AMENDMENT OF SOLICITATION / MODIFICATION OF CONTRACT	1. Solicitation Number	Page of Pages
	OCPTO210075	1 of 1

2. Amendment/Modification Number	3. Effective Date	4. Requisition/Purchase Request No.	5. Solicitation Caption
Amendment No. 1	See Box 16C		**Request for Qualifications (RFQ) for the I-295 Weigh Station Upgrade – Preliminary & Final Design**

6. Issued by: Code	7. Administered by (If other than line 6)
District Department of Transportation Office of Contracting and Procurement 55 M Street, SE, 7th Floor Washington, DC 20003	

8. Name and Address of Contractor (No. street, city, county, state and zip code)		9A. Amendment of Solicitation No.
TO ALL PROSPECTIVE OFFERORS	X	OCPTO210075 9B. Dated (See Item 11) November 30, 2021
		10A. Modification of Contractor/Order No.
Code Facility		10B. Dated (See Item 13)

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

☒ The above numbered solicitation is amended as set forth in item 14. The hour and date specified for receipt of Offers ☐ is extended. ☒ is not extended.

Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____1_____ copies of the amendment: (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) BY separate letter or fax which includes a reference to the solicitation and amendment number. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such may be made by letter or fax, provided each letter or telegram makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. Accounting and Appropriation Data (If Required):

13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTORS/ORDERS,
IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14

	A. This change order is issued pursuant to (Specify Authority): The changes set forth in Item 14 are made in the contract/order no. in item 10A.
	B. The above numbered contract/order is modified to reflect the administrative changes (such as changes in paying office, appropriation data etc.) set forth in item 14, pursuant to the authority of 27 DCMR, Chapter 36, Section 3601.2.
	C. This supplemental agreement is entered into pursuant to authority of:
☐	D. Other (Specify type of modification and authority) Paragraph 15, Changes, Standard Contract Provisions

E. IMPORTANT: Contractor ☐ is not ☒ is required to sign this document and return **one (1)** copy to the issuing office.

14. Description of Amendment/Modification (Organized by UCF Section headings, including solicitation/contract subject matter where feasible.)

Solicitation No. OCPTO210075 is hereby amended as follows:

1. Below are responses to questions submitted.

15A. Name and Title of Signer (Type or print)	16A. Name of Contracting Officer
	Jeralyn Johnson

15B. Name of Contractor	15C. Date Signed	16B. District of Columbia	16C. Date Signed
(Signature)		Jeralyn Johnson (Signature of Contracting Officer) Digitally signed by Jeralyn Johnson Date: 2021.11.30 19:32:55 -05'00'	Nov 30, 2021

Following are responses to all questions submitted.

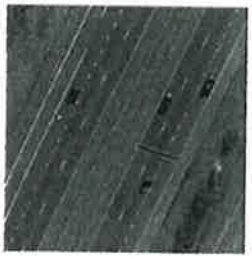
1. Under Section 8. Scope of Work, Task 2. Pre-Design Activities, it states “The contractor shall review, assess, and incorporate relevant information from DDOT’s 2008 Feasibility Study for I-295 WIM Site Improvements Study….” We are unable to find this Study via web searches. Can you provide a link or copy of the study as soon as possible?
   Response: Please see the attached document

d.
District Department of Transportation
2000 14th Street, 4th Floor
Washington, D.C. 20016

Feasibility Study for I-295 WIM Site Improvements

(DC Contract #POKA-2006-T-0027-JJ, Task No. 14)

Final Report



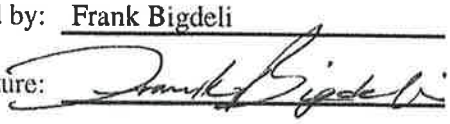
July 18, 2008

Prepared by:

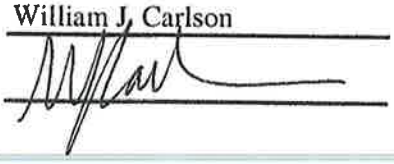
David Volkert & Associates Engineering, P.C.
5028 Wisconsin Avenue, NW, Suite 403
Washington, DC 20016

SIGNATURE PAGE

Prepared by: Frank Bigdeli

Signature:  Date: 07-11-08

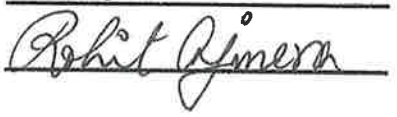
Reviewed by: William J. Carlson

Signature:  Date: 7/11/8

Reviewed by: _____

Signature: _____ Date: _____

Quality Assurance: Rohit Ajmera

Signature:  Date: 11 July '08

Approved: Cesar E. Vargas

Signature:  Date: 7/11/08

DOCUMENT REVISION PAGE

Revision	Description	Revised by	Date
Revision 1.0	Initial Release		
Revision 1.1	Include 30% deliverable comments		
Revision 2.0	Final	Frank Bigdeli	07-11-08

Technical Report Documentation Page

1. Report No.	2. Report Date
DDOT-TOA-CIP-07-001	July 18, 2008

3. Title and Subtitle	4. Contract or Grant No.
Feasibility Study for I-295 WIM Site Improvements	

5. Author(s)

William J. Carlson
Frank Bigdeli

6. Performing Organization Name and Address	7. Type of Report and Period Covered.
David Volkert & Associates Engineering, P.C. 5028 Wisconsin Avenue, NW, Suite 403 Washington, DC 20016	

8. Sponsoring Agency Name and Address

District Department of Transportation - TOD, TOA
2000 14th Street, N.W. 2nd Floor
Washington, D.C. 20009

9. Supplementary Notes

10. Abstract

This study involved an evaluation of the existing weigh-in-motion (WIM) sites on Northbound and Southbound I-295 near MD/DC state line to assess the feasibility of expanding the operations to include a scale house, parking spaces for trucks and enforcement vehicles, an inspection pit, and appropriate acceleration and deceleration lanes. The study also included a review of available technologies for detection of hazardous materials.

11. Key Words	12. Distribution Statement
weigh-in-motion WIM I-295 Feasibility study Inspection Trucks	

13. Security Classif.(of this report)	14. Security Classif.(of this page)	15. No. of Pages	16. Price
Unclassified	Unclassified		

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EXECUTIVE SUMMARY

It is feasible and beneficial to improve the existing weigh-in-motion (WIM) sites along Southbound I-295 (Anacostia Freeway) to include inspection facilities along with technological components for detection of various hazardous materials such as radiological, chemical, and biological. However, the Northbound I-295site was relocated further south along I-295 in order to provide additional distance between the site and the Laboratory road interchange. The conceptual drawings developed for the two (2) station sites meet appropriate AASHTO design guidelines for deceleration and acceleration requirements for interstate highways. The sites have existing nearby utilities including electrical, water, and sanitary sewer. New technologies are available that can detect hazardous materials, as well as other mechanical malfunctions such as excessive heating associated with improper lubrication of bearings and motors, misalignments in rotating equipment, and improper tension in drive belts and pulley. The proposed improvements will enhance safety for both trucks and the general public. The commission of this feasibility study for improving the WIM sites on I-295 is an acknowledgement of District Department of Transportation (DDOT), Metropolitan Police Department (MPD), and Federal Highway Administration (FHWA) contributions and commitment to transportation safety and the general public.

1. INTRODUCTION

This study was a collaborative effort with representatives from FHWA, DDOT-TOD, DDOT-IPMA, the Metropolitan Police Department (MPD), and Federal Motor Carrier Safety Administration (FMCSA). A key objective of the study was to assess the feasibility of expanding the existing WIM sites to include additional detection and inspection capabilities in order to enhance the overall truck safety and enforcement operations along I-295. The study area is shown on Figure 1.

The District currently has WIM systems along the northbound and southbound lanes of I-295 near the Maryland State line. The WIM technology was installed as part of the rehabilitation of I-295 from the District of Columbia/Maryland State line to Laboratory Road. The load cells were installed in each lane at Station #114+60 for the Southbound and at Station #111+40 for the northbound direction (see Figures 8B and 9A for details). The northbound I-295 WIM load cells have been relocated to Sta. 108+00. The distances between the load cells and WIM sites are 441 meters (1,447') and 465 meters (1,525') for the southbound and northbound directions, respectively. The sites collect traffic counts by vehicle classification, weight, and speed. The data is utilized by DDOT. They are also equipped with cameras to photograph vehicles. In addition, vehicle data is transmitted to MPD's Commercial Vehicle Enforcement Unit with downstream pull-off areas and portable scales. The constructed pull-off areas are 75 meters (246') in length. In should be noted that as part of the I-295 reconstruction project, multiple 4" conduits along with manholes were installed on both sides of I-295 within the outside shoulders for TSM communication and electrical utilities. The District is planning to improve the pull-off areas with a small scale house and stationary platform scales to expand the inspection operations.

FIGURE 1

2. REVIEW OF COMPARABLE SITES

As part of this study, field reviews was conducted at comparable sites in Virginia and Maryland.

On I-95 in Dumfries, Virginia, there are scale houses for both northbound and southbound directions. A pedestrian tunnel under I-95 provides access from the northbound administrative location to the southbound inspection site. The truck inspection area and pit are located approximately ½ mile north of the scale houses and platform scales. The project team also visited two (2) WIM sites in Maryland (Upper Marlboro and Hyattstown). The Maryland locations both have scale houses with considerable parking areas. The Hyattstown site also has an inspection pit.

3. AVAILABLE PRODUCTS AND DETECTION TECHNOLOGIES

The technologies for detection of hazardous materials have been evolving in recent years in support of homeland security. Such technologies have been in place for boarder crossings, as well as other applications, and can be applied to WIM systems in Washington, D.C.

3.1 Scale House

There is a variety of booth types available for use as a scale house. The units shown on Figure 2 are bullet resistant and can be custom-designed to meet various requirements such as HVAC, restroom facilities; interior and exterior intercom, security alarms, and extended engineering loads for roofs. Details about theses units, offered by B.I.G. Enterprises, Inc., are included in Appendix A.

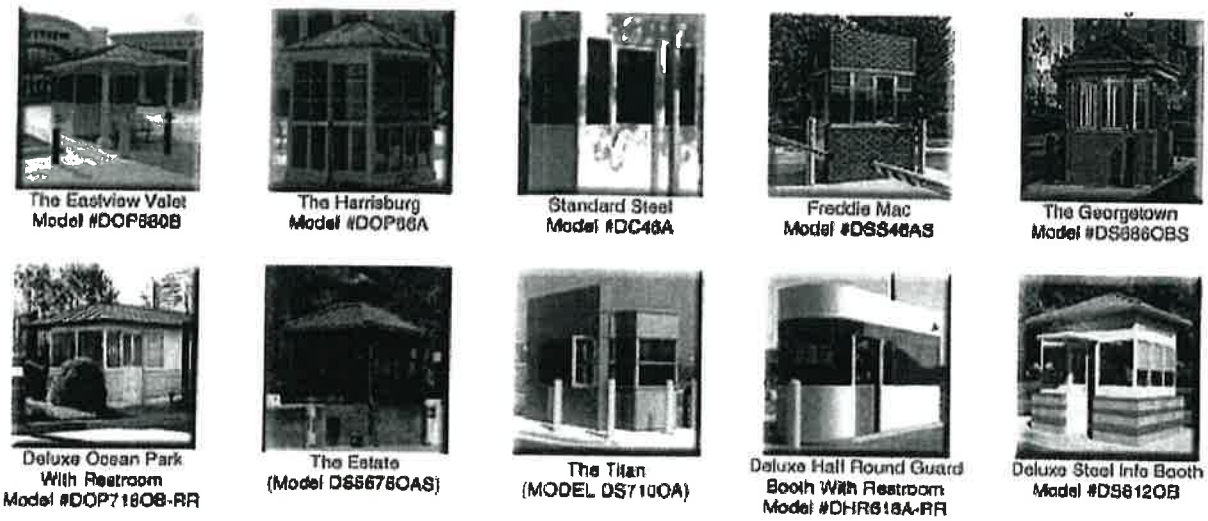


FIGURE 2 - Station House Design Options

3.2 Mainline Sorting

Mainline sorting systems are intended for preclearing and automatically sorting vehicles based on weight of a truck, axle spacing, height, vehicle identification, and credentials. The processing steps include:

1. A truck travelling toward the truck inspection station is directed to use the right-hand lanes.

2. On the mainline, in advance of the inspection station, mainline sorting systems WIM scales weigh the truck, axle sensors determine axle spacing, overheight detectors determine height, and overhead automatic vehicle identification reader recognizes the unique identification signal from the truck's transponder.

3. A WIM computer processes this information to produce a vehicle record that can be checked with the credential database and transportation regulations.

4. Based on weight, credential information, and safety records, the computer makes a "sort" decision ("bypass" or "report").

5. The sort decision is transmitted via radio frequency to the in-cab transponder. The in-cab transponder will illuminate a red or green light according to the sort decision. A red light means the truck must report to the station. A green light means the truck proceed uninterrupted along the mainline without having to report to the station.

6. Trucks on both mainline and ramp are then tracked by in road sensors to verify correct lane use.

Examples of the benefits of mainline sorting include:

- Minimizes the volume of truck traffic reporting to the weigh station
- Improves productivity of the weigh station by performing automatic checks prior to the station and scales
- Accommodates increased truck traffic volumes while avoiding the greater costs of expanding an existing weigh station
- Increases enforcement capabilities by checking licenses, registration, permits, tax payments, and safety inspection records in less than one second.
- Automatically preclears those trucks registered and in compliance
- Saves time and operating expenses for transportation industry and public
- Improves safety (fewer trucks reporting results in fewer back-ups onto the mainline

- Provides accurate data collection for highway planning and maintenance
- Allows enforcement agency to maximize the efficiency of personnel

The basic configuration of a mainline sorting system is illustrated on Figure 3.

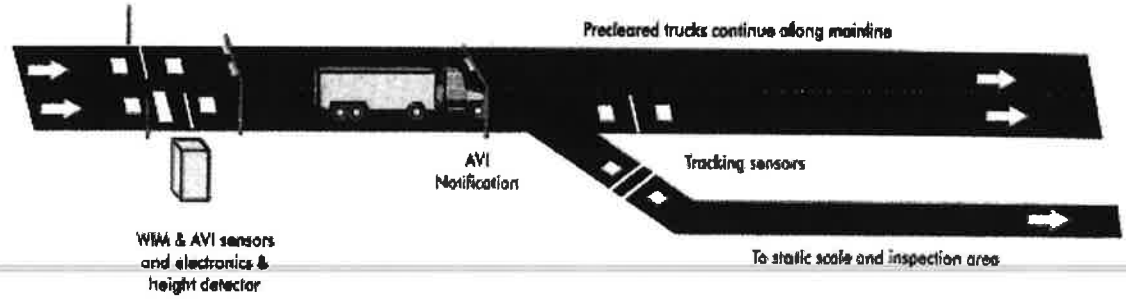


FIGURE 3 - Configuration of Mainline Sorting

3.3 Integrated Safety and Security Enforcement System (ISSES)

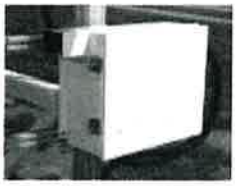
The Integrated Safety and Security Enforcement System (ISSES) technology has many capabilities including radiation detection, thermal imaging, license plate recognition (LPR), USDOT image capture, and automatic vehicle identification (AVI). ISSES can be integrated to existing WIM systems. This system consists of several components that can be integrated into an existing WIM system to enhance detection operations. Components and capabilities include:

- Radiation Detection with Spectroscopy (HazMat Enforcement) - Radiological Sensors for bulk monitoring without slowing the pace of commerce.

- Thermal Imaging - Thermal inspections for brakes, running gear, and other law enforcement application. This represents a key factor for pursuing the improvements due to the resulting effectiveness in safety enhancements on I-295.

- License Plate Recognition (LPR) - Pulsed infrared license place recognition system to identify vehicle registration and stolen vehicles.

- USDOT Image Capture - high speed, high resolution digital imaging for CMV enforcement and hazmat enforcement



- AVI (Automatic Vehicle Identification) - AVI is a surveillance method that uses optical character recognition on images to read the license plates on vehicles.
- DSRC (Dedicated Short-Range Communications) - This technology is a short- to medium-range wireless protocol specifically designed for automotive use. It offers communication between vehicles and roadside equipment.
- Vehicle Classification and Counter
- Digital Video Capture

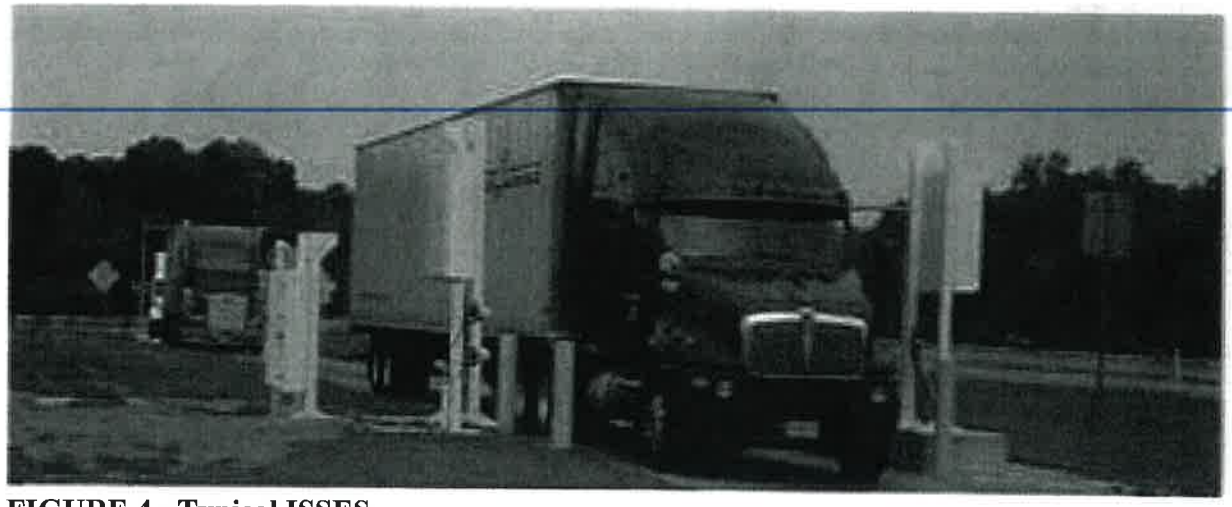


FIGURE 4 - Typical ISSES

3.4 Thermal Imaging Cameras

Thermal imaging cameras are compact and easy-to-use as a diagnostic tool and they quickly and accurately measure temperatures over large areas, allowing quick identification of hot spots. Applications include:

Electrical

- Most electrical problems exhibit a gradual rise in temperature prior to their failure
- Loose or over tight connections
- Shorted of overloaded circuits
- Load imbalances
- Components which have failed or are fatigued such as fuses

Mechanical

Excessive heating of mechanical devices can signify problems such as:

- Improper lubrication of bearings and motors
- Misalignments inn rotating equipment
- Improper tension in drive belts and pulleys

3.5 Detection of Special Nuclear Material (SNM)

The RadSentry family of portal monitors detect gamma and neutron radiation for the purpose of stopping elicit shipment of SNM and other radionuclides (see Figure 5 below). Cargo and box

scanners can also be used with x-ray scanning and inspection systems. Radiation Sensor Panels (RSP) are supplied by North American Technical Services (NATS). This device uses RadSentry security portals for SNM and other radionuclides. A similar high-performance, hand-held spectrometer unit can be used to perform inspections of specific areas. Additional details are provided in Appendix D.

3.6 Laser-Induced Breakdown Spectroscopy (LIBS)

This technology is an emerging method that possesses many desirable attributes for a fast field-portable sensor system. Until recently, LIBS technology was able to monitor only a few elements at a time. However with the advent of new high-resolution broadband spectrometers, LIBS today is capable of monitoring all chemicals present in a sample at the same time with a single laser shot. This technology can identify virtually all hazardous materials. The key features of LIBS include:

1) Real-Time Analysis
2) High Sensitivity
3) No Sample Preparation
4) Ability to Detect all Elements (both Molecular and Biological)

3.7 Weigh Station Bypass Systems (PrePass and NORPASS)

PrePass is an automated vehicle identification (AVI) system that enables participating transponder-equipped commercial vehicles to be pre-scanned throughout the nation at designated weigh stations. Cleared vehicles are then able to "bypass" the facility while traveling at highway speed. Vehicles that participate in the program are pre-certified. Driver's safety records and credentials are routinely given to state and federal agencies to ensure adherence to the safety and bypass criteria established by PrePass and member states. If an approaching vehicle's weight and credentials are found to be satisfactory, a green light and audible signal from a windshield-mounted transponder advises the driver to bypass the weigh station. Otherwise a red light and audible signal advise the driver to pull into the weigh station for inspection.

Figure 6 illustrates the three (3) PrePass processing steps.

1. As a truck equipped with a transponder approaches the weigh station, an electronic reader on a boom over the road automatically scans the transponder.

2. A secure PrePass computer located inside the scale house accesses the vehicle information associated with the transponder, and validates it to ensure compliance with state requirements.

3. Finally, as the truck passes beneath a second boom, a signal indicating whether the vehicle may pass is transmitted back to the transponder which will indicate either a green or red light.

PrePass is currently operational at 280 sites in 28 states. In 2007, Georgia and South Carolina added PrePass to their WIM sites.

FIGURE 5 - SNM Detection

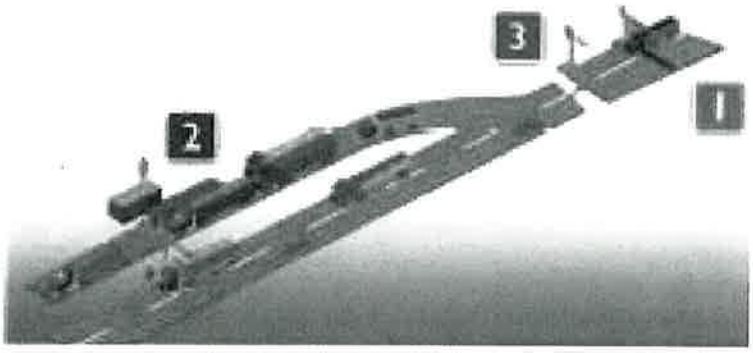


FIGURE 6 - PrePass Processing Steps

The **North American Preclearance and Safety System**, or **NORPASS**, is a partnership of state and provincial trucking industry representatives who are involved in promoting safe and efficient trucking throughout North America. The system is similar to PrePass and requires a transponder for communication purposes.

4. PRELIMINARY I-295 CONCEPT PLANS

As part of this study, Volkert conducted an evaluation of the existing sites (including a review of prior engineering work for I-295) to determine the feasibility of the planned improvements. Typical sections for the station sites are shown on Figure 7. The conceptual drawings developed for the two (2) station sites meet appropriate AASHTO design guidelines for deceleration and acceleration requirements for interstate highways (see AASHTO Exhibits for acceleration (Exhibit 10-70) and deceleration (Exhibit 10-73). Due to the proximity of the sites to the downstream Oxon Run Bridge (southbound I-295 site) and the Laboratory Road interchange, the scale house, inspection pit, and out-of-service truck storage space are placed as close to the roadway as possible to minimize the length of accel/decel lanes. The sites have sufficient space to accommodate installation of station houses, platform scales, inspection pit, two (2) truck storage spaces (i.e., for vehicles that are in violation), and between Nine (9) and (10) parking spaces for enforcement vehicles. As shown on the concept plans, both sites necessitate retaining walls. The height of the walls will be determined during the next design phase of the project, however it is anticipated that the retaining walls will be 3 meters to 4 meters (10' to 13') in height. There is flexibility to expand the size of the scale house by reducing the number of parking spaces for the enforcement vehicles; this is another area to be evaluated during the design phase of this project.

The spacing requirements for the PrePass system, as described by the vendor are between one thousand feet and three thousand feet. Therefore, given the distances between the WIM load cells/OCR are approximately 460 meters (~1500'), it is our opinion that sufficient space does exist for installation of this technology. License plate readers for enforcement can be placed on the overhead structures that will carry the PrePass detections systems. Please note that depending on the technology selected for the design, LPR may or may not be required to be overhead. LPR technology

Figure 7

Exhibit 10-70

Exhibit 10-73

Both sites include an inspection pit. Sheds over the pits have been identified on Figure 7. The sheds over the inspection pits will require further investigation during the design phase. The sheds will provide for trucks inspections during inclement weather. The sites have existing nearby utilities including electrical, water, and sanitary sewer. A 6" water tap to existing WASA facilities can be provided. This water tap will be designed depending on specific requirements (e.g., the need for fire hydrant). Wireless technology exists and can be maintained for communication purposes. There also are existing Transportation Management System (TMS) conduits along I-295. Details of each site are provided below. The following table lists the design elements for each site.

Table 1 - I-295 WIM Site - Design Elements

Existing	**NB Site**		**SB Site**	
	meters	Feet	meters	Feet
Deceleration Taper			80	262
Deceleration Lane			195	640
Acceleration Lane			155	508

Proposed	**Relocated NB Site**		**Expanded SB Site**	
	meters	Feet	meters	Feet
Deceleration Taper	75	246	90	295
Deceleration Lane	130	427	195	640
Platform Scale /Scalehouse/ Parking	75	246	75	246
Inspection Pit	30	988	30	98
Out-of-Service Truck Storage	40	131	40	131
Acceleration Lane	230	755	135	443
Acceleration Taper	90	295	90	295

4.1 Southbound WIM Site - The proposed concept plan would accommodate the additional uses (i.e., scale house, parking, platform scale, out-of-service vehicle storage, and inspection pit) while meeting AASHTO design guidelines for acceleration and deceleration lanes. This will require the use of approximately 0.6m (about 2') of the left shoulder width, adjusting the mainline lanes, and using the right shoulder for acceleration. The resulting width of the left shoulder (i.e., 2.4m or 8') would require a design exception.

The station site would require a retaining wall approximately 3 meters or 10' in height. This concept would not have any adverse impact on the WASA property. The site would include parking space for two (2) trucks. Enforcement vehicles would have sufficient parking and be able to go around the scale house to return to I-295. Figures 8A and 8B provide plan and profile details of the concept plan.

4.2 Northbound WIM Site - The proposed concept plan for this direction features a relocation (further south) of the existing site and WIM load cells. This relocated site also would accommodate the additional uses (i.e., scale house, parking, platform scale, out-of service

vehicle storage, and inspection pit) while meeting AASHTO design guidelines for acceleration and deceleration lanes. The station site for this direction also would require a retaining wall. Enforcement vehicles would have sufficient parking and be able to go around the scale house to return to I-295. The site offers trade-offs and flexibility with regards to use of the available area. The site would accommodate two (2) parking spaces for out-of-service trucks that are in violation (see Figures 9A and 9B for details). As reflected on the drawings, Optical Character Readers are included for both directions at the existing and proposed locations of WIM load cells.

FIGURE 8A

FIGURE 8B

FIGURE 9A

FIGURE 9B

Figure 9C

5. PRELIMINARY PLANNING COST ESTIMATE

Volkert staff contacted International Road Dynamics (IRD) and BIG enterprises to obtain preliminary estimates for various components. In addition, a preliminary cost estimate was developed for the roadway improvements. The total cost estimate for the expansion of the existing southbound I-295 site and the relocation of the northbound I-295 site is $6,897,800.00. Elements of the roadway improvements and associated costs are shown on Figure 10. For the purpose of clarity, the combined cost estimate for the scale house and related items is included on the figure as item number 7. It should be noted that the estimate is intended for planning purposes and basic system components. Inclusion of additional technologies such as thermal imaging can result in higher costs.

6. CONCLUSIONS

The preliminary review of both sites indicates that there is currently sufficient space available to accommodate a scale house while meeting AASHTO design guidelines (see Appendix H for calculation details) for the southbound I-295 site. The northbound I-295 site was relocated so as to not compromise traffic operations at the I-295 / Laboratory Road interchange. Research findings illustrate that new technologies are available for detection of various hazardous material including radiological, biological, and chemical. Considerations should be given to integration and implementation of such technologies, such as thermal imaging, as part of site improvements. Given the feasibility of the project, more detailed engineering design can be conducted to proceed with the upgrades. Additionally, the project team can be expanded to include representatives from vendors of the scale house and detection technologies. The next steps would consist of roadway improvement design, construction, system design, development, integration, and installation.

FIGURE 10

or more, and the motorist on the ramp has an unobstructed view of traffic on the freeway to his or her left. The minimum acceleration lengths for entrance terminals are given in Exhibit 10-70, and the adjustments for grades are given in Exhibit 10-71.

Metric

Highway		Acceleration length, L (m) for entrance curve design speed (km/h)							
		Stop condition	20	30	40	50	60	70	80
Design speed, V (km/h)	Speed reached, V_a (km/h)	and initial speed, V_a' (km/h)							
		0	20	28	35	42	51	63	70
50	37	60	50	30	—	—	—	—	—
60	45	95	80	65	45	—	—	—	—
70	53	150	130	110	90	65	—	—	—
80	60	200	180	165	145	115	65	—	—
90	67	260	245	225	205	175	125	35	—
100	74	345	325	305	285	255	205	110	40
110	81	430	410	390	370	340	290	200	125
120	88	545	530	515	490	460	410	325	245

Note: Uniform 50:1 to 70:1 tapers are recommended where lengths of acceleration lanes exceed 400 m.

US Customary

Highway		Acceleration length, L (ft) for entrance curve design speed (mph)								
		Stop condition	15	20	25	30	35	40	45	50
Design speed, V (mph)	Speed reached, V_a (mph)	and initial speed, V_a' (mph)								
		0	14	18	22	26	30	36	40	44
30	23	180	140	—	—	—	—	—	—	—
35	27	280	220	160	—	—	—	—	—	—
40	31	360	300	270	210	120	—	—	—	—
45	35	560	490	440	380	280	160	—	—	—
50	39	720	660	610	550	450	350	130	—	—
55	43	960	900	810	780	670	550	320	150	—
60	47	1200	1140	1100	1020	910	800	550	420	180
65	50	1410	1350	1310	1220	1120	1000	770	600	370
70	53	1620	1560	1520	1420	1350	1230	1000	820	580
75	55	1790	1730	1630	1580	1510	1420	1160	1040	780

Note: Uniform 50:1 to 70:1 tapers are recommended where lengths of acceleration lanes exceed 1,300 ft.

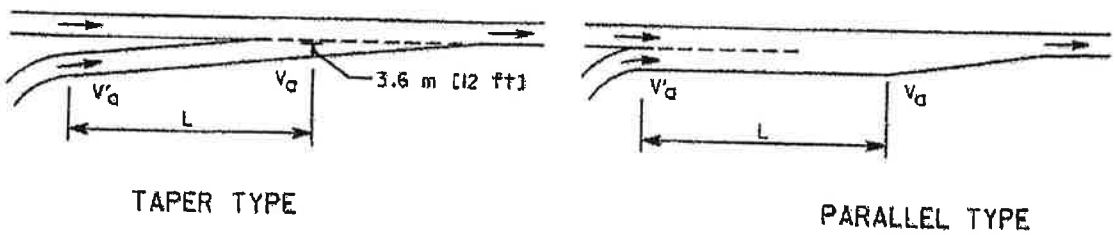


Exhibit 10-70. Minimum Acceleration Lengths for Entrance Terminals with Flat Grades of Two Percent or Less

Metric

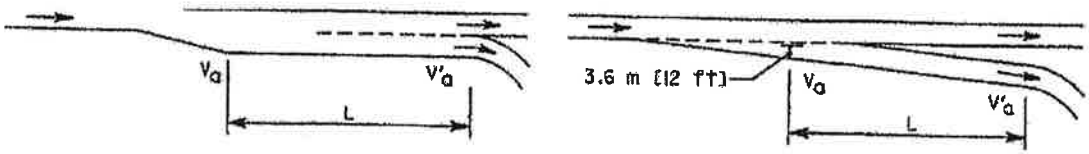
Highway design speed, V (km/h)	Speed reached, V_a (km/h)	Deceleration length, L (m) for design speed of exit curve V_N (km/h)							
		Stop condition	20	30	40	50	60	70	80
		For average running speed on exit curve V'_a (km/h)							
		0	20	28	35	42	51	63	70
50	47	75	70	60	45	—	—	—	—
60	55	95	90	80	65	55	—	—	—
70	63	110	105	95	85	70	55	—	—
80	70	130	125	115	100	90	80	55	—
90	77	145	140	135	120	110	100	75	60
100	85	170	165	155	145	135	120	100	85
110	91	180	180	170	160	150	140	120	105
120	98	200	195	185	175	170	155	140	120

V = design speed of highway (km/h)
V_a = average running speed on highway (km/h)
V_N = design speed of exit curve (km/h)
V'_a = average running speed on exit curve (km/h)

US Customary

Highway design speed, V (mph)	Speed reached, V_a (mph)	Deceleration length, L (ft) for design speed of exit curve, V_N (mph)								
		Stop condition	15	20	25	30	35	40	45	50
		For average running speed on exit curve, V'_a (mph)								
		0	14	18	22	26	30	36	40	44
30	28	235	200	170	140	—	—	—	—	—
35	32	280	250	210	185	150	—	—	—	—
40	36	320	295	265	235	185	155	—	—	—
45	40	385	350	325	295	250	220	—	—	—
50	44	435	405	385	355	315	285	225	175	—
55	48	480	455	440	410	380	350	285	235	—
60	52	530	500	480	460	430	405	350	300	240
65	55	570	540	520	500	470	440	390	340	280
70	58	615	590	570	550	520	490	440	390	340
75	61	660	635	620	600	575	535	490	440	390

V = design speed of highway (mph)
V_a = average running speed on highway (mph)
V_N = design speed of exit curve (mph)
V'_a = average running speed on exit curve (mph)



PARALLEL TYPE

TAPER TYPE

Exhibit 10-73. Minimum Deceleration Lengths for Exit Terminals with Flat Grades of Two Percent or Less

LOCATION MAP

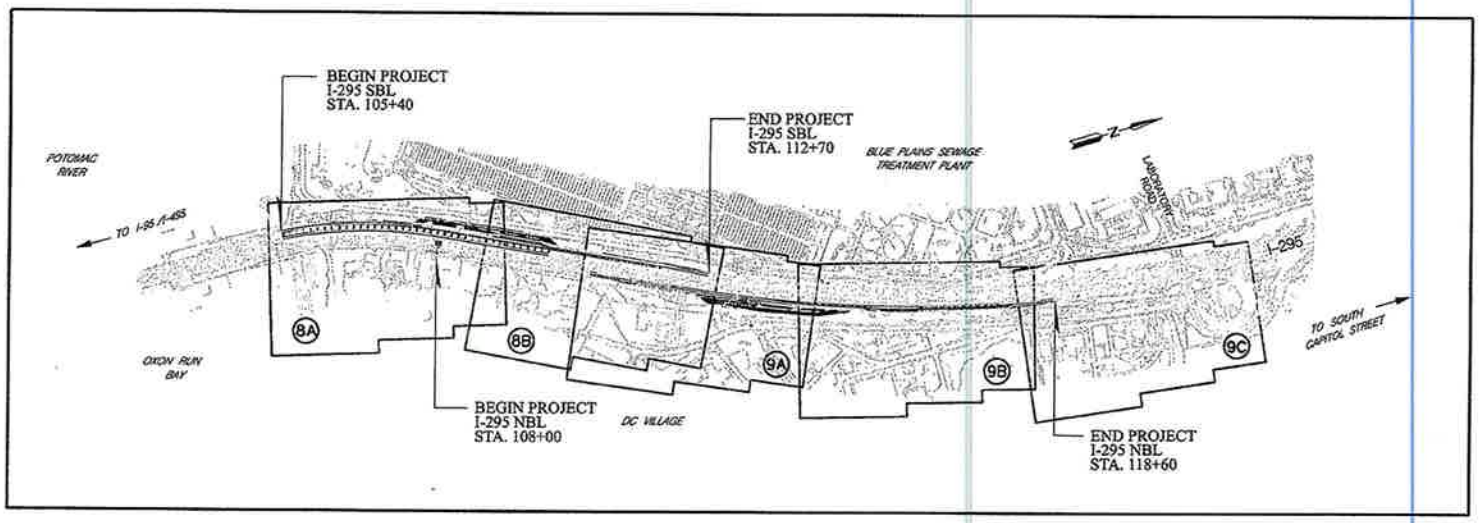
DISTRICT OF COLUMBIA
DEPARTMENT OF TRANSPORTATION

CONCEPTUAL DESIGN DRAWINGS

FEASIBILITY STUDY FOR I-295 WIM SITE IMPROVEMENTS

WARD 8 - WASHINGTON, D.C.

LENGTH OF PROJECT: 1.510 KILOMETERS



KEY MAP
N.T.S

FINAL

JULY 19, 2005

FIGURE 1 - STUDY AREA

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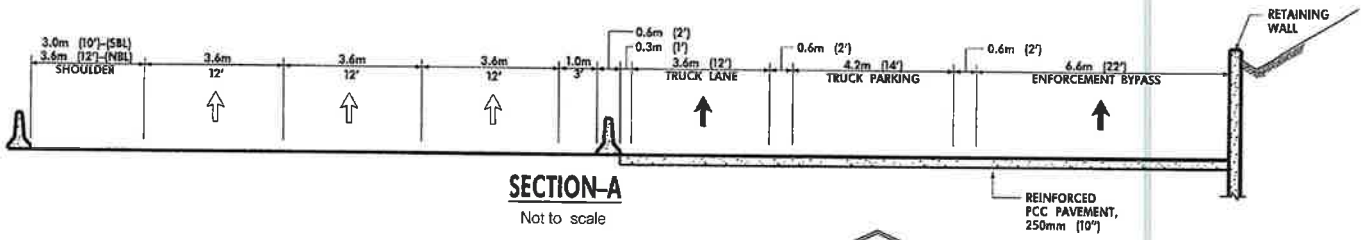
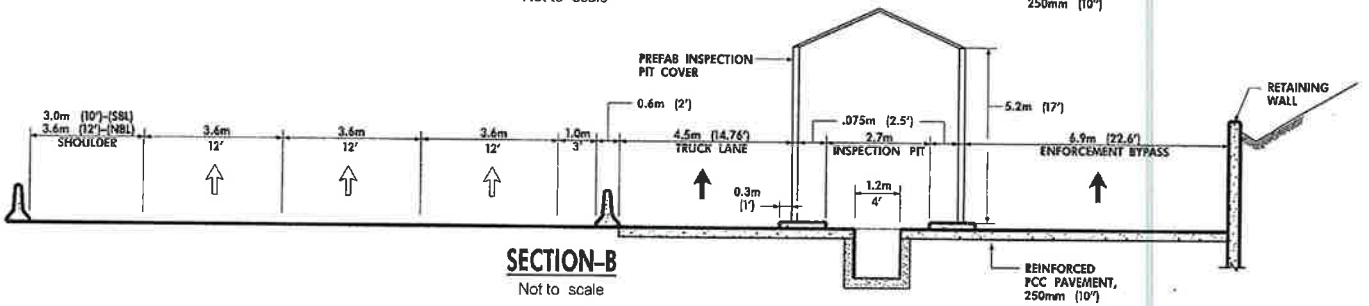
5028 WISCONSIN AVE, N.W., WASHINGTON, D.C. 20016



SECTION-A

Not to scale

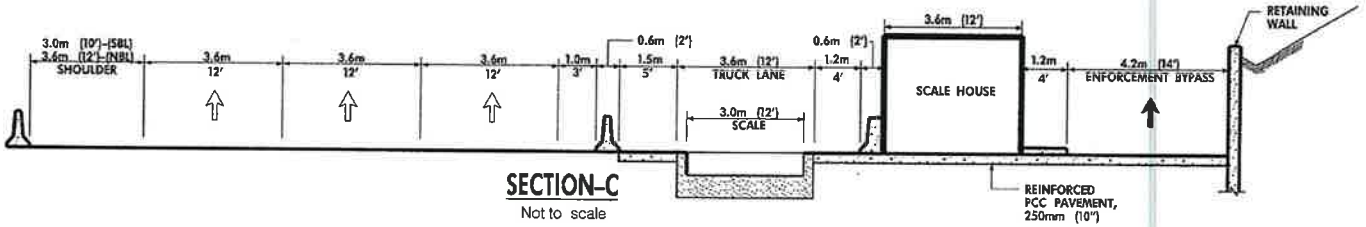
REINFORCED PCC PAVEMENT, 250mm (10")



SECTION-B

Not to scale

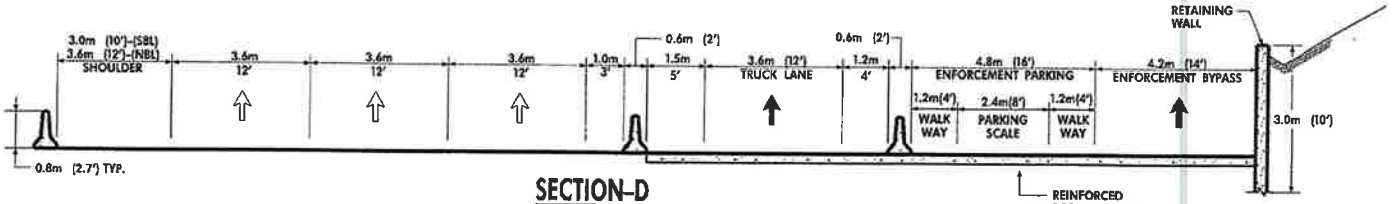
REINFORCED PCC PAVEMENT, 250mm (10")



SECTION-C

Not to scale

REINFORCED PCC PAVEMENT, 250mm (10")



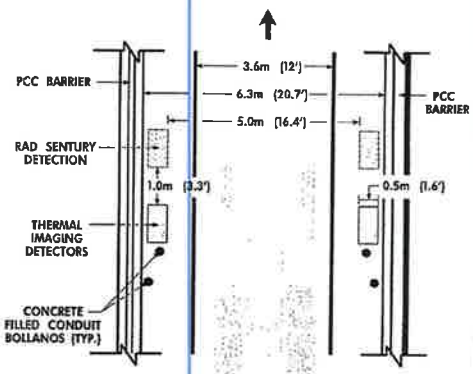
SECTION-D

Not to scale

REINFORCED PCC PAVEMENT, 250mm (10")

NOTE:

1. FOR LOCATION OF SECTIONS, SEE PLAN AND PROFILE DRAWINGS
2. DIMENSIONS ARE SHOWN IN METERS. TO CONVERT METRIC TO ENGLISH UNITS, MULTIPLY BY A FACTOR OF 3.28.



DETAILS-E
DETECTION SYSTEMS

Not to scale

NO.	BY	DESCRIPTION	DATE
		REVISIONS	

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DEPARTMENT OF TRANSPORTATION
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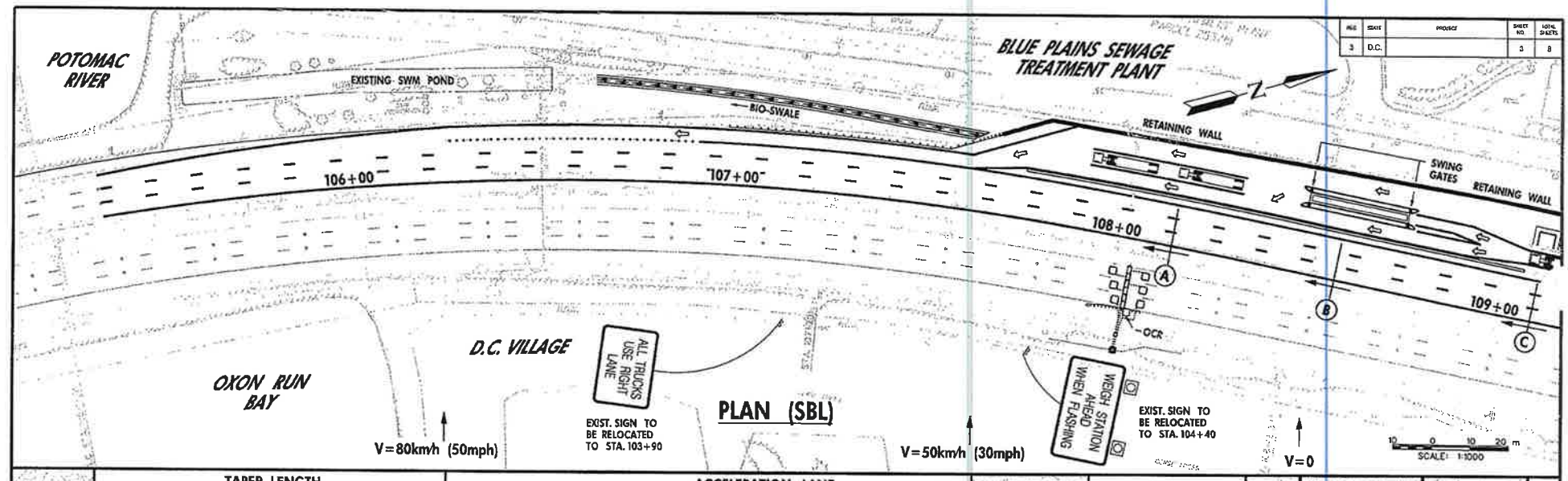
TRANSPORTATION OPERATION DIVISION

FEASIBILITY STUDY FOR I-295 WIM SITE IMPROVEMENTS
WASHINGTON, D.C.

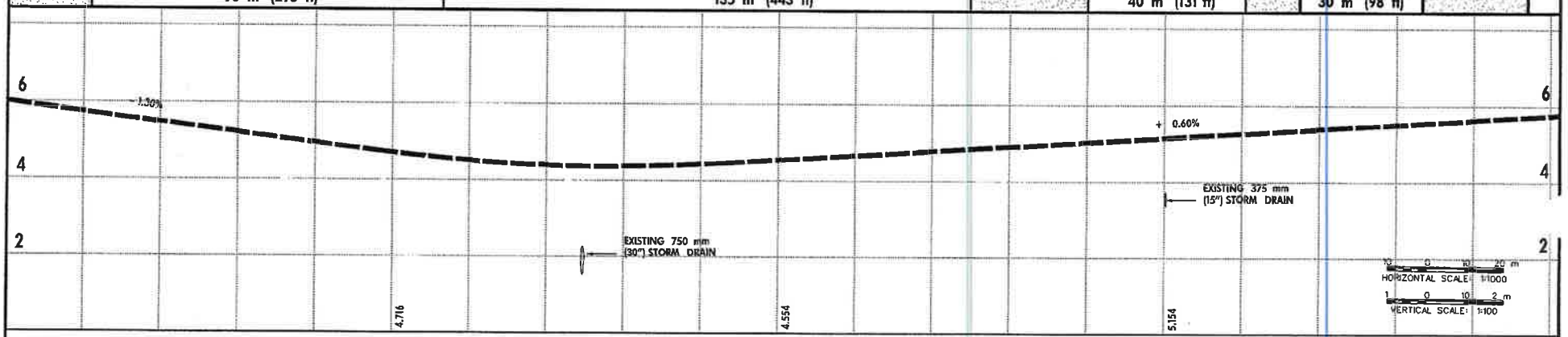
FIGURE 7 - TYPICAL SECTIONS AND DETAILS

PROJECT ENG.	
DESIGNED BY	
CHECKED BY	
DRAWN BY	
PROJECT MGR.	
DIVISION CHIEF	
DATE	
FILE	
DWG.	OF



PLAN (SBL)

TAPER LENGTH 90 m (295 ft)	ACCELERATION LANE 135 m (443 ft)	TRUCK PARKING 40 m (131 ft)	INSPECTION PIT 30 m (98 ft)



106+00 107+00 108+00

PROFILE (SBL)

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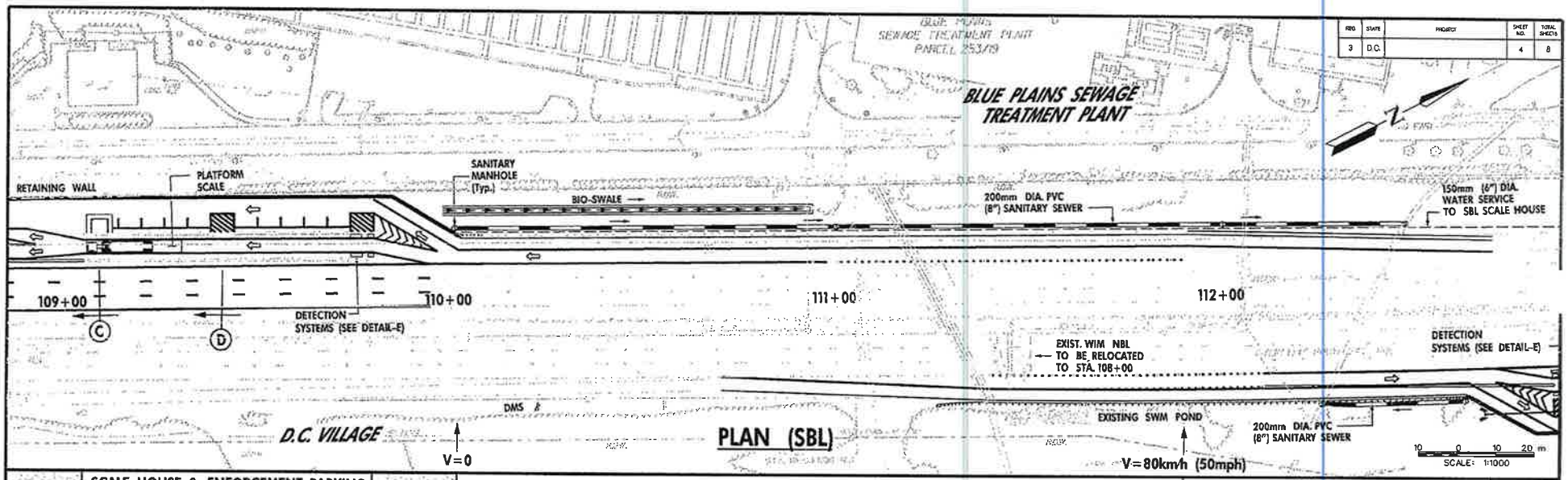
FEASIBILITY STUDY FOR I-295 WIM SITE IMPROVEMENTS
WASHINGTON, D.C.

FIGURE 8A - PLAN AND PROFILE (SOUTHBOUND)



REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
3	D.C.		4	8

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NO	DESCRIPTION	MADE	DATE

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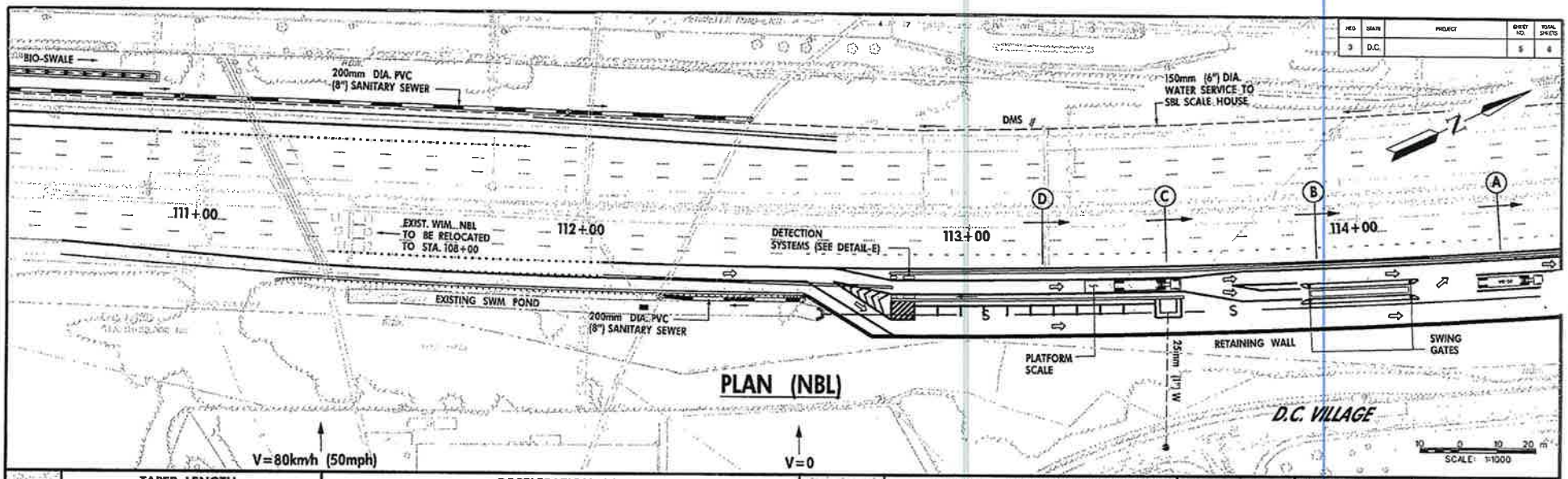
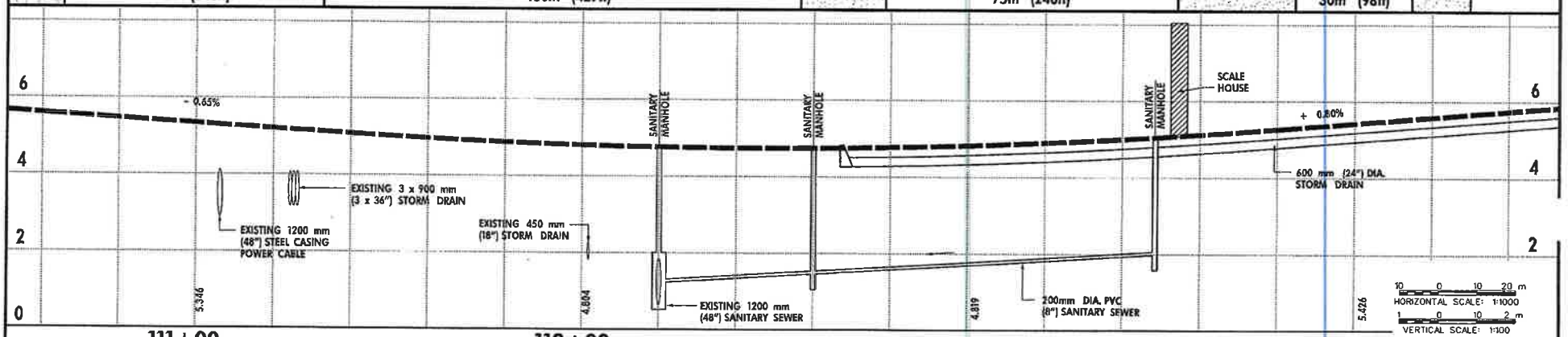
FEASIBILITY STUDY FOR I-295 WIM SITE IMPROVEMENTS
WASHINGTON, D.C.

PROJECT ENG.
DESIGNED BY
CHECKED BY
DRAWN BY
PROJECT MGR.
DIVISION CHIEF
DATE
FILE
DWG. OF

FIGURE 8B - PLAN AND PROFILE (SOUTHBOUND)



TAPER LENGTH 75m (246ft)	DECELERATION LANE 130m (427ft)	SCALE HOUSE & ENFORCEMENT PARKING 75m (246ft)	INSPECTION PIT 30m (98ft)



PROFILE (NBL)

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NO	DESCRIPTION	NAME	DATE
	REVISIONS		

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TRANSPORTATION OPERATION DIVISION

FEASIBILITY STUDY FOR I-295 WIM SITE IMPROVEMENTS
WASHINGTON, D.C.

FIGURE 9A - PLAN AND PROFILE (SOUTHBOUND)

PROJECT ENG.
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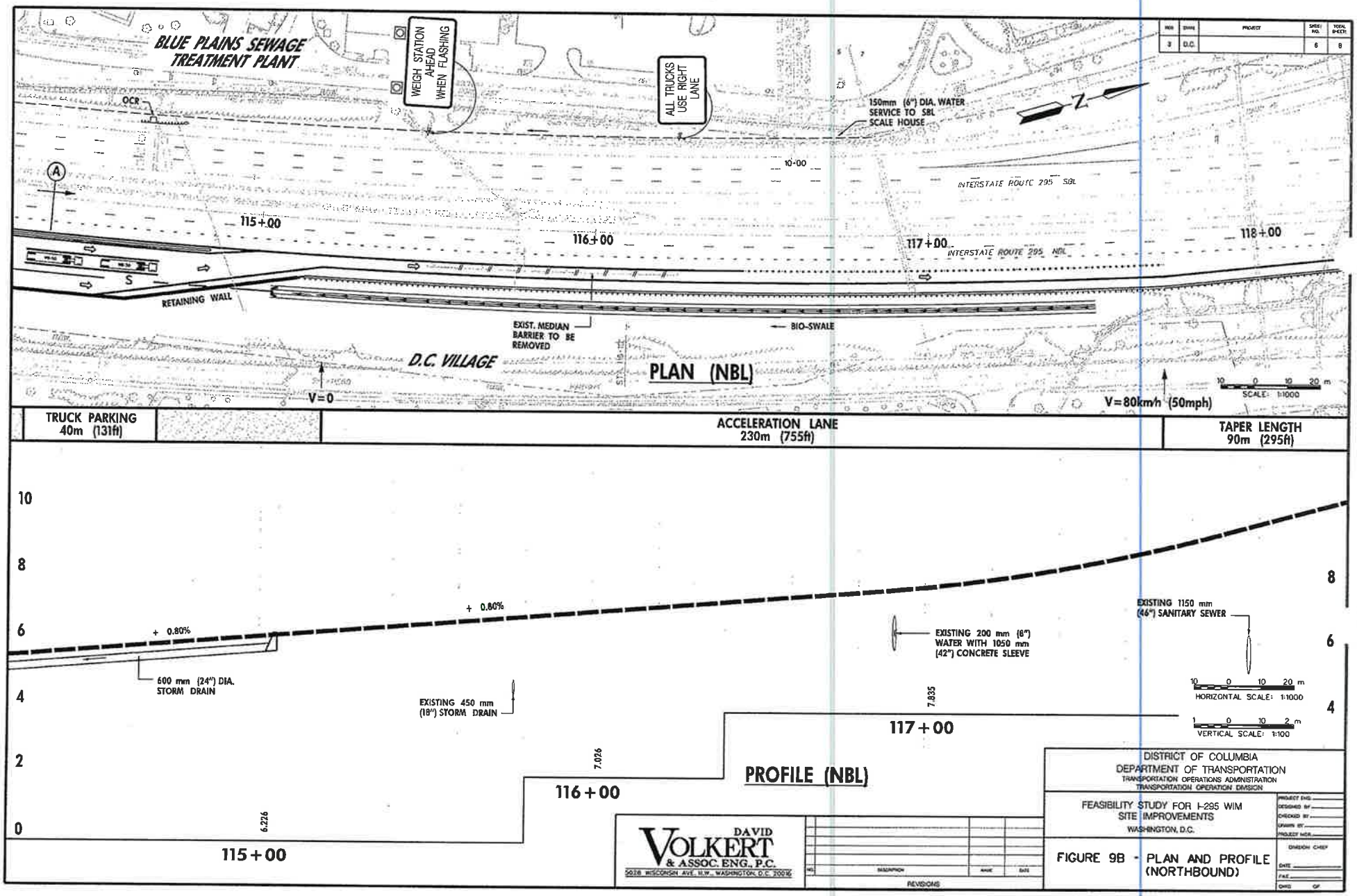
CHECKED BY
DRAWN BY
PROJECT MGR.
DIVISION CHIEF
DATE
FILE
DWG. OF


BLUE PLAINS SEWAGE TREATMENT PLANT
WEIGH STATION AHEAD WHEN FLASHING
ALL TRUCKS USE RIGHT LANE
150mm (6") DIA. WATER SERVICE TO SBL SCALE HOUSE
OCR
INTERSTATE ROUTE 295 SBL
INTERSTATE ROUTE 295 NBL
115+00
116+00
117+00
118+00
RETAINING WALL
EXIST. MEDIAN BARRIER TO BE REMOVED
BIO-SWALE
D.C. VILLAGE
PLAN (NBL)
V=0
V=80km/h (50mph)
SCALE: 1:1000
TRUCK PARKING 40m (131ft)
ACCELERATION LANE 230m (755ft)
TAPER LENGTH 90m (295ft)
+ 0.80%
+ 0.80%
600 mm (24") DIA. STORM DRAIN
EXISTING 450 mm (18") STORM DRAIN
EXISTING 200 mm (8") WATER WITH 1050 mm (42") CONCRETE SLEEVE
EXISTING 1150 mm (46") SANITARY SEWER
6.226
7.026
7.835
115+00
116+00
117+00
HORIZONTAL SCALE: 1:1000
VERTICAL SCALE: 1:100
PROFILE (NBL)
DISTRICT OF COLUMBIA
DEPARTMENT OF TRANSPORTATION
TRANSPORTATION OPERATIONS ADMINISTRATION
TRANSPORTATION OPERATION DIVISION
FEASIBILITY STUDY FOR I-295 WIM SITE IMPROVEMENTS
WASHINGTON, D.C.
FIGURE 9B - PLAN AND PROFILE (NORTHBOUND)
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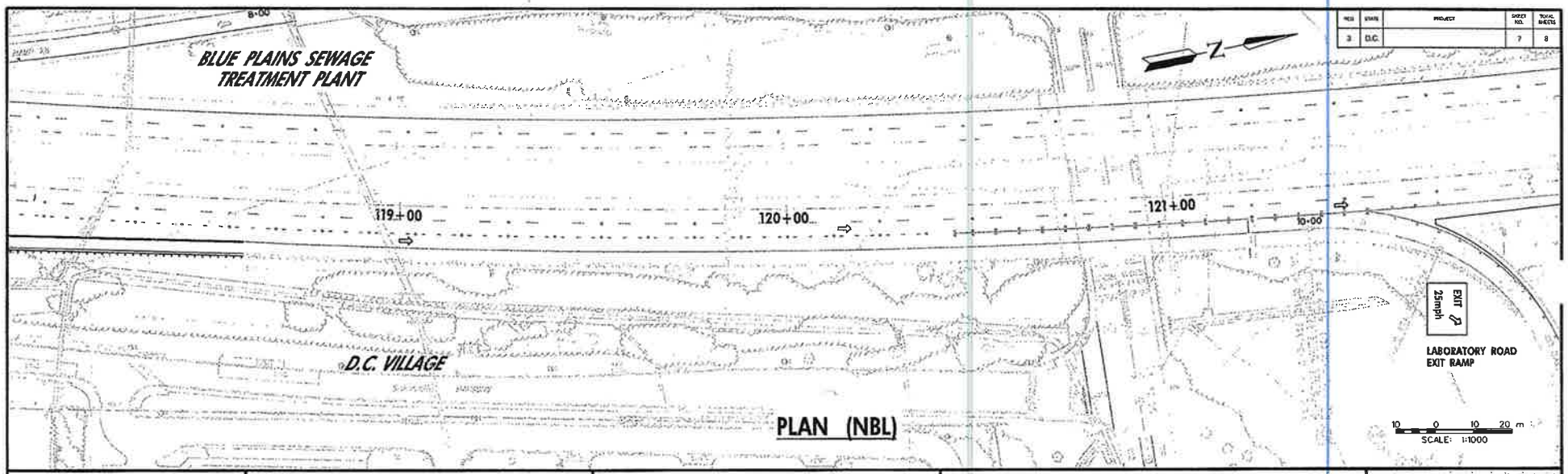
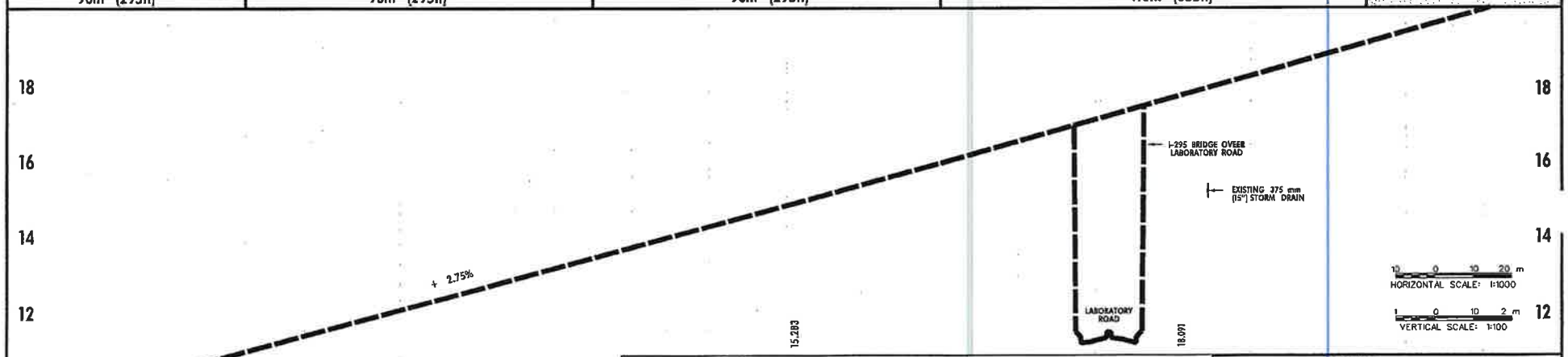
REVISIONS



TAPER	TANGENT	TRUCK MERGE AREA	DECELERATION LENGTH – LABORATORY RD. EXIT
90m (295ft)	90m (295ft)	90m (295ft)	110m (355ft)



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FEASIBILITY STUDY FOR I-295 WIM SITE IMPROVEMENTS
WASHINGTON, D.C.

FIGURE 9C - PLAN AND PROFILE (NORTHBOUND)

PROJECT ENG.
DESIGNED BY
CHECKED BY
DRAWN BY
PROJECT MGR.
DIVISION CHIEF
DATE
FILE
DWG. OF

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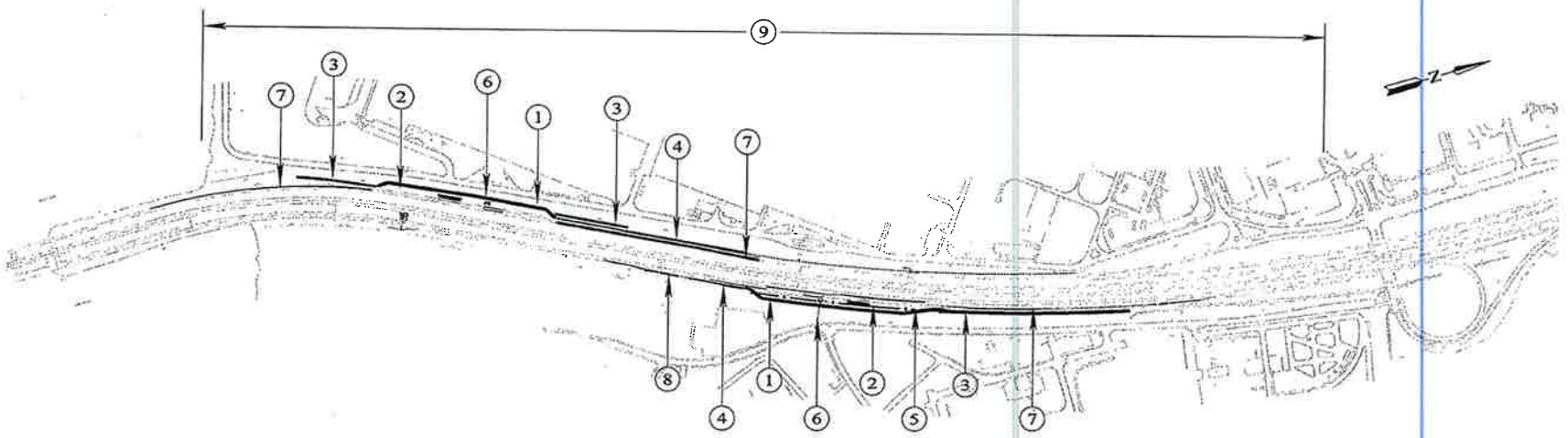

PROPOSED CONSTRUCTION - ANTICIPATED COSTS

	CODED NOTES	COST
(1)	CONSTRUCTION RETAINING WALLS (504m = 1655FT)	$662,000
(2)	CONSTRUCTION SCALE PULL OFF AREA (7160m² = 8560 sy)	$1,712,000
(3)	CONSTRUCTION SWM BIO-SWALES (446m = 1465ft)	$234,550
(4)	INSTALL SANITARY LINES (462m = 1515ft)	$75,750
(5)	INSTALL STORM LINES (245m = 805ft)	$161,000
(6)	INSTALL WATER SERVICE (810m = 2660ft)	$266,000
(7)	CONSTRUCTION ACCELERATION LANE AND SHOULDER (565m = 1850ft)	$647,500
(8)	CONSTRUCTION DECELERATION LANE AND SHOULDER (470m = 1540ft)	$539,000
(9)	RELOCATION OF NB WIM AND SIGNS	$750,000
(10)	MISCELLANEOUS (SCALE HOUSE, SCALE, GATES, EQUIPEMT, ETC.)	$1,850,000
	TOTAL	$6,897,800

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REVISIONS

DISTRICT OF COLUMBIA
DEPARTMENT OF TRANSPORTATION
TRANSPORTATION OPERATIONS ADMINISTRATION
TRANSPORTATION OPERATION DIVISION

FEASIBILITY STUDY FOR I-295 WIM SITE IMPROVEMENTS
WASHINGTON, D.C.

FIGURE 10 - ELEMENTS OF PRELIMINARY COST ESTIMATE

COMMENTS DISPOSITION MATRIX (CDM)		
Project Name: I-295 WIM Site Improvements Feasibility Study		
Document Name:		**Reviewer Name:** DDOT/TOA/TOD
Date Comments Due: 6/18/08	**Date Comments Submitted**: 6/18/08	**Document Size (#** of Pages**):** 6

No.	Reviewer Name	Document Reference	Reviewer Comments	Priority* (H/L)	Resolution
1.	Joe Foster	Conceptual Plans	N/B trucks reentering I-295 would have to accelerate on an incline of about 2.75%, merge into an exit lane and then into the travel lane, all within ~ 300 feet. Traffic exiting I-295 at this location, backs up during morning rush hours and is heavy throughout the day. Should evaluate moving entire site, including WIM's, as far upstream as possible.	H	**We will evaluate the relocation of the NB site and make appropriate adjustments to the conceptual design estimate.**
2.	Joe Foster	Conceptual Plans	N/B & S/B – Conceptual Plans do not indicate if there is sufficient distance to install transponder readers (over lanes) for initial identification, notification, and compliance check on mainline in sufficient time for driver to exit to weigh & inspection area.	H	**We will include in the report an assessment of distances between the WIM load cells/OCR for both the NB and SB sites. Determining exact distances should be apart of the design phase.**
3.	Joe Foster	Conceptual Plans	N/B & S/B – Conceptual Plans do not indicate if there is sufficient distance to install LPR cameras (over lanes) and provide notification to driver via DMS on mainline in sufficient time for driver to exit to weigh & inspection area.	H	**We will include the evaluation of the distance requirement for the LPR cameras.**
4.	Joe Foster	Conceptual Plans	N/B & S/B – Conceptual Plans only allow for parking area for 2 Out-of-Service trucks. Need to identify additional storage area(s).		**Additional truck storage areas for southbound I-295 vehicles is not available. NB vehicles can be designated to Sheppard Parkway to the Old Elementary School site.**
5.	Brook Hailemariam	General	Please submit your calculation sheets for the acceleration lanes referencing page number of AASHTO green book. Please state your assumptions as to weight of truck, type…etc	H	**We will include the calculation sheets in a separate binder for your review.**
6.	Brook Hailemariam	General	Please utilize TOA title block emailed on 5/9/08.	L	**We will comply**
7.	Brook Hailemariam	Typical Sections; Sheet	Please show all vertical dimensions.	H	**The PCC Barrier is AASHTO standard and is 32" to 42" in height, the inspection pit is four**

***H: High – Must be addressed and/or corrected prior to acceptance of the document; L: Low – Should be addressed, investigated, and/or resolved but is not a requirement for acceptance of the document.**

No.	Reviewer Name	Document Reference	Reviewer Comments	Priority* (H/L)	Resolution
		2 of 6			**feet deep. The height of the building is to be determined.**
8.	Brook Hailemariam	Typical Sections; Sheet 2 of 6	Section D: Isn't "ENFORCEMENT BYPASS" suppose to be labeled "PARALLEL PARKING" if so, why do we have 3 dimensions 1.2m, 2.4m and 1.2m?	H	**We will change the label in indicate "Enforcement Parking" The three dimensions show the 4 foot (1.2m) available for walking on each side of the 8 foot (2.4m) parking space**
9.	Brook Hailemariam	Typical Sections; Sheet 2 of 6	Note 1: Please spell "SEEE" correctly.	L	**We will correct this typo.**
10.	Brook Hailemariam	Plan and Profile (SB lane); Sheet 4 of 6	Top Right Corner: Please add (2") next to 50mm DIA. WATER... -Label the same way in profile.	L	**This is now a 150 mm (6") dia. waterline. It is indicated on the plans.**
11.	Brook Hailemariam	Plan and Profile (NB lane); Sheet 5 of 6	Profile: Please add (2") next to 50mm DIA. WATER...	L	**This is now a 150 mm (6") dia. waterline. It is indicated on the plans.**
12.	Brook Hailemariam	Plan and Profile (NB lane); Sheet 5 of 6	Show waterline connection to the scale house.	H	**The 25 mm (1") waterline is shown.**
13.	Anthony Carroll (DCWASA)	General	- Please talk to Mr. Mcdermott of WASA re possibility of pumping water to the scale houses. - WASA will not allow a 2" waterline with the distance that Volkert Inc. is showing on the drawing to run that far to the scale house(s).	H	**The waterline was changed to 6" per WASA direction.**
14.	Patrick Chuang	General	Please move the NB weigh station south as much as possible to accommodate the acceleration lanes per AASHTO standards.	H	**The relocation of the NB WIM station will be evaluated.**

***H: High – Must be addressed and/or corrected prior to acceptance of the document; L: Low – Should be addressed, investigated, and/or resolved but is not a requirement for acceptance of the document.**

Schaefer, James (MPD)

From: Wiktor, Denise (DDOT) [Denise.Wiktor@dc.gov]
Sent: Tuesday, February 13, 2007 3:34 PM
To: Pacifico, Frank (DDOT); Schaefer, James (MPD)
Subject: FW: Money collected - vehicle permits

Attachments: Vehicle_Permits_02_12_2007 with summary.xls

Vehicle_Permits_02_12_2007 wit...

The $$$figures

-----Original Message-----
From: Mehra, Vinay (OCTO)
Sent: Tuesday, February 13, 2007 3:27 PM
To: Marcou, Matthew (DDOT)
Cc: Wiktor, Denise (DDOT); Tonjes, Chris (OCTO)
Subject: RE: Money collected - vehicle permits

Dear Matthew:

I had Anand modify the weekly vehicle report to add columns for the permit type and paid date.

Please see the first tab in the attached work book - this summarizes the data based on your criteria below. The individual permits that contribute to this are highlighted in the second tab - I sorted the excel file to get this. I hope this helps.

I agree with the need to get a reporting function added to WEPS. We will keep this in the roadmap so that we discuss it when we review prioirities. With the latest round of bridge procurements, we are continuing to give Excavations first priority.

Best regards,

Vinay
301-257-7999 cell

-----Original Message-----
From: Marcou, Matthew (DDOT)
To: Mehra, Vinay (OCTO)
Cc: Wiktor, Denise (DDOT)
Sent: 2/13/2007 9:55 AM

Dear Vinay:

There is another request we have for data from the WEPS system (another reason why we need access to the data as soon as possible). We need to know how much money was collected through the WEPS system for the following:

FROM OCTOBER 1, 2005 THROUGH SEPTEMBER 30, 2006

Annual tags issued
Special haul permits issued

Sincerely,
Matthew Marcou

Strategic Planning Office
Public Space Management Administration
District Department of Transportation
2000 14th St NW 5th floor
202-478-1448 Desk
202-478-1454 Fax

Permit Type	Total Permit Fee for Issued Permit	Start date	End date
Annual Tags	$1,328,163	4/26/2006	9/30/2006
Single Haul	$6,708	4/26/2006	9/30/2006
Total	**$1,334,871**		

First issue date in WEPS 4/26/2006