such right of way for highway purposes, by contract or state forces.

The work or portions thereof may be done by state forces when the estimated costs thereof is [are] less than fifty thousand dollars and effective July 1, 2005, sixty thousand dollars: PROVIDED, That when delay of performance of such work would jeopardize a state highway or constitute a danger to the traveling public, the work may be done by state forces when the estimated cost thereof is less than eighty thousand dollars and effective July 1, 2005, one hundred thousand dollars.

When the department of transportation determines to do the work by state forces, it shall enter a statement upon its records to that effect, stating the reasons therefore.

To enable a larger number of small businesses, and minority, and women contractors to effectively compete for department of transportation contracts, the department may adopt rules providing for bids and award of contracts for the performance of work, or furnishing equipment, materials, supplies, or operating services whenever any work is to be performed and the engineer's estimate indicates the cost of the work would not exceed eighty thousand dollars and effective July 1, 2005, one hundred thousand dollars.

The rules adopted under this section:

(1) Shall provide for competitive bids to the extent that competitive sources are available except when delay of performance would jeopardize life or property or inconvenience the traveling public; and

(2) Need not require the furnishing of a bid deposit nor a performance bond, but if a performance bond is not required then progress payments to the contractor may be required to be made based on submittal of paid invoices to substantiate proof that disbursements have been made to laborers, material men, mechanics, and subcontractors from the previous partial payment; and

(3) May establish prequalification standards and procedures as an alternative to those set forth in RCW 47.28.070, but the prequalification standards and procedures under RCW 47.28.070 shall always be sufficient.

The department of transportation shall comply with such goals and rules as may be adopted by the office of minority and women's business enterprises to implement RCW 39.19 with respect to contracts entered into under this chapter.

The department may adopt such rules as may be necessary to comply with the rules adopted by the office of minority and women's business enterprises under RCW 39.19.

[1999 c 15 § 1; 1984 c 194 § 1; 1983 c 120 § 15; 1977 ex.s. c 225 § 3; 1973 c 116 § 1; 1971 ex.s. c 78 § 1; 1969 ex.s. c 180 § 2; 1967 ex.s. c 145 § 40; 1961 c 233 § 1; 1961 c 13 § 47.28.030.

Prior: 1953 c 29 § 1; 1949 c 70 § 1, part; 1943 c 132 § 1, part; 1937 c 53 § 41, part; Rem. Supp. 1949 § 6400-41, part.]

(b) **RCW 47.28.035**

The complete RCW reads as follows:

Cost of project, defined.

The cost of any project for the purposes of RCW 47.28.030 shall be the aggregate of all amounts to be paid for labor, material, and equipment on one continuous or interrelated project where work is to be performed simultaneously. The department shall not permit the construction of any project by state forces by dividing a project into units of work or classes of work to give the appearance of compliance with RCW 47.28.030.

[1984 c 194 § 2.]

(c) **Justifications**

If the project is new/reconstruction on the Interstate, the justification for state-furnished materials and for State Force Work requires FHWA approval.

RCW 47.28.030 requires that WSDOT have documentation on file for all State Force Work/Furnished Materials. The justification and estimate for work to be done by state forces and state-furnished materials is to be processed per region policy in sufficient time to allow for review and approval prior to advertising of the project. When FHWA approval is required, the justification must also include a request for federal funding participation.

The justification for both state-furnished materials and State Force Work must show that it is economically cost-effective to provide the materials or to perform the work with state forces. It does not matter how or when the state-furnished material was purchased or whether it was purchased through competitive bidding or not, the cost of the state-furnished material is to be incorporated into the State Force Work/Furnished Materials total costs, and the limitations per RCW 47.28.030 apply. Once an item is purchased and furnished to another contract, that item becomes state-furnished material. Refer to Figure 700-2 and the *EBASE Users Guide* for guidelines when engineering and contingencies are used (when other state agencies do the State Force Work) or when engineering and contingencies are not used (when WSDOT state forces do the work) in regard to State Force Work and for state-furnished materials.

As of July 1, 2005, the maximum total dollar value of work done by state forces per construction project, including labor, materials, and equipment, is $60,000 or up to $100,000 if it is an emergency, as stated in RCW 47.28.030. An increase in the dollar amounts in the RCW must go before the Legislature; currently, there are no additional increases built into the law.

(d) **Blanket Approval Items**

There are a few items of work that have received a blanket approval to be performed by state forces and receive FHWA funding participation. They are: striping, pavement marking, second-stage fertilizing, and one-way piloted traffic control. With blanket approval items, WSDOT must still have documentation on file, and the dollar limitations also apply to this work.

(e) **Exceptions**

When the state provides materials and/or equipment and there is NO state labor performed by state forces on the project, the dollar limitation per RCW 47.28.030 does not apply. For example, if WSDOT provides a $90,000 sign bridge, as long as there is **no** state force labor, this dollar amount can be approved. If there is **any** state force labor (even for unrelated work such as removal of silt fence) on the project that is going to be a below-the-line item, then the aggregate total of materials and labor would exceed the $60,000 per RCW 47.28.030 and therefore cannot be approved.

Work performed off the state roadway right of way **may not** be subject to RCW 47.28.030; therefore, no limit on state-furnished materials or state force labor would apply. If work is done outside the WSDOT transportation corridor (state right of way, fence line to fence line), and state force thresholds in RCW 47.28 do not apply (as with wetland mitigation sites, sundry sites, and other capital facilities), then RCW 39.04 applies. This applies only to those areas outside of and unattached to existing state highway right of way.

Work that is **not** to be considered State Force Work includes: inspection of any type; materials testing; surveying; monitoring; public relations work; or any kind of investigation or research. If state forces do these types of work, they are to be included in the engineering and contingencies. If the cost of this work is substantial, it can be used as justification to increase the engineering and contingency percentage to offset the costs.

- Inspection is defined as work performed to ensure material or contractor installations meet the specifications outlined in the contract **after** the contract has been awarded. Inspection **does not** include work performed to correct the deficiency or failure to meet specifications.
- Surveying is part of the inspection requirements. It shall be considered as construction engineering and is not subject to state force thresholds.
- Material testing is defined as work performed prior to contract award, or prior to the material being delivered to the contractor, to ensure the material meets the specifications outlined in the contract. Material testing includes diagnostic testing and/or modifications to the material or equipment to ensure compatibility and interoperability with the existing infrastructure. For example, when electronic equipment is procured, materials testing would include assembling the equipment into a system and modifying software or hardware components as necessary to ensure the system operates as specified and is compatible with existing electronic equipment and/or software (see Figure 700-2, State Force Work/Materials).

(f) **Questions Asked by WSDOT and Answered by the Attorney General's Office (AGO)**

1. **WSDOT:** If work is not related, but on the same project, does the RCW limit apply to each unrelated item of State Force Work or is all the unrelated State Force Work added together for the aggregate total for the project?

   AGO: All State Force Work activities (labor, equipment, and materials), related or not, are included in the aggregate total and are subject to state force thresholds.

2. **WSDOT:** Has the Legislature looked at the excessive increase in costs and considered raising the dollar limitation in the RCW accordingly?

AGO: In 1999 the Legislature was approached about raising the limit for State Force Work to $250,000. Under this request, the limit was raised by $10,000 only, with a few step raises in the RCW in later years. The state Legislature would prefer work to be contracted out and the dollar limit on State Force Work kept low.

3. **WSDOT:** How does the RCW apply to contractually purchased materials used by state maintenance labor and equipment—for example, on BST projects where the aggregate is purchased through contract and stockpiled, State Force Work is requested for the labor and equipment to place the BST, and the labor and equipment is less than the dollar limitation?

   AGO: If Maintenance purchases materials (such as crushed rock), regardless of whether this material is purchase through a competitive bidding process or not, it is considered to be from a supplier and is not considered a WSDOT construction contract. Therefore, the material is included in the aggregate total of labor, equipment, and materials and is subject to state force cost thresholds.

4. **WSDOT:** What determines a contractor versus a supplier? If we have a competitively bid contract for rock chips for chip seal jobs that we can use whenever we need to in a one-year or two-year period, is this a contractor or a supplier?

   AGO: A supplier.

5. **WSDOT:** If there is no state labor, does the RCW dollar limit apply?

   AGO: If there is no state labor in the project and only state-furnished materials are being purchased, the dollar limitation per RCW 47.28.030 does not apply. If there is any State Force Work labor on the project, whether or not it is relevant to the materials acquisition, then the RCW 47.28.030 dollar limitations apply to the aggregate total.

6. **WSDOT:** If there are overruns during State Force Work on labor, material, or equipment costs that are covered under the State Force Work request and that exceed the RCW dollar limitation, is this a violation of the law? Should this be documented and, if so, how?

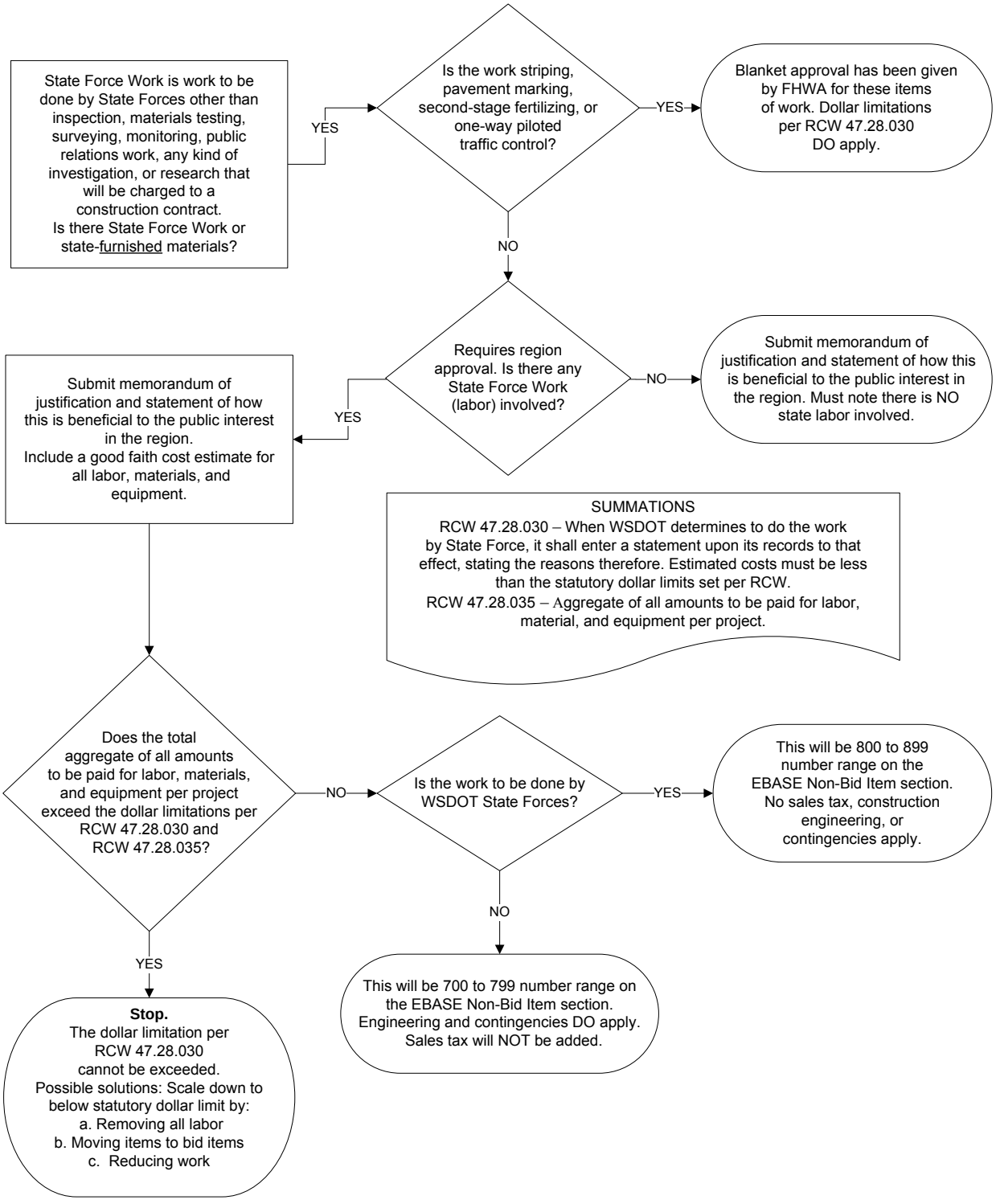
   AGO: A good faith effort is required to justify and document the state force request during the project development phase. If, during construction, the actual costs exceed the estimated costs, this is considered an incremental increase. If this happens on a consistent basis, the original estimate will not be considered a good faith effort and the law has not been followed.

7. **WSDOT:** Who has the authority to authorize State Force Work in excess of the monetary limit set in RCW 47.28?

   AGO: No one outside the Legislature has the authority to approve State Force Work in excess of the monetary limit set in RCW 47.28.030. Exceeding the RCW is a violation of the law. **The law would have to be changed by the Legislature to increase the monetary limit in RCW 47.28**.

8. **WSDOT:** When does State Force Work have to be documented and kept on file?

   AGO: Per the law, all State Force Work must have documentation on file justifying the work. RCW 47.28.030 states, "When the department of transportation determines to do the work by state forces, it shall enter a statement upon its records to that effect, stating the reasons therefore" (see Figure 700-2, State Force Work/Materials).



State Force Work/Materials

Figure 700-2

(10) Strip Maps

Strip maps may be used on projects such as overlays, fog seal, BST, stockpiling, signing, safety, and similar projects when a great deal of detail is not required.

Many times a strip map can be used for a series of plans within a set of plans, such as for the signing series, if the signing is simple destination-type signing and requires no real detail. In most cases, by simply showing the construction centerline with stationing and the required signing information, it is possible to stack the information on the sheet such that twice the information can be displayed on each sheet. Keep in mind that most of the information shown on strip maps is not really alignment-dependent; that is, a curve in the highway is not going to affect the showing of a sign at the correct station, so the centerline can appear as a straight line on the strip map.

The use of strip maps when feasible is not only an option, but is also a recommended procedure to help reduce the total number of plan sheets in the project.

The use of photographic strip maps is allowed if the work can be shown adequately and if a clear copy can be ensured.

(10) Truck Measurement of Earthwork Quantities

Truck measurement can be utilized on projects with 5,000 cubic yards or less of embankment to be constructed or when the project consists of numerous small embankment areas where cross-sectioning is not practical.

(12) Truck Weigh Stations

The components of a truck weigh station for which federal funds can be used are:

- Additional right of way.
- The construction of access lanes and vehicle standing and storage areas.
- The illumination of access lanes and vehicle standing and storage areas.

The construction of the scale house and its service facilities, scale pit, and scale are not eligible for federal-aid participation.

For additional information on truck weigh stations, see the *Design Manual*.

(13) Warranties and Guarantees

WSDOT may choose to include warranty clauses in federal-aid highway construction contracts as specified in Code of Federal Regulations (CFR), Title 23, Volume 1 (revised April 1, 2001), Part 635, under Subpart D – General Material Requirements Section 635.413, Guaranty and warranty clauses. An excerpt from the CFR text reads as follows:

The STD may include warranty provisions in National Highway System (NHS) construction contracts in accordance with the following:

(a) Warranty provisions shall be for a specific construction product or feature. Items of maintenance not eligible for Federal participation shall not be covered.

(b) All warranty requirements and subsequent revisions shall be submitted to the Division Administrator for advance approval.

(c) No warranty requirement shall be approved which, in the judgment of the Division Administrator, may place an undue obligation on the contractor for items over which the contractor has no control.

(d) A STD may follow its own procedures regarding the inclusion of warranty provisions in non-NHS Federal-aid contracts. There may be occasions when the regions have the need to include warranty and/or guarantee clauses in state-funded contracts. The region will notify the Construction Materials Engineer at the HQ Materials Laboratory and request concurrence with the specification prior to including the Special Provision in the contract documents.

The contractor is required to pass along to WSDOT all manufacturers' normal guarantees and warranties for products and equipment installed on the project.

(14) Washington State Patrol Work Zone Enforcement and Assistance

If Washington State Patrol (WSP) use is warranted on a project, an estimated dollar amount shall be included in the project estimate as a below-the-line item. WSP enforcement duties will not be identified in the contact. If WSP assistance is to be used as a required element of the traffic control plans, it should be identified on the plans and provided as a resource to the contractor with a General Special Provision.

Refer to the *Traffic Manual,* Appendix 5.A, for more information on when and how to include WSP in a project.

800.01 Introduction

A detailed cost estimate shall be prepared for a project in order to obligate funds for the construction activity and to determine a fair price for the work and a basis for evaluating contractors' bids. Estimates are comprised of various bid items arranged in a logical order, with a variety of payment options (see Division 7 for special considerations). A complete estimate lists all work to be done by the contractor, showing quantity, unit of measure, unit cost, and total cost for each item. Cost estimates are prepared using one of two basic approaches, or a combination thereof, and each method has advantages and limitations. Bid-based estimating is usually easier and faster. Items without an adequate historical base must be estimated using the cost-based method. (See the *Cost Estimating Manual for WSDOT Projects* for more information.)

(1) Bid-Based Estimating

Bid-based estimating utilizes historical bid prices. The procedures are typically based on the concept of comparable work—that is, choosing a price by finding similar projects in the same locality with a similar quantity as the item involved. The Washington State Department of Transportation (WSDOT) maintains historical bid data broken down by bid item, region, contract number, plan quantity, and the bid prices of the three lowest bidders. Bid Tabs Professional works with the Estimate Bid Analysis System (EBASE) and gives the designer the ability to use current bid history to produce and update project estimates. Numerous analysis scenarios can be generated. For information and a User's Guide for this program, go to:
www.wsdot.wa.gov/design/projectdev/

(2) Cost-Based Estimating

Cost-based (scratch) estimating utilizes labor, equipment, and material cost information. Cost-based estimating directly incorporates cost and productivity factors relevant to the project into the estimation process.

Note: Other than the estimate range included in the advertisement for bids, estimate information is to be kept confidential until bids have been received and opened.

800.02 Estimate Content

The contract estimate shall include the following:

1. A list of all bid items in correct order, showing contract item number, standard bid item number (if applicable), unit of measurement, estimated unit price, estimated quantity, and total estimated cost for each. The total amount of all items is designated the "Contract Total."
2. Washington State sales tax (if applicable).
3. Work by others at WSDOT expense.

4. Construction engineering costs.
5. Contingency costs.
6. Work by WSDOT at WSDOT expense – State Force Work (see Division 7).
7. The value of materials furnished by WSDOT (see Division 7).
8. Calculated amortization of materials sites and stockpile sites, even though the costs may not be known at the time the estimate is prepared.
9. Estimated amount for royalty payments.

800.03 Estimate Preparation

The region enters contract estimates into EBASE. A job number unique to each project identifies the estimate for each contract. The same PS&E job number used to identify the Contract Provisions should be used to identify the estimate.

The following elements should be considered in preparation of the estimate, as appropriate:

1. Previous unit bid prices. To develop base prices for estimating the value of the work, upcoming projects should be matched to the most recent projects for which bids have been received, according to type, size, and location.
2. An adjustment to the base prices based upon the ages, quantities, and individual conditions of the similar projects.
3. Inflation rates may be considered to update past information, but past inflation rates should not be projected into the future unless based on circumstances that can reasonably be expected to occur, such as anticipated changes in the cost of labor, equipment, and materials.
4. Surveys of local market prices for labor, equipment, and materials for unusual items of work or those with fluctuating prices.

For complete instructions on developing estimates in the EBASE system, and for the Mobilization and Highway Preservation and Improvement tables, see the EBASE User's Guide. It may be accessed directly from EBASE by selecting "Help" or through the following website: www.wsdot.wa.gov/design/projectdev/

(1) Mobilization

Mobilization is a contract pay item used to cover a contractor's preconstruction expenses and the costs of preparatory work and operations. Since there is no clear list defining this work effort, and since contractors have the ability to adjust their bids as needed to cover these expenses, there are no true rules as to what percentage should be used per contract. Therefore, when starting an estimate for a project, enter 10% as a beginning point for mobilization and adjust it up or down before final PS&E submittal. To calculate the appropriate mobilization percentage, see the mobilization table in the EBASE manual:
www.wsdot.wa.gov/design/projectdev/engineeringapplications/adready.htm

When determining mobilization for a project, consideration should be given to location, complexity, the need for specialized equipment, the type of work, and the working season if it extends over more than one construction season. Projects that would probably require a higher mobilization percentage include rural vs. urban; projects with multiple work sites; projects with numerous preparatory removal items; projects with large quantities of excavation; or projects extending over two seasons where the contractor would be expected to shut down operations and move out.

(2) Engineering and Contingency Percentages

"Contingency percentages" are set up to handle unforeseen changes in a project during construction, including additional work, quantity over-runs, and additional items. Contingencies are currently limited to 4% of the total contract amount for all WSDOT contracts. For local agency projects administered by WSDOT off the state highway system, no contingency percentage will be set up.

"Engineering percentages" are the monies set up in each contract for WSDOT's operating costs to administer that project. These percentages will vary by type of work and total dollar amount of the contract. On average, the department has been running around 15% engineering on all projects in the Improvement and Preservation programs. Therefore, when starting an estimate for a project, enter 15% as a beginning point for construction engineering and adjust it up or down before final PS&E submittal. To choose the appropriate engineering percentage, see the engineering tables in the EBASE manual.

The Region Program Development/Management staff can, based on appropriate justification, approve any changes in the construction engineering percentages for a project different from the rates listed.

Copies of the approved justification letter shall be submitted with the final PS&E submittal for advertisement.

Vacant – See Division 6 and the following website:

http://www.wsdot.wa.gov/publications/fulltext/projectdev/manuals/ps&emanual.pdf

Appendix 5 Addendum Preparation

(1) General

When addenda are needed, they should be numbered chronologically as they are compiled and sent to bidders/planholders so the number of addenda sent can be tracked. Designers need to work closely with their Region Plans Office in preparing addenda. Great care should be used to ensure all plan sheets affected by an addendum are identified and included in the addendum; one minor change can have a ripple effect on other sheets.

Contract specification revisions or new contract specifications, created while a contract is on Ad, shall be stamped by the engineer directly responsible for the work. Those stamped specifications shall be filed in the Project File for the project. The addendum, which transmits revised or new specifications, does not need to show the stamp, provided the stamped originals are in the Project File. Plan revisions or new plans (in accordance with Division 4) sent out by an addendum need to be stamped by the engineer, and copies of those stamped plans will be sent out with the addendum.

(2) Notes to the Designer

The following paragraph shall to be placed on all addenda:

> *Bidders shall furnish the Secretary of Transportation with evidence of the receipt of this addendum. This addendum will be incorporated in the contract when awarded and formally executed.*

The following paragraph should be placed on an addendum when changes are made to the Proposal and the addendum does not transmit a new Proposal as an attachment to the bidders:

> *Bidders are instructed to revise pages ___ and ___ of the Proposal as revised pages have not been prepared for attachment to this addendum. If the bidder fails to make these corrections on the Proposal, the items will be corrected by the Department.*

The following example shows how to notify the bidder that the contract wage rates are to be deleted and replaced in an addendum:

> *Wage Rates:*
>
> *Federal Wage Determination WA_____, Modification___, page___, is deleted and replaced with WA02000___, Modification____, page___.*

This statement shows how the wage rate addendum would be worded when the wage rate determination is an attachment:

> *Attachment:*
>
> *Federal Wage Determination WA_____, Modification___, page___. (Rev. February___, 2002)*

(3) Guidelines for Preparing Addendum Plan Sheets

(a) **Deletions**

The item, line, figure, or detail to be deleted is completely removed from the sheet. The area where the deletion occurred shall NOT contain any addendum clouds. The deletion is to be noted in the revision block and shall be shaded. When a plan sheet requires a P.E.'s stamp, the revision block date is to be dated on or before the date it is signed by the P.E. authorizing the change.

On Summary of Quantity, Qtabs, Structure Notes, and Sign Specification sheets, delete the line item(s), but leave the row or column in place as a blank placeholder.

(b) **Added/Replacement Sheets**

An added sheet is a sheet that previously did not exist. It is to be numbered and inserted in its proper location, adding an alphabetical character to its sheet designation; for example, the "A" in 67, 67A, 68.

A replacement sheet is a sheet on which the changes are so massive, a cloud(s) would cover a substantial portion (over 50%) of the sheet, or the changes could not be clearly defined with a cloud(s).

These sheets are noted in the revision block by the note "Added Sheet" or "Replacement Sheet," whichever is applicable. Only the revision block shall be shaded.

(c) **Revisions/Additions**

The revision/addition note shall be placed in the revision block, and all revisions, including additions, shall be shaded.

(d) **Addendum Cloud (for Plan/Profile/Section/Detail Sheets Only)**

On CAD-produced sheets (plan view, profile view, sections view, and detail), use the cloud line tool to identify an item(s) or area(s) to be changed. To cloud an addendum, in MicroStation version V8, from the WSDOT MENU, browse to "Sheet Items > GI General Sheet Items," select "Addendum Cloud," and draw a boundary line around the item(s) or area(s) to be changed.

Addendum cloud line attributes will have an arc radius of 0.1, arc angle of 145°, line style of 0, line weight of 5, and line color of 15 (RBG value = R:120, B:120, G:120).

Refer any questions about addendum cloud(s) to your region CAD coordinator or the HQ CAE Office.