

MR 509
Permit No. 22-18794-06

Office Use Only

State of Ohio
Department of Transportation
Permit

County or Jurisdiction FRA
Rte SR317
Log Pt 2.15-2.69
Acc Cat

[1] Subject to all terms, conditions, and restrictions printed, written below and on the reverse side hereof, or attached,

Name: Exxcel
Address: 328 Civic Center Drive Columbus OH 43215
Company Phone: 614-621-4500

is hereby granted a permit under Section 5515.01 and 5515.02 of Ohio Revised Code, and permission to perform work necessary in the manner described and at the location indicated in the following or attached to this permit.

Other - (see attached sheets)

Description of Work: ##DescOfWork##

[2] This permit shall be in the possession of employees /agents of permittee on site at all times who are in charge of the work and shall be shown, upon request, to any employee of the Department of Transportation.

Contact ODOT Representative 3 days before work begins, also contact ODOT Representative when work is completed for final inspection.

Failure to notify the ODOT Representative could result in work stoppage!

[3] No work authorized by this permit shall begin until the permittee has contacted and received instructions from

ODOT Representative

Phone

Email Address:

614-387-2331

(Authorized ODOT Employee)

NOTE: Any work performed by the permittee may be stopped if this requirement is not met.

[4] Prior to any excavation in the highway right-of-way, the Ohio811, <https://www.oups.org/excavators>, must be contacted in accordance with ORC Section 3781.25 to 3781.32. Ohio811 can be reached at 1-800-362-2764 or 811.

[5] If your utility is above ground in any way, you must mark your utility with a fluorescent colored marker that corresponds with the universal OUPS color code. The marker must be no shorter than six feet in height and you must maintain the marker. Guide wires must be marked a fluorescent yellow. Failure to mark as described, will result in the Department of Transportation being held harmless and no reimbursement for damage to your property.

[6] All work requiring persons or vehicles within ODOT right of way shall comply with all applicable requirements of the Ohio Manual of Uniform Traffic Control Devices and Item 614 (Maintaining Traffic) of the Construction and Material Specifications, latest editions. Failure to comply with these requirements will be cause for immediate revocation or suspension of the permit until the proper traffic control devices have been provided.

[7] The permittee accepts the conditions, terms, and requirements printed, written on, or attached to this permit and understands that failure to comply fully with those conditions, terms, and requirements or any change in the use of the permit inconsistent with its terms and conditions will be considered a violation and cause for suspension, revocation, or annulment of the permit thereby rendering the permit illegal and subject to appropriate Department action, up to an including removal of the installation at the permittee's expense.

[8] Performance Bond Required? ☒ Yes ☐ No Company _____
Effective Date _____ Expiration Date _____ Amount \$ 100,000

[9] This permit shall be void if the work described herein does not comply with the conditions, terms, and requirements applicable to this permit, and if the work is not completed by 12/13/2023

Dated 06/12/2023

Rev 5/6/2021

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General Provisions Applicable to All Permits
(Sections 5515.01 and 5515.02 of O.R.C.)

- [1] This permit is not a substitute for satisfying the rights or obligations of any other party who may have an interest in the underlying fee interest.
- [2] The granting of this permit does not convey to the permittee or to the property served any rights, title, or interest in state highway rights of way or in the design or operation of the state highway; or in any way abridge the right of the Director of the Department of Transportation in his jurisdiction over state highways. If, in the process of any future work or for the benefit of the traveling public, it becomes necessary, in the opinion of the Director of Transportation to order the removal, reconstruction, relocation, or repair of any of the fixtures, or work performed under this permit, said removal, reconstruction, relocation, or repair shall be wholly at the expense of the owners thereof or the permittee and be made as directed by the Director of Transportation and within the time determined by the Director. Such changes in the state highway design or operation, necessary for improved safety and operation or for the benefit of the traveling public, shall not require a permit modification since the permit confers no private rights to the permittee over the control of the state highway.
- [3] The District Deputy Director acts for and on behalf of the Director in issuing and carrying out the provisions of all permits. The District Deputy Director has full authority to ensure that all provisions of the permit are met and to reject any materials, design, and workmanship that do not meet applicable Department standards. The District Deputy Director, at his/her discretion, may require a performance bond or certified check as a prerequisite to the issuance of a permit.
- [4] Failure on the part of the permittee to comply fully with the provisions and conditions of the permit will be cause for suspension, revocation, or annulment of the permit thereby rendering the permit illegal and subject to appropriate Departmental action. By accepting the permit, the permittee agrees to comply with all conditions, terms, and restrictions printed or written on or attached to the permit. If the permittee or its agent performs any work contrary to the conditions of the permit or to the instructions of the District Deputy Director and, after due notice, fails to correct the problem, the Department of Transportation may, with or without notice, correct or remove such work and the permittee shall reimburse the Department for the costs and shall hold the Department harmless for all results of such work.
- [5] The permittee shall indemnify and hold harmless the State of Ohio, Department of Transportation, its officers, representatives and assigns, from any and all loss, liability, damages, litigation costs, and claims for injury or death to any person, property, or business caused by or resulting from any act, omission, event, consequence, or occurrence, negligent or otherwise of the permittee, its employees, agents, or assigns as a result of the issuance of this permit.
- [6] All work authorized under the permit shall be performed to the Department's satisfaction, and the entire expense shall be borne by the permittee. No work shall be performed until the permittee has contacted the Department's appointed representative named on the permit and received instructions. The Department's representative may inspect all work covered by the permit, or the Department reserves the right, during the time any or all of the work is being performed, to appoint an inspector over the work who shall represent the interest of the State on the work and any compensation arranged for shall be paid wholly by the permit holder. Work not in compliance shall be halted and the District Deputy Director shall be notified of the cause. The permittee shall be notified of the Department's determination and given an opportunity to correct the problem. If the problem is not corrected timely or to the satisfaction of the Department, this permit will be revoked.
- [7] Failure to complete all work within the time specified on the permit shall void the permit, thereby making the permit illegal and subject to appropriate Departmental action. The permittee may request an extension in writing from the District Office, explaining why the extension is necessary and when the work is expected to be completed.
- [8] All work infringing on the pavement or shoulders shall comply with applicable standards and requirements regarding traffic control devices. Failure to comply will be cause for revocation or suspension of the permit. Any closure of lanes or shoulders shall be described in terms of location, duration, time of day, etc. Such work shall not begin until all traffic control devices are in place.

[9] If any grading, sidewalk, or other work allowed by a permit interferes with the drainage of the highway in any way, such catch basins and outlets as necessary shall be constructed to take proper care of said drainage and any materials such as pipes and tiles damaged during any installation or repair by the permittee or its employees or agents shall be repaired immediately at the sole cost of the permittee. Permittee shall timely notify the Department of any such damage and repairs thereto. Failure of the permittee to immediately repair the damage after it is discovered shall result in the Department performing the repair and the permittee shall reimburse the Department for the costs and shall hold the Department harmless for all the results of such work which may include removal of the permittee's facilities.

[10] Any damage to ODOT or another's property caused by the work shall be repaired by the permittee or permittee's agent or contractor in a timely manner and at the sole cost of permittee. If any emergency repairs to ODOT property are needed that cannot be performed by the permittee or permittee's agent or contractor, ODOT shall cause the repairs to be performed at the sole cost of permittee.

[11] Upon completion of the work, the permittee shall leave the highway clean of all rubbish, excess materials, temporary structures and equipment, and all parts of the highway shall be left in a condition acceptable to the Department. Upon satisfactory completion of the work authorized by the permit, the Department's appointed representative shall complete the Permit Inspection Certificate, Form No. MR 678 certifying that the permittee has complied with the terms of the permit.

[12] Except as herein authorized, no excavation shall be made or obstacle placed within the limits of the highway so as to interfere with the travel over the road.

[13] All pole lines are to be built in accordance with Rule 4901:3-1-08 of Ohio Administrative Code promulgated and enforced by the Public Utilities Commission of Ohio.

[14] All underground utilities shall be installed at a depth and horizontal distance from the road surface and any appurtenances in accordance with state and national safety standards and as pre-approved by the Department. After installation, the exact location of the utility shall be provided to the Department. The Department shall be held harmless for any damage to utilities due to insufficient or inaccurate installation or identification and all repairs shall be at the sole cost of the permittee.

[15] The permittee shall comply with the Air Pollution requirements of Rule 3745-17-08 of the Ohio Administrative Code promulgated and enforced by the Ohio Environmental Protection Agency.

[16] The permittee certifies that he or she is fully authorized to sign this permit. This permit shall apply to and be binding upon the permittee and any successors in interest. No change in ownership of the underlying property or of the facility owned by permittee shall in any way alter the permittee's obligations under this permit.

[17] The permittee(s) for herself/himself/themselves/itself, her/his/their/its personal representatives, and her/his/their/its successors in interest and assigns, as a part of the consideration hereof, do/does hereby covenant and agree that:

(1) No person on the grounds of race, color, or national origin, shall be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination in the use of the utility/facilities/ services of the permittee.

(2) In the construction of any improvements on, over, or under the above described property and the furnishing of services thereon, no person on the grounds of race, color, national origin, sex, age, or disability shall be excluded from the participation in, be denied the benefits of, or be otherwise subjected to discrimination.

(3) The above described property shall be used in a manner that at all times is in compliance with all other requirements imposed by or pursuant to Title 49, Code of Federal Regulations, U.S. DOT, Subtitle A, Office of the Secretary, Part 21, Non-discrimination in Federally-assisted programs of the U.S. DOT — Effectuation of Title VI of the Civil Rights Act of 1964, and as said Regulations may be amended.

(4) In the event that this instrument grants a lease, license, or permit and any of the above non-discrimination covenants is breached, then the State of Ohio, Department of Transportation, shall have the unfettered right to terminate the lease, license or permit and to re-enter and repossess the above-described property and hold the same as if said lease, license or permit had never been made or issued.

This permit is granted subject to the following attached conditions:

Permit approved as per plans and specifications are attached.

There is a 100,000 bond attached to this work. This bond will be released after a final inspection is complete.

Bond #GM222586

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TYPICAL APPLICATIONS FOR MAINTENANCE OF TRAFFIC

THE FOLLOWING TYPICAL APPLICATION(S) FROM THE 2012 EDITION OF THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES & ODOT OFFICE OF ROADWAY ENGINEERING STANDARD CONSTRUCTION DRAWINGS SHOULD BE USED, AS NECESSARY, FOR TRAFFIC CONTROL ON THIS PROJECT AS DESCRIBED IN THE MANUAL:

- PER PLAN WITH MODIFICATION AT STATION 124+00 IN PHASE 2 MOT SHEET 13/72. ALL BLUNT ENDS WITHIN THE CLEAR ZONE OF TRAFFIC SHALL BE PROTECTED, ADD IMPACT ATTENUATOR.
- APPROVAL FOR SECTIONS OF SR317 WITHIN ODOT JURISDICTION.

PERMITS:

THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL REQUIRED PERMITS IN ADVANCE OF ANY WORK BEING DONE IN ALL LOCAL AGENCIES RIGHT OF WAY BY THE CONTRACTOR OR SUB-CONTRACTORS.

LANES OPEN DURING HOLIDAYS AND SPECIAL EVENTS

NO WORK SHALL BE PERFORMED AND THE SAME NUMBER OF LANES AS WERE AVAILABLE AT THE START OF THE PROJECT SHALL BE OPEN TO TRAFFIC DURING THE FOLLOWING DESIGNATED HOLIDAYS OR SPECIAL EVENTS:

HOLIDAYS

NEW YEAR'S (OBSERVED)
TOTAL SOLAR ECLIPSE (4/8/24)
MEMORIAL DAY
FOURTH OF JULY (OBSERVED)

LABOR DAY
GENERAL/REGULAR ELECTION DAY (NOV)
THANKSGIVING
CHRISTMAS (OBSERVED)

THE PERIOD OF TIME THAT THE LANES ARE TO BE OPEN DEPENDS ON THE DAY OF THE WEEK ON WHICH THE HOLIDAY OR SPECIAL EVENT FALLS. THE FOLLOWING SCHEDULE SHALL BE USED TO DETERMINE THIS PERIOD:

DAY OF HOLIDAY OR SPECIAL EVENT	TIME ALL LANES MUST BE OPEN TO TRAFFIC
SUNDAY	12:00 NOON FRIDAY THROUGH 6:00 AM MONDAY
MONDAY	12:00 NOON FRIDAY THROUGH 6:00 AM TUESDAY
MONDAY (TOTAL SOLAR ECLIPSE)	12:00 NOON FRIDAY THROUGH 6:00 AM WEDNESDAY
TUESDAY	12:00 NOON MONDAY THROUGH 6:00 AM WEDNESDAY
TUESDAY (GEN./REG. ELECTION)	5:00 AM TUESDAY THROUGH 12:00 AM WEDNESDAY
WEDNESDAY	12:00 NOON TUESDAY THROUGH 6:00 AM THURSDAY
THURSDAY	12:00 NOON WEDNESDAY THROUGH 6:00 AM FRIDAY
THANKSGIVING	6:00 AM WEDNESDAY THROUGH 6:00 AM MONDAY
FRIDAY	12:00 NOON THURSDAY THROUGH 6:00 AM MONDAY
SATURDAY	12:00 NOON FRIDAY THROUGH 6:00 AM MONDAY

SPECIAL EVENTS

DURING THE SAME PERIODS, MAINTAIN PEDESTRIAN ACCESS IF PEDESTRIAN ACCESS WAS PRESENT PRIOR TO CONSTRUCTION.

NO EXTENSIONS OF TIME SHALL BE GRANTED FOR DELAYS IN MATERIAL DELIVERIES, UNLESS SUCH DELAYS ARE INDUSTRY WIDE, OR FOR LABOR STRIKES, UNLESS SUCH STRIKES ARE AREA WIDE.

NOTIFICATION OF TRAFFIC RESTRICTIONS

THROUGHOUT THE DURATION OF THE PROJECT, THE CONTRACTOR SHALL NOTIFY THE COUNTY MANAGER, THE DISTRICT 6 PUBLIC INFORMATION OFFICE AT D06.PIO@DOT.OHIO.GOV AND THE DISTRICT WORK ZONE TRAFFIC MANAGER AT D06.MOT@DOT.OHIO.GOV IN WRITING OF ALL TRAFFIC RESTRICTIONS AND UPCOMING MAINTENANCE OF TRAFFIC CHANGES. THE CONTRACTOR SHALL ENSURE THE WRITTEN NOTIFICATION IS SUBMITTED IN A TIMELY MANNER TO ALLOW THE PROJECT ENGINEER TO MEET THE REQUIRED TIME FRAMES SET FORTH IN THE TABLE BELOW TO INFORM SPECIAL HAULING PERMITS SECTION (HAULING.PERMITS@DOT.OHIO.GOV) AND THE DISTRICT PUBLIC INFORMATION OFFICE (PIO). THIS NOTIFICATION SHALL BE RECEIVED BY THE PROJECT ENGINEER PRIOR TO THE PHYSICAL SETUP OF ANY APPLICABLE SIGNS OR MESSAGE BOARDS.

INFORMATION SHOULD INCLUDE BUT IS NOT LIMITED TO ALL CONSTRUCTION ACTIVITIES THAT IMPACT OR INTERFERE WITH TRAFFIC AND SHALL LIST THE SPECIFIC LOCATION, TYPE OF WORK, ROAD STATUS, DATE AND TIME OF RESTRICTION, DURATION OF RESTRICTION, NUMBER OF LANES MAINTAINED, NUMBER OF LANES CLOSED, MINIMUM VERTICAL CLEARANCE, MINIMUM WIDTH OF DRIVABLE PAVEMENT, DETOUR ROUTES IF APPLICABLE, AND ANY OTHER INFORMATION REQUESTED BY THE PROJECT ENGINEER.

NOTIFICATION TIME FRAME TABLE			
ITEM	DURATION OF CLOSURE	NOTIFICATION DUE TO DISTRICT 6 COMMUNICATIONS OFFICE	SIGN DISPLAYED TO PUBLIC
RAMP & ROAD CLOSURES	>= 2 WEEKS	21 CALENDAR DAYS PRIOR TO CLOSURE	14 CALENDAR DAYS PRIOR TO CLOSURE
	> 12 HOURS & < 2 WEEKS	14 CALENDAR DAYS PRIOR TO CLOSURE	7 CALENDAR DAYS PRIOR TO CLOSURE
	<=12 HOURS	4 BUSINESS DAYS PRIOR TO CLOSURE	2 BUSINESS DAYS PRIOR TO CLOSURE
LANE CLOSURES & RESTRICTIONS	>= 2 WEEKS	14 CALENDAR DAYS PRIOR TO CLOSURE	
	< 2 WEEKS	5 BUSINESS DAYS PRIOR TO CLOSURE	
START OF CONSTRUCTION & TRAFFIC PATTERN CHANGES	N/A	14 CALENDAR DAYS PRIOR TO IMPLEMENTATION	

ANY UNFORESEEN CONDITIONS NOT SPECIFIED IN THE PLANS REQUIRING TRAFFIC RESTRICTIONS SHALL ALSO BE REPORTED TO THE COUNTY MANAGER, THE DISTRICT 6 PUBLIC INFORMATION OFFICE AND THE DISTRICT WORK ZONE TRAFFIC MANAGER USING THE NOTIFICATION TIME FRAME TABLE.

APPLICANT SHALL FILL OUT AND SUBMITTED TO PIO & DWZTM *ODOT DISTRICT SIX - PERMIT AND LOCAL LET CLOSURE AND RESTRICTION* FORM EXCEL WHEN NOTIFYING THEM OF THE UPCOMING TRAFFIC RESTRICTION.

MUD, DIRT AND DEBRIS

THE TRACKING OR SPILLAGE OF MUD, DIRT OR DEBRIS UPON STATE HIGHWAYS IS PROHIBITED AND ANY SUCH OCCURRENCE SHALL BE CLEANED UP IMMEDIATELY BY THE CONTRACTOR.

PERSONAL PROTECTIVE EQUIPMENT

ODOT REQUIRES ALL CONTRACTORS' PERSONNEL TO WEAR THE CORRECT PPE WHILE WITHIN ODOT RIGHT-OF-WAY. ALL VEHICLES SHALL HAVE THE CORRECT SAFETY EQUIPMENT ALSO.

BORE PITS, EARTHWORK AND TRENCHES BEYOND THE SHOULDER

BORE PITS, EARTHWORK AND TRENCHES WITHIN ODOT RIGHT-OF-WAY MUST BE OUTSIDE OF THE DITCH SECTION AND PROTECTED IN ACCORDANCE WITH ODOT'S STANDARD CONSTRUCTION DRAWING MT-101.90. "DROPOFFS IN WORK ZONES".

- A PIT/TRENCH 4 TO 12 FEET FROM THE EDGE OF TRAVELED LANE AND GREATER THAN 12 INCHES DEEP MUST HAVE DRUMS DURING THE DAY AND PCB AT NIGHT UNLESS SECURELY PLATED OR BACKFILLED TO WITHIN 12 INCHES. SEE PIS 2010190 FOR ADDITIONAL INFORMATION.
- A PIT/TRENCH 12 TO 30 FEET FROM THE EDGE OF TRAVELED LANE AND GREATER THAN 24 INCHES DEEP MUST HAVE DRUMS DURING THE DAY AND PCB AT NIGHT UNLESS SECURELY PLATED OR BACKFILLED TO WITHIN 24 INCHES. SEE MT-101.90 FOR ADDITIONAL INFORMATION.

THE LENGTH OF THE TRENCH WHICH IS OPEN AT ANY ONE TIME SHALL BE HELD TO A MINIMUM AND SHALL AT ALL TIMES BE SUBJECT TO APPROVAL OF THE ENGINEER.

VEHICLE PARKING

VEHICLES ARE NOT TO BE PARKED ON THE PAVEMENT. ALL VEHICLES ARE TO BE PARKED PER CMS 614.035 - *STORAGE OF EQUIPMENT, VEHICLE AND MATERIAL ON HIGHWAY RIGHTS OF WAY*.

PROTECTION FROM DROP OFF CONDITIONS IN THE WORK ZONE

ALL DROP-OFF CONDITIONS WITHIN THE WORK ZONE MUST BE PROTECTED IN ACCORDANCE WITH STANDARD CONSTRUCTION DRAWING MT-101.90.

GENERAL LANE CLOSURE POLICIES

TRAFFIC BACK-UPS CAUSED BY THEIR OPERATION OF OVER 0.75 MILES IN LENGTH ANY TIME IS NOT PERMITTED.

ODOT RESERVES THE RIGHT TO REVOKE THE PERMIT IF THE MOT GUIDELINES ARE NOT MET.



Ohio Department of Transportation District Six
Permit and Local Let
Closure and Restriction Notification Form



* Indicates a Mandatory Field

* Permit Number

* County

City

[Find](#) Coordinates

* Road (SR, US, or I-)

* Road Status

Type of work

* Work completed by

Maintenance of Traffic (MOT)

* Your Name

* Your Email

* Your Phone Number

Your Cell Phone Number

* Traffic Restriction Start Date/Time

* Date

* Time

* Traffic Restriction Completion Date/Time

* Date

* Time

* Are Restrictions 24-hours a Day

☒ No ☐ Yes

please clarify below in the description

Start Mile Marker (SLM)

* Closest Intersecting Road

End Mile Marker (SLM)

* Closest Intersecting Road

* Direction

* Lanes of Traffic Maintained

Include total number of lanes available
(E.G. 1 of 2 lanes maintained) If project has both directions specify for each

* Person Responsible for work

(This is the contact name for the person on site E.G. contractor or permit holder)

* On Site Phone Number (with area code)

* Description of Work

The following information is additional required information for special hauls.

* Lane Closure/Restrictions

If there is a restriction, specify available lane width

Available Lane Width (edge line to edge line)

Feet: Inches:

Available Pavement Width

Feet: Inches:

* Ramp Closure/Restrictions:

If there is a restriction, specify available lane width

Available Lane Width (edge line to edge line)

Feet: Inches:

Available Pavement Width

Feet: Inches:

Bridge Work

Vertical Bridge Clearance

Feet: Inches:

Available Roadway Width

Feet: Inches:

* Bridge Direction

* Listed Detour if Applicable: (if not applicable state N/A)

Additional Closure/Restriction Information:

* What type of Traffic control is being utilized? (e.g. portable barrier, drums, temp signal, flaggers etc.)

* What standard construction drawings are being used and/or Typical Applications (TAs) If SCD or TAs are not applicable MOT drawings must be attached

* Who will be setting up the Traffic control? (List name of contractor or subcontractor and contact number.)

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PAVEMENT WIDENING TO ACCOMMODATE THE ADDITION OF A 425' WESTBOUND LEFT TURN LANE AND AN 800' EASTBOUND RIGHT TURN LANE ON LONDON-GROVEPORT RD (SR-317) ALONG WITH THE INSTALLATION OF A TRAFFIC SIGNAL AND PEDESTRIAN CROSSINGS AT THE LONDON-GROVEPORT RD - LASALLE DR INTERSECTION ALONG WITH THE INSTALLATION OF A 5' SIDEWALK AND EMERGENCY ACCESS DRIVE ALONG LOCKBOURNE RD.

EXXCEL PROJECT MANAGEMENT
328 CIVIC CENTER DRIVE
COLUMBUS, OHIO 43215
CONTACT: JEFF WIATER
PHONE: (614) 621-4500
EMAIL: JWIATER@EXXCEL.COM

LONDON GROVEPORT ROAD STS, LLC
C/O PINCHAL & COMPANY
4400 POST OAK PARKWAY, SUITE 2350
HOUSTON, TX 77027
CONTACT: BRIAN MCMACKIN
PHONE: (713) 961-4488
FAX: (713) 961-4487
EMAIL: BRIAN@PINCHAL-CO.COM

BEARINGS ARE BASED ON THE CENTERLINE OF LONDON-GROVEPORT ROAD BETWEEN FCGS #5848 AND A RAILROAD SPIKE FOUND BEARING S 86°28'29" E AT 2332.37 FEET OBSERVED, AS REFERENCED TO THE OHIO STATE PLANE COORDINATE SYSTEM, SOUTH ZONE, NAD83 (2011) AS ESTABLISHED BY GPS OBSERVATIONS USING THE ODOT VRS SYSTEM.

OHIO STATE PLANE COORDINATE SYSTEM, SOUTH ZONE, NAD83 (2011) REFERENCED TO SAID COORDINATE SYSTEM BY GPS OBSERVATIONS OF SELECTED STATIONS IN THE OHIO DEPARTMENT OF TRANSPORTATION VIRTUAL REFERENCE STATION NETWORK.

H-1	5/8-INCH IRON PIN WITH CAP MARKED "ROLLING & HOCEVAR" N = 667319.141 E = 1839241.047
H-2	5/8-INCH IRON PIN WITH CAP MARKED "ROLLING & HOCEVAR" N = 667185.477 E = 1840500.535

NAVD88 [REFERENCED TO NAD83 (2011) AND GEOID2018] BY GPS OBSERVATIONS OF
SELECTED STATIONS IN THE OHIO DEPARTMENT OF TRANSPORTATION VIRTUAL
REFERENCE STATION NETWORK.

TBM #1 TOP OF CASTING EX. SANITARY MANHOLE LOCATED AT THE NORTHEAST CORNER OF THE INTERSECTION OF LASALLE DRIVE AND LONDON-GROVEPORT ROAD.
ELEVATION = 733.16

TBM #2 TOP OF CASTING OF THE WESTERLY EX. SANITARY MANHOLE LOCATED AT THE TUNNEL SHAFT COMPOUND AREA.
ELEVATION = 732.28

TBM #3 5/8-INCH IRON PIN WITH CAP MARKED "ROLLING & HOCEVAR"
ELEVATION = 727.92

THIS PROJECT IS LOCATED IN FLOOD ZONE X WITHIN FIRM PANEL NUMBER 39049C0429K
WITH AN EFFECTIVE DATE OF 6/17/2008.

DESIGN ENGINEER:
MICHAEL W. RAUBENOLT, PE
MRAUBENOLT@STRUCTUREPOINT.COM
PHONE: 614-901-2235

PLAN PREPARED BY:



AMERICAN
STRUCTUREPOINT
INC.

2550 CORPORATE EXCHANGE DR, STE 300
COLUMBUS, OH 43231
TEL 614.901.2235 FAX 614.901.2236
www.structurepoint.com

XXXXXX

SIGNED:

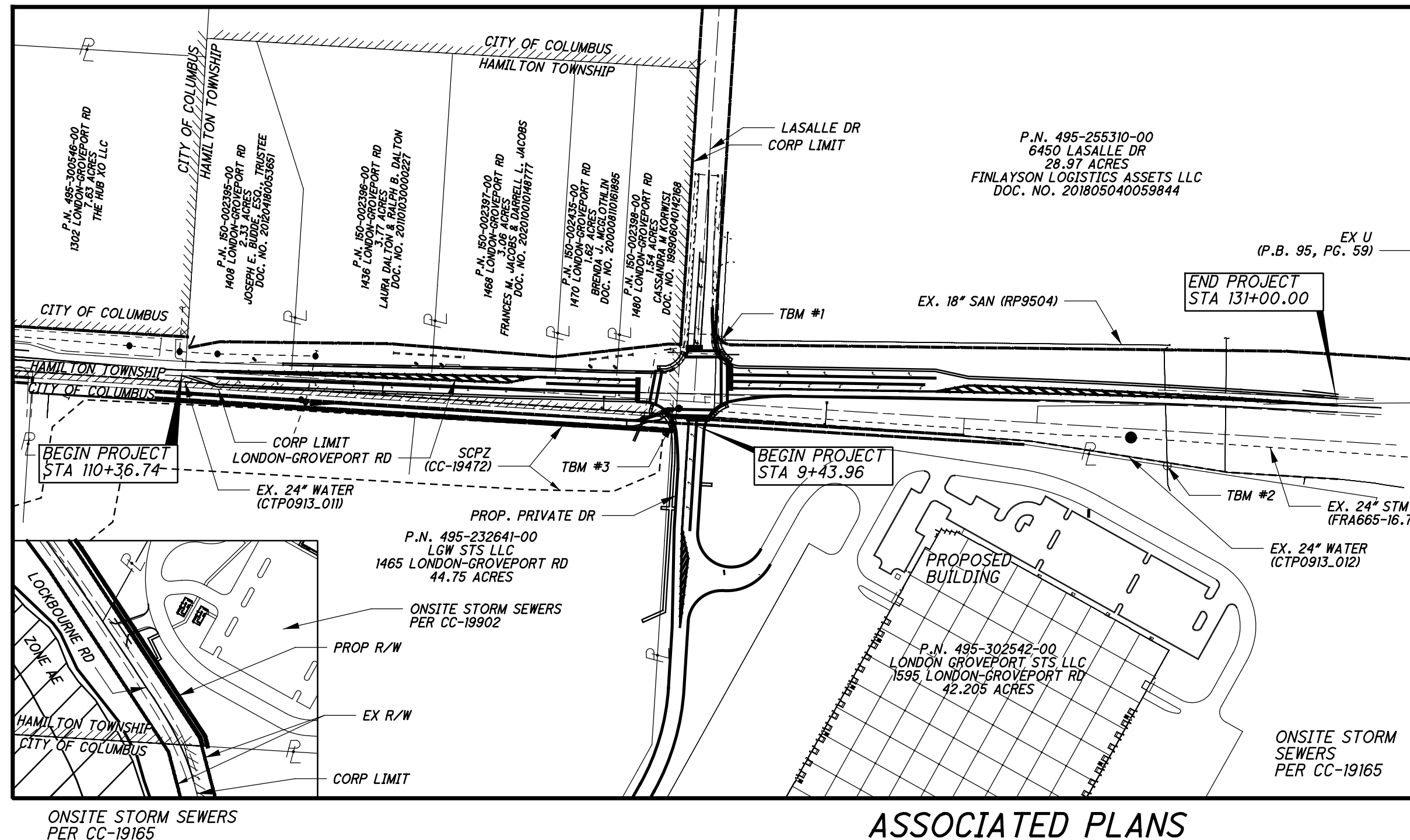
DATE: _____

FROM 925' WEST OF LASALLE DR

TO 1000' EAST OF LASALLE DR

FROM 2300' SOUTH OF LONDON-GROVEPORT RD

TO 2025' SOUTH OF LONDON-GROVEPORT RD



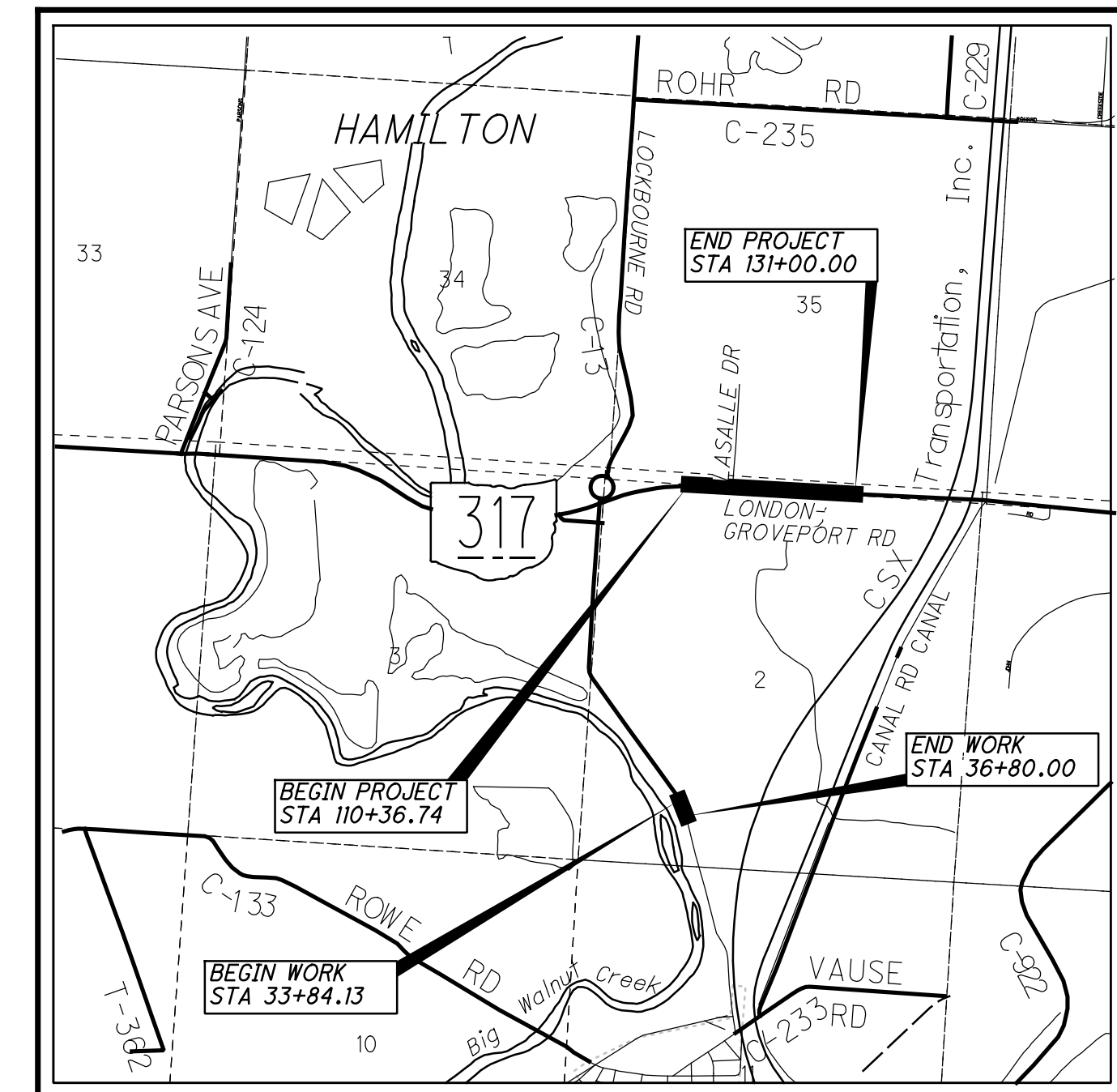
FINAL SITE COMPLIANCE PLAN	20345-530, 21345-556, & 22345-00491
WATER PLANS	WSP-6506, WSP 5721, DOW# 22-115, & 23-007
STORM SEWER PLAN	CC-19165 & CC-19902
ODOT PERMIT #:	22-18794

TOTAL SITE AREA:	4.35 ACRES
LIMITS OF DISTURBANCE AREA WITHIN R.O.W.:	2.64 ACRES
PRE DEV. IMPERVIOUS AREA:	1.71 ACRES
POST DEV. IMPERVIOUS AREA:	2.50 ACRES
OEPA NOI #:	46C07838*AG

DEVELOPMENT NAME: LONDON GROVEPORT ROAD SPEC 1
ZONING CASE NUMBER: Z95-030
ZONING ADDRESS: 1594 LONDON-GROVEPORT ROAD
CITY COUNCIL ORDINANCE NUMBER: 0978-95

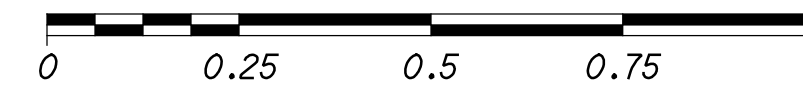
**WATER QUALITY DETENTION AND WATER QUALITY TREATMENT ARE ADDRESSED AND ACCOUNTED FOR UNDER PLAN STORM CC-19165.*

COLUMBUS STANDARD CONSTRUCTION DRAWINGS						ODOT STANDARD CONSTRUCTION DRAWINGS		COLUMBUS SUPPLEMENTAL SPECIFICATIONS		
1441	7/1/22	2300	7/1/21	4162	7/1/20	AA-S102	BP-3.1	1/21/22	SS-1611	2/1/13
1500	9/15/15	2303	7/1/21	4163	7/1/21	AA-S104	BP-5.1	7/15/22	SS-1630	11/13/03
1550	9/15/15	2310	7/1/22	4164	10/1/20	AA-S119	MGS-1.1	7/16/21	MIS-1	
2000	3/30/18	2319	7/1/22	4170	7/1/21	AA-S125B	MGS-2.1	1/19/18	MIS-2	
2020	7/1/21	4020	5/1/14	4200	8/1/15	AA-S128	MGS-4.3	1/18/13	MIS-3	
2130	7/1/22	4021	7/1/20	4202	8/10/17	AA-S149	MT-97.10	4/19/19	MIS-4	
2135	7/1/22	4022	7/1/20	4205	5/1/14	AA-S150	MT-101.70	1/17/20	MIS-54	
2161	4/30/18	4051	5/1/14	4230	10/1/18	AA-S151	MT-101.75	1/17/20	MIS-59	
2179	7/1/20	4101	8/10/17	4253	5/1/14	AA-S165	MT-101.90	7/17/20	MIS-403	
2185	7/1/22	4105	8/10/17	4330	8/10/17	AA-S168			MIS-500	
2202	7/1/22	4110	10/1/18	4331	5/1/14				MIS-601	MIS-900
2230	4/30/18	4160	10/1/18						MIS-700	MIS-902



LATITUDE: N 39°49'53" LONGITUDE: W 82°57'36"

SCALE IN MILES



PORTIONS TO BE IMPROVED

THE CITY OF COLUMBUS CONSTRUCTION AND MATERIALS SPECIFICATIONS (CMSC), 2018 EDITION, INCLUDING ALL REVISIONS AND SUPPLEMENTS IN EFFECT AT THE TIME OF SIGNATURE BY THE DIRECTOR OF PUBLIC SERVICE, SHALL GOVERN ALL CONSTRUCTION ITEMS THAT ARE A PART OF THIS PLAN UNLESS NOTED OTHERWISE.

CITY OF COLUMBUS SIGNATURES ON THIS PLAN SIGNIFY ONLY CONCURRENCE WITH THE GENERAL PURPOSES AND GENERAL LOCATION OF THE PROJECT. ALL TECHNICAL DETAILS REMAIN THE RESPONSIBILITY OF THE ENGINEER PREPARING THE PLANS.

CITY ENGINEER/ADMINISTRATOR DIVISION OF DESIGN AND CONSTRUCTION	DATE
ADMINISTRATOR, DIVISION OF POWER	DATE
ADMINISTRATOR, DIVISION OF SEWERAGE AND DRAINAGE	DATE
ADMINISTRATOR, DIVISION OF WATER	DATE
DIRECTOR, DEPARTMENT OF RECREATION AND PARKS	DATE
FIRE PREVENTION BUREAU, DIVISION OF FIRE	DATE

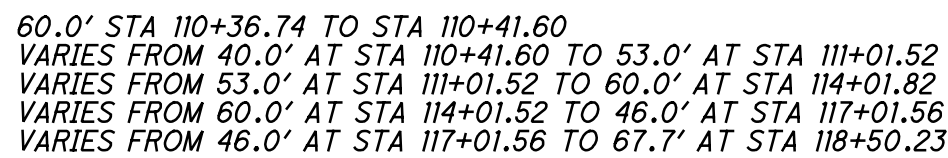
SIGNATURES BELOW SIGNIFY ONLY CONCURRENCE WITH THE GENERAL PURPOSE AND LOCATION OF THE PROJECT. ALL TECHNICAL DETAILS REMAIN THE RESPONSIBILITY OF THE ENGINEER PREPARING THE PLANS. APPROVAL ON THE PART OF FRANKLIN COUNTY ENGINEER'S OFFICE IS GIVEN FOR WORK WITHIN FRANKLIN COUNTY R/W ONLY.

FRANKLIN COUNTY ENGINEER	DATE
FRANKLIN COUNTY CHIEF DEPUTY ENGINEER	DATE

REF NO.	REVISION DESCRIPTION	SHEET(S)	INITIAL	DATE



3916-E



- 4

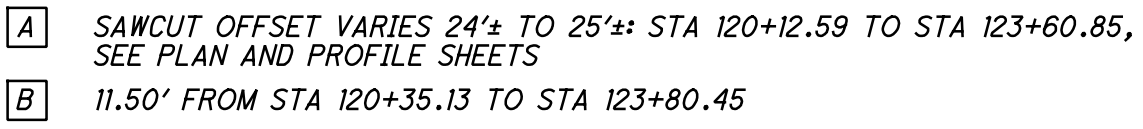
- 5

- 12

- (20)

NOTE:
IF IT IS DETERMINED THAT DURING CONSTRUCTION THAT THE EXISTING SUBGRADE ELEVATION IS LOWER THAN THE PROPOSED WIDENING SUBGRADE ELEVATION, THE PROPOSED SUBGRADE ELEVATION SHOULD BE LOWERED TO MATCH THE EXISTING SUBGRADE ELEVATION.
THE BASE AND CURB MATERIAL MAY BE THICKENED TO MAKE UP THE DIFFERENCE IN DEPTH. THE BASE UNDER THE WIDENING SHOULD BE SLOPED AWAY FROM THE EXISTING PAVEMENT AND DRAINAGE PROVIDED.

WHEN REMOVING PAVEMENT, REPLACE UNTIL FULL DEPTH PAVEMENT IS ENCOUNTERED UNDER EXISTING PAVEMENT.



- A SEE PLAN AND PROFILE SHEET 32 FOR BEGIN AND END TRANSITIONS
FROM PROPOSED MGS TO EXISTING TYPE 5 GUARDRAIL
- B VARIES 12' TO 0'; STA 123+80.45 TO STA 124+40.66
- C 12' FROM STA 123+80.45 TO STA 124+40.66
VARIES 12' TO 0'; STA 124+40.66 TO STA 131+00.00
- D SAWCUT OFFSET VARIES:
24'± TO 23'±: STA 123+60.85 TO STA 123+85.85
23'± TO 15'±: STA 123+85.85 TO 124+46.30
15'± TO 12'±: STA 124+46.30 TO STA 125+01.26
12'±: STA 125+01.26 TO STA 129+50.00
SEE PLAN AND PROFILE SHEETS
- E 11.50' FROM STA 123+80.45 TO STA 125+64.76
- F FROM STA 123+80.45 TO STA 125+64.76

- 5 ITEM 304 - 6" AGGREGATE BASE
- 6 SAWCUT LINE
- 7 ITEM 659 - SEEDING AND MULCHING, CLASS 3B
ITEM 659 - SEEDING AND MULCHING, CLASS 1 (FOR SLOPES FLATTER THAN 3:1)
- 8 ITEM 605 - 4" PIPE UNDERDRAIN
- 9 NO. 8 OR NO. 57 AGGREGATE
- 10 ITEM 606 - GUARDRAIL, TYPE MGS
- 11 ITEM 204 - SUBGRADE COMPACTION

- 12 ITEM 254 - 1.5" PAVEMENT PLANING, ASPHALT CONCRETE
- 13 ITEM 411 - 6" STABILIZED CRUSHED AGGREGATE
- 14 ITEM 442 - 1.5" ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (448)
- 15 ITEM 442 - 1.75" ASPHALT CONCRETE INTERMEDIATE COURSE, 19MM, TYPE A (448)
- 16 ITEM 605 - AGGREGATE DRAIN
- 17 ITEM 254 - 2" PAVEMENT PLANING, ASPHALT CONCRETE
- 18 ITEM 442 - 2" ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (448)
- 19 ITEM 442 - 2.25" ASPHALT CONCRETE INTERMEDIATE COURSE, 19MM, TYPE A (448)

NOTE:
IF IT IS DETERMINED THAT DURING CONSTRUCTION THAT THE EXISTING SUBGRADE ELEVATION IS LOWER THAN THE PROPOSED WIDENING SUBGRADE ELEVATION, THE PROPOSED SUBGRADE ELEVATION SHOULD BE LOWERED TO MATCH THE EXISTING SUBGRADE ELEVATION.
IF THE EXISTING MATERIAL MAY BE THICKED TO MAKE UP THE DIFFERENCE IN DEPTH, THE BASE UNDER THE WIDENING SHOULD BE SLOPED AWAY FROM THE EXISTING PAVEMENT AND DRAINAGE PROVIDED.

WHEN REMOVING PAVEMENT, REPLACE UNTIL FULL DEPTH PAVEMENT IS ENCOUNTERED UNDER EXISTING PAVEMENT.

adocx 5/30/2023 3:36:03 PM \\O:\2022\00989\C Design\12345_Pro\Description_400-Engineering_Roadway_Sheets\00989_GN001.dgn

REFERENCE SPECIFICATIONS-

THE CITY OF COLUMBUS CONSTRUCTION AND MATERIALS SPECIFICATIONS (CMSC), 2018 EDITION INCLUDING ALL REVISIONS AND SUPPLEMENTS IN EFFECT AT THE TIME OF SIGNATURE BY THE DIRECTOR OF PUBLIC SERVICE, SHALL GOVERN ALL CONSTRUCTION ITEMS THAT ARE A PART OF THE PLANS UNLESS NOTED OTHERWISE.

ANY MODIFICATION TO THE WORK AS SHOWN ON THESE DRAWINGS MUST HAVE PRIOR WRITTEN APPROVAL BY THE CITY ENGINEER/ADMINISTRATOR, DIVISION OF DESIGN AND CONSTRUCTION, CITY OF COLUMBUS.

APPROVAL OF THIS PLAN IS CONTINGENT UPON ALL EASEMENTS REQUIRED FOR CONSTRUCTION OF THE IMPROVEMENT WORK, BE SECURED BY THE OWNER.

INSPECTION-

INSPECTION ON THIS PROJECT SHALL BE PROVIDED BY REPRESENTATIVES OF THE CITY OF COLUMBUS.

PRIOR TO CONSTRUCTION, THE DEVELOPER SHALL ENTER INTO A CONSTRUCTION AGREEMENT, POST SURETY AND DEPOSIT INSPECTION FEES WITH THE CITY OF COLUMBUS PUBLIC SERVICE DEPARTMENT FOR THE TOTAL ESTIMATED COSTS OF CONSTRUCTION IN ACCORDANCE WITH COLUMBUS CITY CODE SECTION 901.01.

THE CONTRACTOR SHALL NOTIFY THE CITY OF COLUMBUS DEPARTMENT OF PUBLIC SERVICE (614) 645-0433 AND DIVISION OF SEWERS AND DRAINS (614) 645-7102 AT LEAST 24 HOURS PRIOR TO CONSTRUCTION.

PERMITS-

THE CONTRACTOR IS TO OBTAIN ALL NECESSARY PERMITS. AN ORIGINAL PERMIT WITH RED SIGNATURES SHALL BE KEPT ONSITE AT ALL TIMES.

WHEN EXCAVATING WITHIN COLUMBUS PUBLIC RIGHT OF WAY LIMITS, THE CONTRACTOR SHALL OBTAIN AN EXCAVATION PERMIT FROM CITY OF COLUMBUS, DEPARTMENT OF PUBLIC SERVICE - PERMIT OFFICE BETWEEN THE HOURS OF 7:30 AM AND 4:00 PM MONDAY THROUGH FRIDAY.
PHONE: (614) 645-7497; FAX: (614) 645-1876
EMAIL: colspemrits@columbus.gov

FRANKLIN COUNTY PERMIT -
THE CONTRACTOR SHALL CONTACT UTILITIES COORDINATOR AT (614) 525-3063 TO SECURE A WRITTEN PERMIT FROM THE FRANKLIN COUNTY ENGINEER'S OFFICE, 970 DUBLIN RD, A MINIMUM OF FIVE WORKING DAYS PRIOR TO BEGINNING WORK WITHIN FRANKLIN COUNTY R/W. THE CONTRACTOR MAY BE REQUIRED TO POST A BOND WITH THE FRANKLIN COUNTY ENGINEER PRIOR TO ISSUANCE OF THE PERMIT TO INSURE PROPER RESTORATION OF THE PAVEMENT AND R/W. THE CONTRACTOR SHALL PROVIDE THE FRANKLIN COUNTY ENGINEER'S OFFICE A 24-HOUR TELEPHONE NUMBER TO BE USED IN CASE OF AN EMERGENCY.

UTILITIES-
THE IDENTITY AND LOCATION OF EXISTING UNDERGROUND UTILITIES LOCATED IN AND AROUND THE CONSTRUCTION AREA HAVE BEEN SHOWN AND LABELED ON THE PLANS BY USING INFORMATION PROVIDED BY THE RESPECTIVE UTILITY OWNERS. THE CITY OF COLUMBUS OR THE CONSULTING ENGINEER WILL NOT ASSUME RESPONSIBILITY FOR THE ACCURACY OF LOCATION OR DEPTH OF EXISTING UNDERGROUND UTILITIES AS SHOWN ON THE PLAN.

SUPPORT AND PROTECTION OF ALL UTILITIES AND APPURTENANCES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. COSTS FOR THE REPAIR AND RESTORATION OF EXISTING UTILITIES DAMAGED BY THE CONTRACTOR SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. THE CITY OF COLUMBUS UTILITIES WILL ONLY LOCATE AND MARK MAIN LINE FACILITIES. THE CONTRACTOR IS RESPONSIBLE FOR LOCATING ALL SERVICE LATERAL AND LINES. COSTS ASSOCIATED WITH THE ABOVE WORK AND RESPONSIBILITIES SHALL BE INCLUDED IN THE PRICE BID FOR VARIOUS ITEMS.

PRIOR TO EXCAVATION, THE CONTRACTOR SHALL GIVE A 48-HOUR NOTICE TO THE OHIO UTILITIES PROTECTION SERVICE (OUPS) BY CALLING (800) 362-2764. A 48-HOUR NOTICE SHALL BE GIVEN TO THE OWNERS OF UNDERGROUND UTILITIES SHOWN ON THE PLANS WHO ARE NOT MEMBERS OF A REGISTERED UNDERGROUND PROTECTION SERVICE. LISTED BELOW ARE UTILITY COMPANIES THAT HAVE FACILITIES LOCATED WITHIN THE WORK LIMITS OF THIS PROJECT AND SUBSCRIBE TO OUPS.

AEP COLUMBUS SOUTHERN POWER ATTN: PAUL PAXTON 700 MORRISON RD GAHANNA, OH 43230 PH: (740) 348-5322 AEP SOLUTION CENTER: (800) 277-2177	COLUMBUS DIVISION OF WATER 910 DUBLIN ROAD COLUMBUS, OH 43215 PH: (614) 645-7788
COLUMBUS FIBERNET ATTN: MATT BLACKSTONE 1600 WALCUTT ROAD COLUMBUS, OH 43228	CITY OF COLUMBUS DPU - DIVISION OF SEWERAGE AND DRAINAGE SEWER MAINTENANCE MANAGER 1250 FAIRWOOD AVENUE COLUMBUS, OH 43206 PH: (614) 645-7102
CITY OF COLUMBUS DEPARTMENT OF PUBLIC SERVICE TRAFFIC MANAGEMENT 1820 EAST 17TH AVE COLUMBUS, OH 43219 OFFICE: (614) 645-7799	COLUMBUS DIVISION OF POWER CHIEF ENGINEER 3500 INDIANOLA AVENUE COLUMBUS, OHIO 43214 PH: (614) 645-7627 VOICE

COLUMBIA GAS OF OHIO ATTN: ROB CALDWELL 3350 JOHNNY APPLESEED COURT COLUMBUS, OH 43231 PH: (614) 818-2104 CUSTOMER SERVICE: (800) 344-4077 DAMAGE PREVENTION: (866) 632-6243	CITY OF COLUMBUS SUPPORT SERVICES DIVISION-COMMUNICATIONS 4211 GROVES RD COLUMBUS, OH 43232 TELE: (614) 724-7344 EXT 100 RADIO ROOM: (614) 724-4006
CITY OF COLUMBUS DEPARTMENT OF TECHNOLOGY 1355 MCKINLEY AVENUE BUILDING C COLUMBUS, OHIO 43222 CONTRACTOR LINE: (614) 645-7756	SOUTH CENTRAL POWER CO. ATTN: ZAC REED DIRECTOR OF ENGINEERING 720 MILL PARK DRIVE LANCASTER, OH 43130 OFFICE: 740-689-6150 CELL: 740-415-4274 zreed@southcentralpower.com

AT&T (fka SBC) ATTN: DONALD G MARSHALL JR. MANAGER OSP PLANNING 111 N. 4TH ST COLUMBUS, OH 43215 AT&T REPAIR SERVICES: 888-611-4466 DAMAGE PREVENTION: 937-296-3929 g01553@aatt.com	FRANKLIN COUNTY SANITARY ENGINEERS ATTN: STEPHEN A. RENNER, DIRECTOR 280 E. BORAD STREET, SUITE 201 DIRECT OFFICE: 614-525-5850 MAIN OFFICE: 614-525-3940 FAX: 614-525-5210 sarenner@franklincountyohio.gov
SPRINT/T-MOBILE ATTN: STEVEN HUGHES OSP ENGINEER II 11370 ENTERPRISE PARK DR. SHARONVILLE, OH 45241 OFFICE: 513-459-5796 CELL: 513-462-7221 steven.hughes1@t-mobile.com	SUMMIT IG ATTN: STEVE RAGLAND VP OF OPERATIONS sragland@summitig.com 24HR EMERGENCY CONTACT: SUMMITIG NOC 855-776-6515 summitignoc@summitig.com

HAMILTON TOWNSHIP ROAD DEPT.
63900 LOCKBOURNE RD
LOCKBOURNE, OH 43137
OFFICE: 614-491-8550
AFTER HOURS: 614-645-7788
hamtspi807@gmail.com

EMERGENCY PROVISIONS-

THE CONTRACTOR SHALL PROVIDE TO THE CITY OF COLUMBUS PROJECT REPRESENTATIVE A LIST OF 24 HOUR EMERGENCY TELEPHONE NUMBERS (IN WRITING) PRIOR TO THE START OF CONSTRUCTION.

SECURING EXCAVATIONS & TRENCHES FOR NON-WORKING HOURS-

EXCAVATIONS AND TRENCHES OVER 24 INCHES DEEP SHALL BE SECURELY PLATED OR BACKFILLED DURING NON-WORKING HOURS

CONSTRUCTION LIMITS-

THE CONSTRUCTION LIMITS SHOWN ON THESE PLANS ARE FOR PHYSICAL CONSTRUCTION ONLY. THE INSTALLATION AND OPERATION OF ALL TEMPORARY TRAFFIC CONTROL AND TEMPORARY TRAFFIC CONTROL DEVICES REQUIRED BY THESE PLANS SHALL BE PROVIDED BY THE CONTRACTOR WHETHER INSIDE OR OUTSIDE OF THESE CONSTRUCTION LIMITS.

MISCELLANEOUS WORK ITEMS-

THE CONTRACTOR SHALL PERFORM ALL ITEMS OF WORK CALLED FOR ON THE PLANS, FOR WHICH NO SPECIFIC METHOD OF PAYMENT IS PROVIDED. THE COST OF THESE ITEMS SHALL BE INCLUDED IN THE VARIOUS UNIT PRICES BID FOR THE PROJECT IMPROVEMENT.

BENCHMARKS AND SURVEY MONUMENTS-

DO NOT DISTURB ANY FRANKLIN COUNTY CERTIFIED BENCHMARKS (VERTICAL AND/OR HORIZONTAL) LOCATED WITHIN THE WORKING LIMITS OF THE PROJECT. CONTRACTOR SHALL CONTACT THE FRANKLIN COUNTY SURVEY DEPARTMENT (614) 525-2489, PRIOR TO CONSTRUCTION , TO COORDINATE THE PROPER PROCEDURES FOR THE RESETTING, RELOCATION, OR REPLACEMENT OF ANY FRANKLIN COUNTY CERTIFIED BENCHMARK OR SURVEY MONUMENT.

CONTINGENCY QUANTITIES-

THE CONTRACTOR SHALL NOT ORDER MATERIALS OR PERFORM WORK SHOWN, LABELED, OR LISTED AS "CONTINGENCY" OR REFERENCED BY PLAN NOTE TO BE USED "AS DIRECTED BY THE ENGINEER," UNLESS AUTHORIZED BY THE ENGINEER, OR A REPRESENTATIVE OF THE CITY OF COLUMBUS, DIVISION OF DESIGN AND CONSTRUCTION.

CONCRETE WALKS-

ALL EXISTING CONCRETE SIDEWALKS BEING REPLACED WITH NEW CONCRETE SIDEWALKS SHALL BE REMOVED AT AN EXISTING JOINT AND REPLACED PER STANDARD DRAWING 2300. INSTALL EXPANSION JOINT WHERE NEW CONCRETE ADJOINS EXISTING SIDEWALK.

ALL EXISTING CONCRETE SIDEWALKS NOT SCHEDULED FOR REPLACEMENT BUT BEING CROSSED BY THE INSTALLATION OF TRAFFIC ITEMS, ELECTRICAL CONDUIT, PIPING, ETC. SHALL BE FULLY REMOVED AT AN EXISTING JOINT AND REPLACED PER STANDARD DRAWING 2300 UNLESS NOTED OTHERWISE.

PAYMENT SHALL BE INCLUDED IN THE PRICE BID FOR ITEM 608 - CONCRETE WALK.

COMPACTION TESTING AT UTILITY CROSSINGS-

PRIOR TO CONSTRUCTION OF THE PUBLIC ROADWAY, SOIL TESTS SHALL BE MADE ON ALL OPEN CUT UTILITY TRENCHES WHICH CROSS THE PROPOSED PAVEMENTS OR WHICH LIE SUCH THAT THE PROPOSED PAVEMENTS ARE LOCATED WITHIN ANY PART OF THE INFLUENCE LINE OF SAID TRENCH. WHERE SAID RESULTS INDICATE THAT THE TRENCH BACKFILL DOES NOT MEET THE COMPACTION REQUIREMENTS OF CMSC 912, ALL BACKFILL MATERIAL SHALL BE REMOVED, REPLACED, AND RE-TESTED UNTIL COMPLIANCE IS ACHIEVED.

SAW CUTTING IS INCLUDED-

THE COST OF SAW CUTTING FOR THE REMOVAL OF PAVEMENT, CURB, WALKS, ETC. SHALL BE INCLUDED IN THE CONTRACT PRICE FOR ITEM 202 WORK ITEMS. SAW CUTTING IS REQUIRED TO PROVIDE SMOOTH STRAIGHT EDGES FOR REMOVAL PURPOSES.

FOR THE DIVISION OF POWER-

THE DIVISION OF POWER (DOP) MAY HAVE UNDERGROUND OR OVERHEAD PRIMARY POWER, SECONDARY POWER, AND CONDUIT SYSTEMS AND STREET LIGHTING AT THIS WORK LOCATION. THE CONTRACTOR IS HEREBY REQUIRED TO CONTACT OUPS AT 811 OR 1-800-362-2764 FORTY-EIGHT HOURS PRIOR TO CONDUCTING ANY ACTIVITY WITHIN THE CONSTRUCTION AREA.

ANY REQUIRED RELOCATION, SUPPORT, PROTECTION, OR ANY OTHER ACTIVITY CONCERNED WITH THE CITY'S ELECTRICAL FACILITIES IN THE CONSTRUCTION AREA IS TO BE PERFORMED BY THE CONTRACTOR UNDER THE DIRECTION OF DOP PERSONNEL AND AT THE EXPENSE OF THE PROJECT. DOP SHALL MAKE ALL FINAL CONNECTIONS TO DOP'S EXISTING ELECTRICAL SYSTEM AT THE EXPENSE OF THE PROJECT.

THE CONTRACTOR SHALL USE MATERIAL AND MAKE REPAIRS TO A CITY OF COLUMBUS STREET LIGHTING SYSTEM BY FOLLOWING DOP'S "MATERIAL AND INSTALLATION SPECIFICATIONS" (MIS) AND THE CITY OF COLUMBUS "CONSTRUCTION AND MATERIAL SPECIFICATIONS" (CMS). ANY NEW OR RE- INSTALLED UNDERGROUND STREETLIGHT SYSTEM SHALL REQUIRE TESTING AS REFERRED TO IN SECTION 1001.18 OF THE CMS MANUAL. THE CONTRACTOR SHALL CONFORM TO DOP'S EXISTING STREET LIGHTING LOCKOUT/TAGOUT (LOTO) PROCEDURE, MIS-01, COPIES OF WHICH ARE AVAILABLE FROM DOP.

IF ANY ELECTRIC FACILITY BELONGING TO DOP IS DAMAGED IN ANY MANNER BY THE CONTRACTOR, ITS AGENTS, SERVANTS, OR EMPLOYEES, AND REQUIRES EMERGENCY REPAIRS, THE DOP DISPATCH OFFICE SHOULD BE CONTACTED IMMEDIATELY AT (614) 645-7627. DOP SHALL MAKE ALL NECESSARY REPAIRS, AND THE EXPENSE OF SUCH REPAIRS AND OTHER RELATED COSTS SHALL BE PAID BY THE CONTRACTOR TO THE DIVISION OF POWER, CITY OF COLUMBUS, OHIO.

PAVEMENT PLANING 'AS PER PLAN'

UNDER THIS ITEM, ASPHALT SHALL BE MILLED FROM DESIGNATED STREETS TO A MINIMUM 1" DEPTH (TYPICAL 1.5"), OR AS INDICATED WITHIN THESE PLANS. PLANING DEPTHS INDICATED MAY BE ADJUSTED IN THE FIELD AT THE ENGINEER'S DISCRETION. INCREASED OR DECREASED PAVEMENT PLANING THICKNESS SHALL BE PERFORMED AT NO ADDITIONAL COST. ALL STREET PLANING SHALL MAINTAIN THE EXISTING CROWN. IF THE CROWN IS REMOVED AS A RESULT OF THE CONTRACTOR'S ERROR OR WITHOUT THE ENGINEER'S PRIOR APPROVAL, NO ADDITIONAL ASPHALT ABOVE THE PLAN QUANTITY FOR EACH SHEET SHALL BE PAID. THE CONTRACTOR SHALL LOCATE ALL EXISTING LOOP DETECTORS PRIOR TO PLANING. IN THE EVENT A LEAD-IN CABLE IS DAMAGED, THE CONTRACTOR SHALL REPAIR. NO SEPARATE PAYMENT SHALL BE MADE FOR LOOP DETECTOR REPAIRS.

PAVEMENT CUTTING, SAWING, AND EXCAVATION OPERATIONS-

ALL PUBLIC AGENCIES AND PRIVATE CONTRACTORS PERFORMING PAVEMENT-CUTTING OPERATIONS ON CITY OF COLUMBUS STREETS AND ROADWAYS SHALL PROTECT THE ENVIRONMENT FROM DISCHARGES CREATED BY THEIR PAVEMENT CUTTING OPERATIONS. NOTE THAT COLUMBUS CITY CODE 1145 PROHIBITS NON-STORMWATER DISCHARGE INTO THE CITY OF COLUMBUS SEWER SYSTEM, CURB INLETS, AND ANY PART OF ITS MS4 (MUNICIPAL SEPARATE STORM SEWER SYSTEM).

THE REQUIREMENT INCLUDES BUT IS NOT LIMITED TO WET OR DRY SAW-CUTTING, JACK HAMMERING, EXCAVATION EQUIPMENT USE, ETC. THE PUBLIC AGENCY AND/OR PRIVATE CONTRACTOR WORK CREWS SHALL RECOVER AND DISPOSE OF DETRITUS, POLLUTED WATERS, OR OTHER SUCH DISCHARGES RESULTING FROM THEIR PAVEMENT CUTTING OPERATIONS AND PROTECT ALL STORM SEWER INLETS FROM RECEIVING ANY DISCHARGES FROM THE CONSTRUCTION OPERATIONS. THE AGENCY OR CONTRACTOR RESPONSIBLE FOR EACH PAVEMENT CUTTING ACTIVITY SHALL BE SOLELY LIABLE FOR NOTICE OF VIOLATIONS (NOV/S) AND FINES ISSUED BY CITY OF COLUMBUS AND/OR STATE OF OHIO AUTHORITIES.

EQUIPMENT, MATERIALS, AND METHODS SHALL BE PROVIDED BY THE RESPONSIBLE PUBLIC AGENCY AND/OR PRIVATE CONTRACTOR TO WORK CREWS PERFORMING THE PAVEMENT CUTTING ACTIVITY AND MADE AVAILABLE TO WORK CREWS FOR USE IN CLEANING UP DISCHARGES RESULTING FROM SUCH CUTTING ACTIVITIES AND PREVENTING RUNOFF. ALL WORK CREWS SHALL BE TRAINED TO EXERCISE AND EMPLOY EQUIPMENT, MATERIALS, AND ENVIRONMENTAL PROTECTIVE MEASURES TO PREVENT POLLUTED DISCHARGES FROM ENTERING THE CITY OF COLUMBUS STORM SEWER SYSTEM AND WATERS OF THE STATE OF OHIO.

THE PUBLIC AGENCY AND/OR PRIVATE CONTRACTOR IS SOLELY RESPONSIBLE FOR ENSURING THAT THE INLET PROTECTION IS ADEQUATE. THE MOST STRINGENT PROJECT PLANS, NOTES AND/OR DRAWINGS INCLUDING STORMWATER POLLUTION PREVENTION PLAN (SWPPP) OR SPILL PREVENTION/REMEDIATION PLAN SHALL APPLY TO ALL PAVEMENT CUTTING, SAWING, OR EXCAVATION OPERATIONS.

NEW CURB RADIUS-

INTERSECTION CORNERS OR HORIZONTAL CURVES SHALL MATCH THE EXISTING RADIUS UNLESS NOTED OTHERWISE.

COLUMBIA GAS DAMAGE PREVENTION CENTER-

FOR INFORMATION CONCERNING COLUMBIA GAS LINES OR EQUIPMENT, OR IF DAMAGE OCCURS TO GAS LINES OR EQUIPMENT, THE CONTRACTOR CAN CALL THE COLUMBIA GAS DAMAGE PREVENTION CENTER @ (614) 280-7372 OR TOLL FREE @ (866) 632-6243.

PUBLIC TREE PRESERVATION NOTE-

ALL PUBLIC TREES AND THE GROUND BELOW THEIR RESPECTIVE DRIP LINES, WHETHER SHOWN OR NOT SHOWN ON THE PLANS, ARE TO BE PRESERVED UNLESS APPROVAL TO REMOVE OR PRUNE IS GIVEN IN WRITING BY COLUMBUS RECREATION & PARKS (CRPD)/CITY FORESTER OR IF THE PUBLIC TREE REMOVAL HAS BEEN DESIGNATED ON THE APPROVED FINAL SITE COMPLIANCE PLAN. TREES APPROVED FOR REMOVAL BY EITHER OF THE CRPD/CITY FORESTER SHALL BE PAID FOR UNDER CMSC ITEM 201, CLEARING AND GRUBBING, UNLESS OTHERWISE PROVIDED FOR BY UNIT PRICE BID UNDER ITEM 201. THE CONTRACTOR SHALL PROTECT TREES NEAR OR ADJACENT TO THE WORK AREA TO AVOID DAMAGE TO ALL TREES THAT ARE TO REMAIN. ALL TREES REMOVED SHALL INCLUDE STUMP REMOVAL TO EIGHTEEN (18) INCHES BELOW GRADE. ALL CLEARING AND GRUBBING DONE ON CRPD PROPERTY, RIGHT-OF-WAY, OR ANY CITY OF COLUMBUS PROPERTY SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR. HEAVY EQUIPMENT WILL NOT BE ALLOWED TO COMPACT THE SOIL OVER THE ROOT ZONE OF EXISTING PUBLIC TREES. RESTRICTED EQUIPMENT ACCESS ROUTES SHALL BE COORDINATED WITH CRPD INSPECTOR, KEITH MAY, AT KAMAY@COLUMBUS.GOV BEFORE WORK IS BEGINS. TEMPORARY PAVING MATERIALS, SUCH AS PLYWOOD, LUMBER OR RUBBER MATTING, SPREAD OVER THE ROOT ZONE OF PUBLIC TREES MAY BE REQUIRED TO PREVENT COMPACTION. IF A PUBLIC TREE NEEDS TO BE REMOVED, THE CONTRACTOR SHALL PROVIDE A TREE MITIGATION PLAN TO THE CITY FORESTRY SECTION ((614) 724-1276) AND REFER TO THE CRPD TREE MITIGATION PLAN GUIDANCE, ANSI A300 AND/OR CITY OF COLUMBUS EXECUTIVE ORDER 2015-01 FOR TREE REPLACEMENT STANDARDS.

PUBLIC TREE PROTECTION NOTE-

A TREE PROTECTION PLAN WITH A DRAWING OF ANY WORK LOCATED WITHIN THE DRIP LINE OF A PUBLIC TREE SHALL BE INCLUDED IN THE APPROVED FINAL SITE COMPLIANCE PLAN (FSCP). REFER TO CRPD STANDARD DRAWING FOR TREE PROTECTION. CONSTRUCTION MATERIALS, EXCAVATION DEBRIS, FUEL , EQUIPMENT OR VEHICLES ARE NOT TO BE STOCKPILED, STORED, DUMPED OR PARKED WITHIN THE DRIP LINE OF PUBLIC TREES. ALL TREES MUST BE PROTECTED AGAINST INJURY OR DAMAGE TO BRANCHES, TRUNKS, OR ROOTS FROM CONSTRUCTION AND EXCAVATION, AS DESCRIBED IN THE "BEST MANAGEMENT PRACTICES - MANAGING TREES DURING CONSTRUCTION" A COMPANION PUBLICATION TO ANSI A300 PART 5. IF THERE IS A QUESTION WHETHER A TREE OR NOT NEEDS TO BE PROTECTED, THE CONTRACTOR MUST CONTACT THE CITY FORESTRY SECTION AT (614) 724-1276. FAILURE TO CONTACT THE CITY FORESTRY REPRESENTATIVE IN ADVANCE OF CONSTRUCTION WILL RESULT IN THE CONTRACTOR REIMBURSING CITY FORESTRY FOR THE COST OF ANY AND ALL DAMAGE AS DETERMINED BY THE CURRENT ANSI A300/CITY OF COLUMBUS EXECUTIVE ORDER 2015-01 FOR TREE PROTECTION AND REPLACEMENT.

EROSION AND SEDIMENT CONTROL

EROSION AND SEDIMENT CONTROL MEASURES ARE REQUIRED AS PART OF THIS PROJECT. EROSION AND SEDIMENT CONTROL MEASURES SPECIFIC TO THIS SITE MAY BE FOUND ON SHEET NO(S). 14 - 18 OF THIS PLAN. LAND-DISTURBING ACTIVITIES MUST COMPLY WITH ALL PROVISIONS OF THE DIVISION OF SEWERAGE AND DRAINAGE EROSION AND SEDIMENT CONTROL REGULATION. ALL LAND-DISTURBING ACTIVITIES SHALL BE SUBJECT TO INSPECTION AND SITE INVESTIGATION BY THE CITY OF COLUMBUS AND/OR THE OHIO EPA.

ALL EROSION SEDIMENTATION CONTROL PRACTICES ARE SUBJECT TO FIELD MODIFICATIONS AT THE DISCRETION OF THE CITY OF COLUMBUS, PROJECT ENGINEER AND/OR THE OHIO EPA.

IT IS THE RESPONSIBILITY OF THE SITE OWNER TO NOTIFY THE CITY OF COLUMBUS TWO WORKING DAYS PRIOR TO COMMENCEMENT OF INITIAL SITE LAND DISTURBANCE ON ANY SITE OF ONE OR MORE ACRES. THIS INCLUDES SITE CLEARING, GRUBBING, AND ANY EARTH MOVING. PRIMARY EROSION AND SEDIMENT CONTROL PRACTICES ARE MANDATED BY REGULATIONS TO BE IN PLACE FROM THE BEGINNING OF THE CONSTRUCTION ACTIVITY. PLEASE CONTACT THE STORMWATER AND REGULATORY SECTION AT (614) 645-6311. DETAILS OF THIS REQUIREMENT MAY BE FOUND IN THE REGULATION FOR CONTROL OF STORMWATER POLLUTION FROM LAND DISTURBANCE. FAILURE TO COMPLY MAY RESULT IN ENFORCEMENT ACTION.

THE NPDES PERMIT HOLDER SHALL PROVIDE QUALIFIED PERSONNEL TO CONDUCT SITE INSPECTIONS ENSURING PROPER FUNCTIONALITY OF THE EROSION AND SEDIMENTATION CONTROLS. ALL EROSION AND SEDIMENTATION CONTROLS ARE TO BE INSPECTED ONCE EVERY SEVEN (7) CALENDAR DAYS AND WITHIN 24 HOURS OF A *9#32 STORM EVENT OR GREATER THAT OCCURS OVER A 24 HOUR PERIOD. RECORDS OF THE SITE INSPECTIONS SHALL BE KEPT BY THE CONTRACTOR AND MADE AVAILABLE TO JURISDICTIONAL AGENCIES IF REQUIRED.

THIS PLAN MUST BE POSTED ON SITE. A COPY OF THE SWPPP PLAN AND THE APPROVED EPA STORMWATER PERMIT (WITH THE SITE-SPECIFIC NOI NUMBER) SHALL BE KEPT ON SITE AT ALL TIMES.

3916-E

CALCULATED	AMD	GENERAL NOTES
	CHECKED	
IMPROVEMENTS OF LONDON-GROVEPORT ROAD FROM 965' WEST OF USALLE DR TO 1000' EAST OF LITTLE DR TO 1000' LOCKBOURNE ROAD FROM 2300' SOUTH OF LONDON-GROVEPORT RD TO 2025' SOUTH OF LONDON-GROVEPORT RD		
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WATER WORKS NOTES

THE CITY OF COLUMBUS, CONSTRUCTION AND MATERIALS SPECIFICATIONS, 2018 EDITION AND ALL REVISIONS, INCLUDING ALL SUPPLEMENTS THERETO, SHALL GOVERN ALL CONSTRUCTION ITEMS THAT ARE A PART OF THIS PLAN, UNLESS OTHERWISE NOTED.

ALL WATER MAIN MATERIALS AND INSTALLATIONS SHALL BE IN ACCORDANCE WITH THE CURRENT RULES AND REGULATIONS OF THE CITY OF COLUMBUS, DIVISION OF WATER. ALL CITY OF COLUMBUS, DIVISION OF WATER STANDARD DRAWINGS SHALL APPLY TO THE PROJECT, UNLESS NOTED OTHERWISE.

FOR ANY EMERGENCIES INVOLVING THE WATER DISTRIBUTION SYSTEM, PLEASE CONTACT THE DIVISION OF WATER DISTRIBUTION MAINTENANCE OFFICE AT 614-645-7788.

ALL BRASS FITTINGS ASSOCIATED WITH WATER WORK, INCLUDING REPAIRS TO THE EXISTING SYSTEM, SHALL CONFORM TO THE REVISED ALLOWABLE LEAD EXTRACTION LIMIT PER THE UPDATED NSF/ANSI 61 STANDARD. THE DIVISION OF WATER'S APPROVED MATERIALS LIST HAS BEEN UPDATED TO REFLECT THIS REQUIREMENT.

IT SHALL BE UNLAWFUL FOR ANY PERSON TO PERFORM ANY WORK ON CITY OF COLUMBUS WATER MAIN SYSTEMS WITHOUT FIRST SECURING LICENSE TO ENGAGE IN SUCH WORK, AS INDICATED IN COLUMBUS CITY CODE SECTION 1103.02 AND 1103.06. THIS WORK INCLUDES ANY ATTACHMENTS, ADDITIONS TO OR ALTERATIONS IN ANY CITY SERVICE PIPE OR APPURTENANCES (INCLUDING WATER SERVICE LINES AND TAPS). THIS REQUIREMENT MAY BE MET BY UTILIZATION OF A SUBCONTRACTOR WHO HOLDS A CITY OF COLUMBUS WATER CONTRACTOR LICENSE OR A COMBINED WATER/SEWER CONTRACTOR LICENSE TO PERFORM THIS WORK. UTILIZATION OF A SUBCONTRACTOR MUST MEET THE LICENSING REQUIREMENTS OF CITY OF COLUMBUS BUILDING CODE, IN PARTICULAR SECTION 4114.119 AND 4114.529.

THE CONTRACTOR SHALL OBTAIN THE PROPER HYDRANT PERMIT(S), AND ANY APPLICABLE FEES, FOR ANY APPROVED HYDRANT USAGE DEEMED NECESSARY FOR WORK UNDER THIS IMPROVEMENT. PERMITS MAY BE OBTAINED THROUGH THE DIVISION OF WATER PERMIT OFFICE (645-7330). THE CONTRACTOR SHALL ADHERE TO ALL RULES & REGULATIONS GOVERNING SAID PERMIT AND MUST HAVE THE ORIGINAL PERMIT ON SITE ANYTIME IN WHICH THE HYDRANT IS IN USE. PERMIT MAY BE OBTAINED BY ACCESSING <http://portal.columbus.gov/permits/>. COST TO BE INCLUDED IN THE VARIOUS BID ITEMS.

ALL WATER MAINS SHALL BE CLEANED AND FLUSHED, AND ANY WATER MAIN 12-INCH AND LARGER MUST BE PROPERLY PIGGED, IN ACCORDANCE WITH SECTION 801.15 OF THE CITY OF COLUMBUS, CONSTRUCTION AND MATERIAL SPECIFICATIONS.

ANY SECTION OF WATER MAIN THAT IS LONGER THAN 20 FEET IN LENGTH SHALL BE CHLORINATED. HAND SWABBING METHODS WILL ONLY BE PERMITTED FOR SECTIONS LESS THAN OR EQUAL TO 20 FEET IN LENGTH. USE UNSCENTED HOUSEHOLD BLEACH FOR HAND SWABBING OF PIPE AND FITTINGS. PLEASE NOTE THAT CUT-IN-TEES, SLEEVES, AND ANY OTHER REQUIRED FITTINGS OR PIPING SHALL BE TAKEN INTO ACCOUNT AND ARE INCLUDED IN THE TOTAL LENGTH OF THE SECTION (CUT TO CUT).

ALL WATER MAINS SHALL BE PRESSURE TESTED IN ACCORDANCE WITH SECTION 801.16 OF THE CITY OF COLUMBUS, CONSTRUCTION AND MATERIAL SPECIFICATIONS. THE CITY MAY NOT APPROVE ANY TEST LASTING LESS THAN TWO HOURS, REGARDLESS OF THE AMOUNT OF LEAKAGE.

ALL WATER MAINS SHALL BE DISINFECTED IN ACCORDANCE WITH SECTION 801.17 OF THE CITY OF COLUMBUS CONSTRUCTION AND MATERIAL SPECIFICATIONS. SPECIAL ATTENTION IS DIRECTED TO APPLICABLE SECTIONS OF A.W.W.A C-651. WHEN THE WATER MAINS ARE READY FOR DISINFECTION, THE INSPECTOR SHALL SUBMIT A WRITTEN REQUEST FOR CHLORINATION OF THE MAINS THAT NEED DISINFECTED, THREE (3) SETS OF "AS-BUILT" PLANS (FULL SIZE SHEETS ONLY), THE AS-BUILT SURVEY COORDINATES, WATER SERVICE REPORTS AND A PRESSURE TEST TO THE CITY OF COLUMBUS, DIVISION OF WATER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH THE DISINFECTION OF ALL WATER MAINS CONSTRUCTED UNDER THIS PLAN.

ALL FIRE HYDRANTS TO BE INSTALLED IN THE CITY OF COLUMBUS SHALL BE PAINTED WITH THE COLOR "SAFETY ORANGE". THE FIRE HYDRANTS SHALL BE PROVIDED WITH TWO COATS IN A GLOSS ENAMEL OF THE "SAFETY ORANGE" COLOR FOR THE ENTIRE HYDRANT. THE TOPS OF THE FIRE HYDRANTS ARE NO LONGER REQUIRED TO BE PAINTED BLACK. AFTER INSTALLATION OF FIRE HYDRANTS, THE CONTRACTOR IS RESPONSIBLE TO APPLY TOUCH UP PAINT TO ANY DAMAGE TO THE FACTORY APPLIED HYDRANT PAINT. HYDRANTS WILL NOT BE ACCEPTED UNTIL ANY PAINT DAMAGE FROM SHIPPING OR INSTALLATION HAS BEEN REPAIRED. USE HYDRANT TOUCH UP PAINT IN ACCORDANCE WITH THE APPROVED MATERIALS LIST.

ALL FIRE HYDRANTS, WHETHER NEW OR RELOCATED, SHALL BE INSPECTED AND APPROVED BY THE DIVISION OF FIRE PRIOR TO BEING PUT INTO SERVICE. THE CONTRACTOR SHALL CONTACT THE DIVISION OF FIRE AT 645-7642 EXT. 75658 TO SCHEDULE THE INSPECTION OF THE NEW OR RELOCATED FIRE HYDRANTS. THE CITY WILL PROVIDE THE CONTRACT "OUT OF SERVICE" RINGS THAT SHALL BE PLACED ON ALL NEW OR RELOCATED FIRE HYDRANTS TO CLEARLY IDENTIFY THEM AS INACTIVE. AFTER WRITTEN NOTIFICATION OF ACCEPTANCE HAS BEEN RECEIVED AND FINAL WATER MAIN CONNECTIONS HAVE OCCURRED, THE CONTRACTOR SHALL REMOVE THE "OUT OF SERVICE" RINGS FROM THE FIRE HYDRANTS. ALL "OUT OF SERVICE" RINGS FROM THE FIRE HYDRANTS SHALL BE RETURNED TO THE CITY. ALL COORDINATION AND WORK REQUIRED TO TEST AND ACCEPT THE FIRE HYDRANTS SHALL BE INCLUDED IN THE PRICE BID ITEM 809.

MAINTAIN EIGHTEEN (18) INCHES VERTICAL AND TEN (10) FEET HORIZONTAL SEPARATION BETWEEN ANY SANITARY OR STORM SEWER PIPING AND ALL PROPOSED WATER MAINS.

WHEN CROSSING THE EXISTING WATER MAIN, AND LOW STRENGTH MORTAR (ITEM 613) IS TO BE USED AS BACKFILL, THE CONTRACTOR SHALL PROVIDE SIZE NO. 57 CRUSHED CARBONATE STONE (CCS) 1 FOOT BELOW TO 1 FOOT ABOVE THE EXISTING WATER MAIN.

IF DURING EXCAVATION, THE POLYETHYLENE ENCASEMENT ON THE EXISTING WATER MAIN BECOMES DAMAGED, THE CONTRACTOR SHALL REPAIR THE POLYETHYLENE ENCASEMENT PER MANUFACTURER'S SPECIFICATIONS AND DOW STANDARD DRAWINGS L-1003 AND L-1004, AT THEIR OWN EXPENSE. ENSURE THAT THE ENTIRE EXPOSED AREA IS COVERED WITH NEW POLYETHYLENE ENCASEMENT AND SECURELY TAPED, PRIOR TO BACKFILLING.

CONTRACTOR SHALL ADHERE TO THE REQUIREMENTS OF THE OHIO ADMINISTRATIVE CODE CHAPTER 3745-83-02 WATER DISRUPTION OF SERVICE RULE. EXCAVATE PITS SUFFICIENTLY BELOW THE AREA TO BE CONNECTED TO IN ORDER TO MAINTAIN WATER LEVELS BELOW THE WATER MAIN. IF WATER FROM THE PIT ENTERS THE EXISTING MAIN, CONTACT DIVISION OF WATER IMMEDIATELY. ENSURE THAT SUFFICIENTLY SIZED PUMPS ARE UTILIZED TO REMOVE WATER FROM THE TRENCH AND BACKUP PUMPS ARE KEPT ON SITE FOR REDUNDANCY.

"ITEM SPECIAL - SURVEY COORDINATES" SHALL INCLUDE ALL MATERIAL, EQUIPMENT, AND LABOR NECESSARY TO OBTAIN HORIZONTAL AND VERTICAL (NORTHING, EASTING, AND CENTERLINE ELEVATION) SURVEY COORDINATES FOR THE WATER MAIN IMPROVEMENTS. THE SURVEY COORDINATES SHALL BE OBTAINED FOR THE COMPLETED WATER MAIN CONSTRUCTION AND SHALL INCLUDE ALL VALVES, TEES, CROSSES, BENDS, HORIZONTAL DEFLECTIONS, PLUGS, REDUCERS, TAPPING SLEEVES, FIRE HYDRANTS, AIR RELEASES, CURB STOPS, AND CASING PIPE TERMINI. ADDITIONAL SURVEY COORDINATES ARE REQUIRED ON THE WATER MAIN EVERY 200 FEET WHERE NO FITTING OR OTHER WATER MAIN STRUCTURE IS BEING INSTALLED WITHIN THAT LENGTH OF THE IMPROVEMENT.

ALL SURVEY COORDINATES SHALL BE REFERENCED TO THE APPLICABLE COUNTY ENGINEER'S MONUMENTS, AND SHALL BE BASED ON THE NORTH AMERICAN DATUM OF 1983 (NAD 83) WITH THE (NSRS2007) ADJUSTMENT, WITH FURTHER REFERENCE MADE TO THE OHIO STATE PLANE SOUTH COORDINATE SYSTEM, SOUTH ZONE, WITH ELEVATIONS BASED ON NAVD 88 DATUM. ALL COORDINATES (NORTHING, EASTING, CENTERLINE ELEVATION) SHALL BE REFERENCED TO THE NEAREST HUNDREDTH (IN XXXXXX.XX, E XXXXXX.XX, C/L ELEV. XXX.XX). ALL SURVEY COORDINATES SHALL BE ACCURATE TO WITHIN 1.0 FOOT HORIZONTAL AND A TENTH OF A FOOT (0.10) OR LESS VERTICAL.

THE COORDINATES SHALL BE DOCUMENTED TO THE ENGINEER IN DIGITAL SPREADSHEET FORM AND SHALL INCLUDE THE APPLICABLE ITEM, STATION, NORTHING, EASTING, AND CENTERLINE ELEVATION. COORDINATES SHALL BE SUBMITTED TO THE ENGINEER ON A BI-WEEKLY BASIS. COORDINATES SHALL ALSO BE REQUIRED TO BE SUBMITTED TO THE DIVISION OF WATER AS PART OF THE REQUEST FOR CHLORINATION.

LUMP SUM PAYMENT IS FULL COMPENSATION FOR ALL WORK INVOLVED IN OBTAINING AND DOCUMENTING THE SURVEY COORDINATES AS DESCRIBED IN THIS SPECIFICATION.

ALL WATER MAIN VALVE BOXES, WATER TAP BOXES, TEST STATIONS, PITOMETER TAP STRUCTURES, METER PIT COVERS, AND OTHER SURFACE UTILITY STRUCTURES WITHIN THE DISTURBED AREA SHALL BE ADJUSTED TO GRADE. ANY OF THESE STRUCTURES LOCATED WITHIN PAVEMENT, DRIVEWAYS, OR OTHER TRAVELED AREAS, WHETHER EXISTING OR PROPOSED, SHALL BE EQUIPPED WITH A TRAFFIC RATED, HEAVY DUTY VALVE BOX AND/OR COVER IN ACCORDANCE WITH THE STANDARD DRAWINGS. EXISTING WATER TAP BOXES TO REMAIN THAT ARE ENCOUNTERED WITHIN THE PROJECT LIMITS SHALL BE CLEANED OUT, CENTERED OVER THE CURB STOP, AND ADJUSTED TO PROPOSED GRADE.

RISER RINGS WILL NOT BE PERMITTED ON ANY NEWLY INSTALLED VALVE BOXES TO BRING VALVES TO FINAL GRADE. THE CONTRACTOR SHALL ENSURE THAT THE BOXES ARE INSTALLED AT THE CORRECT GRADE FOR FINAL PAVING OPERATIONS AND THAT THEIR PAVING CONTRACTOR INSTALLS PAVEMENT CORRECTLY AT LIDS DURING PAVING OPERATIONS. VALVE LIDS ARE NOT PERMITTED TO SET ABOVE FINAL GRADE AND SHALL BE A MAXIMUM OF 1/4" BELOW FINAL GRADE.

WHERE NEW CONDUIT IS PROPOSED TO CROSS AN EXISTING OR PROPOSED WATER MAIN OR WATER TAP/SERVICE LINE, A MINIMUM OF 12-INCHES OF VERTICAL CLEARANCE SHALL BE MAINTAINED BETWEEN THE CONDUIT AND THE WATER MAIN OR TAP/SERVICE LINE. A MINIMUM OF 3-FEET OF HORIZONTAL CLEARANCE (OUT TO OUT) IS REQUIRED AT LOCATIONS WHERE THE CONDUIT IS PARALLEL TO THE WATER MAIN AND AT LOCATIONS OF WATER MAIN THRUST BLOCKS.

A MINIMUM OF 3 FEET OF HORIZONTAL CLEARANCE (OUT TO OUT) SHALL BE MAINTAINED BETWEEN ALL EXISTING WATER MAINS AND FOUNDATIONS FOR POLES, PULL BOXES, PUSH BUTTON PEDESTALS, AND ANY OTHER MISCELLANEOUS ELECTRICAL STRUCTURE.

FIRE HYDRANT RELOCATIONS SHALL CONFORM TO APPLICABLE SECTIONS OF ITEM 809 OF THE CITY OF COLUMBUS CONSTRUCTION AND MATERIAL SPECIFICATIONS. WORK SHALL CONSIST OF REMOVING THE EXISTING HYDRANT, INSTALLING NEW 6" PIPE AND FITTING AS REQUIRED TO LOCATE THE FIRE HYDRANT 2 FEET FROM THE BACK OF PROPOSED CURB OR 8 FEET OFF EDGE OF PAVEMENT, RESETTNG HYDRANT AND BLOCKING AS REQUIRED. ALL 6" PIPE SHALL BE INSTALLED AT 4'-0" MINIMUM COVER. HYDRANT EXTENSIONS SHALL BE PROVIDED PER ITEM 810, AS REQUIRED. RELOCATED FIRE HYDRANTS SHALL BE ADJUSTED TO PROPER GRADE AND FACED IN THE PROPER DIRECTION. WHEN A HYDRANT IS RELOCATED FIFTEEN (15) FEET OR MORE FROM THE "TYPICAL HYDRANT SETTING" VALVE LOCATION (SEE L-6409 & L-6637), AN ADDITIONAL VALVE SHALL BE INSTALLED, AND RESTRAINED, WITHIN TWO (2) FEET OF THE RELOCATED HYDRANT. PAYMENT IS TO BE INCLUDED UNDER ITEM 809, FIRE HYDRANT RELOCATED.

RELOCATED FIRE HYDRANTS SHALL BE PUT BACK IN SERVICE AS SOON AS POSSIBLE. THE CONTRACTOR SHALL NOTIFY THE DIVISION OF FIRE ALARM OFFICE, 221-3132, WHENEVER FIRE HYDRANT ARE TAKEN OUT OF SERVICE AND PLACED BACK IN SERVICE. NO TWO (2) ADJACENT FIRE HYDRANTS SHALL BE TAKEN OUT OF SERVICE CONCURRENTLY.

THE CONTRACTOR SHALL COORDINATE HIS WORK SUCH THAT NO WATER CUSTOMER WILL HAVE THEIR SERVICE DISRUPTED MORE THAN TWO (2) TIMES THROUGHOUT THE DURATION OF THIS PROJECT.

IF A LEAD WATER TAP IS ENCOUNTERED AND IS NEITHER DAMAGED NOR PART OF PLANNED RELOCATION/REPLACEMENT, THE CONTRACTOR SHALL REPORT THE PRESENCE OF THE LEAD TAP TO THE DIVISION OF WATER DISTRIBUTION MAINTENANCE GROUP AT 614-645-7788.

BENCHING OF FOUNDATION SLOPES

ALTHOUGH CROSS-SECTIONS INDICATE SPECIFIC DIMENSIONS FOR PROPOSED BENCHING OF THE EMBANKMENT FOUNDATIONS IN CERTAIN AREAS, NO WAIVER OF THE SPECIFICATIONS IS INTENDED. BENCH ALL OTHER SLOPED EMBANKMENT AREAS AS SET FORTH IN SECTION 203.05 OF THE CONSTRUCTION AND MATERIAL SPECIFICATIONS (C&MS). NO ADDITIONAL PAYMENT WILL BE MADE FOR BENCHING REQUIRED UNDER THE PROVISIONS OF SECTION 203.05.

ABBREVIATION LIST

THE FOLLOWING ABBREVIATIONS ARE USED THROUGHOUT THE PLANS.

ALT	-	ALTERNATE
ATG	-	ADJUST TO GRADE
CGI	-	CURB AND GUTTER INLET
CLP	-	CLEARANCE
CMF	-	CORRUGATED METAL PIPE
CON	-	CONCRETE PIPE
CONST	-	CONSTRUCTION
CFA	-	CORNER POST ASSEMBLY
CPP	-	CORRUGATED PLASTIC PIPE
CR	-	COUNTY ROAD
DND	-	DO NOT DISTURB
EL	-	ELEVATION
EMERG	-	EMERGENCY
EOP	-	EDGE OF PAVEMENT
EPA	-	END POST ASSEMBLY
EX	-	EXISTING
FH	-	FIRE HYDRANT
HW	-	HEADWALL
IPA	-	INTERMEDIATE POST ASSEMBLY
MAX	-	MAXIMUM
MIN	-	MINIMUM
NC	-	NORMAL CROWN
NDC	-	NORMAL DESIGN CRITERIA
NO	-	NUMBER
OH-T	-	OVERHEAD TELECOM
PCC	-	PORTLAND CEMENT CONCRETE
PG	-	PROFILE GRADE
PLAST	-	PLASTIC PIPE
PROP	-	PROPOSED
R/W	-	RIGHT-OF-WAY
RCP	-	ROCK CHANNEL PROTECTION
REQ'D	-	REQUIRED
RTG	-	RECONSTRUCT TO GRADE
SLM	-	STRAIGHT LINE MILEAGE
SMP	-	SMOOTH METAL PIPE
STL	-	STEEL PIPE
TBA	-	TO BE ABANDONED
TBR	-	TO BE REMOVED
TBRL	-	TO BE RELOCATED BY OTHERS
TBV	-	TO BE VERIFIED

CONVENTIONAL SYMBOLS

County Line		Ditch / Creek (Ex)	
Township Line		Ditch / Creek (Pr)	
Section Line		Tree Line (Ex)	
Corporation Line		Ownership Hook Symbol	
Fence Line (Ex)		Property Line Symbol	
Fence Line, Wood Plank (Ex)		Break Line Symbol	
Center Line		Tree (Pr)	
Right of Way (Ex)		Tree (Ex)	
Right of Way (Pr)		Shrub (Ex)	
Standard Highway Ease.(Ex)		Tree (Remove)	
Sewer Ease.(Ex)		Shrub (Remove)	
Sewer Ease.(Pr)		Evergreen (Ex)	
Temporary Const Ease.		Stump	
Channel Ease. (Pr)		Evergreen (Remove)	
Utility Ease. (Pr)		Stump (Remove)	
Permanent Ease. (Pr)		Wetland (Pr)	
Utility Ease. (Ex)		Grass (Pr)	
Railroad		Aerial Target	
Guardrail (Ex)		Post (Ex)	
Construction Limits		Mailbox (Ex)	
Edge of Pavement (Ex)		Mailbox (Pr)	
Edge of Pavement (Pr)		Light (Ex)	
Traffic Interconnect Conduit (Ex)		Telephone Marker (Ex)	
Traffic Interconnect Conduit (Pr)		Fire Hydrant (Ex)	
		Water Meter (Ex)	
		Water Valve (Ex)	
		Utility Valve Unknown (Ex.)	
		Telephone Pole (Ex)	
		Power Pole (Ex)	
		Light Pole (Ex)	
		Flag Pole(Ex)	
		Boulder(Ex)	
		Edge of Shoulder (Ex)	
		Edge of Shoulder (Pr)	
		Water Line (Ex)	
		Gas Line (Ex)	
		Fiber Optic (Ex.)	
		Overhead Telecom (ex.)	
		Overhead Electric (Ex.)	

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TEMPORARY TRAFFIC CONTROL

1. ALL TEMPORARY TRAFFIC CONTROL (TTC) DEVICES SHALL BE FURNISHED, ERECTED, MAINTAINED AND REMOVED BY THE CONTRACTOR IN ACCORDANCE WITH THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS (OMUTCD), (CURRENT EDITION). COPIES ARE AVAILABLE FROM THE OHIO DEPARTMENT OF TRANSPORTATION, OFFICE OF CONTRACTS, 1980 WEST BROAD STREET, COLUMBUS, OHIO, 43216. NOTE: ALL DEVICES SHALL COMPLY, FOR CONDITION AND LOCATION, WITH THE CURRENT EDITION OF THE NCHRP 350 AND MASH CRASH TESTING GUIDELINES.

2. CONSTRUCTION OPERATIONS SHALL NOT BEGIN UNTIL ALL TRAFFIC CONTROL IS IN PLACE AND APPROVED BY THE DEPARTMENT OF PUBLIC SERVICE INSPECTOR. IF THE CONTRACTOR DOES NOT COMPLY WITH THE STANDARDS, INCLUDING THE INSTALLATION OF TEMPORARY PAVEMENT MARKINGS AND THE REMOVAL OF CONFLICTING TRAFFIC CONTROLS, THEIR PERMIT SHALL BE REVOKED AND ALL WORK SHALL BE TERMINATED. TEMPORARY PAVEMENT MARKINGS TO INCLUDE, BUT NOT LIMITED TO, CHANNELIZING LINES, EDGE LINES, AND CENTERLINES SHALL BE INSTALLED AND MAINTAINED ON ALL CONSTRUCTION OPERATIONS LASTING A MINIMUM OF 14 CALENDAR DAYS OR AS DIRECTED BY THE TEMPORARY TRAFFIC CONTROL COORDINATOR OR THE PROJECT ENGINEER.

3. THE CONTRACTOR SHALL GIVE ADVANCE NOTIFICATION (WRITTEN AND VERBALLY) TO THE TEMPORARY TRAFFIC CONTROL COORDINATOR AT 614-645-0355 OR 614-645-5845, WRITTEN NOTIFICATION TO PAVING THE WAY AT PAVINGTHEWAY@MORPC.ORG OR VERBAL TO 614-233-4200 , PROJECT ENGINEER, AND THE SENIOR SERVICE PLANNER OF COTA AT 614-308-4373 OR FAX 614-275-5933, INFORMING THEM OF ALL UPCOMING MAINTENANCE OF TRAFFIC CHANGES ON A WEEKLY BASIS. NOTIFICATION SHALL INCLUDE, BUT NOT BE LIMITED TO, WHAT, WHERE, WHEN, AND HOW PEDESTRIAN AND VEHICULAR TRAFFIC WILL BE AFFECTED, AND THE TEMPORARY TRAFFIC CONTROL PROCEDURES THE CONTRACTOR IS PLANNING TO USE. THE TYPE OF TRAFFIC CHANCE SHALL DETERMINE THE LENGTH OF ADVANCE NOTIFICATION REQUIRED:

TYPE OF CHANGE	ADVANCE NOTIFICATION NEEDED
DETOURS/ROAD CLOSURES	30-DAY NOTIFICATION PRIOR TO CLOSURE
LANE CLOSURES LASTING 2 WEEKS OR MORE	2-WEEKS
LANE CLOSURES OF LESS THAN 2 WEEKS	3-DAYS
LANE CLOSURES OF 2 DAYS OR LESS	1-DAY

THE COTA SENIOR SERVICE PLANNER SHALL BE CONTACTED 30 DAYS PRIOR TO ANY PLANNED CLOSURE ON ASSIGNED COTA ROUTES. ANY OTHER UNFORESEEN IMPACTS TO TRAFFIC SHALL BE IMMEDIATELY REPORTED AS THEY OCCUR.

4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION AND SAFE MOVEMENT OF PEDESTRIANS THROUGH, AROUND, OR DETOURED AWAY FROM THE CONSTRUCTION SITE. TRAFFIC CONTROL FOR PEDESTRIAN MOVEMENT SHALL BE AS PER CITY OF COLUMBUS CONSTRUCTION AND MATERIAL SPECIFICATIONS, CITY OF COLUMBUS STANDARD CONSTRUCTION DRAWINGS, AND FIGURES 6H-28 (TA-28) AND 6H-29 (TA-29) OF PART VI OF THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. WHEN NOT SHOWN ON A SIGNED PLAN, ALL SIDEWALK DIVERSIONS AND TEMPORARY MID-BLOCK CROSSINGS SHALL BE PRE-APPROVED BY THE PROJECT ENGINEER OR THE TEMPORARY TRAFFIC CONTROL COORDINATOR. ACCESS FOR PEDESTRIAN AND VEHICULAR TRAFFIC TO ALL ADJOINING PROPERTIES SHALL BE MAINTAINED AT ALL TIMES.

5. THE CONTRACTOR SHALL MAINTAIN ALL PERMANENT TRAFFIC CONTROLS NOT IN CONFLICT WITH THE TEMPORARY TRAFFIC CONTROLS THROUGHOUT THIS PROJECT. PERMANENT TRAFFIC CONTROLS MAY BE TEMPORARILY RELOCATED OR COVERED, AS APPROVED BY THE ENGINEER. THE CONTRACTOR SHALL ASSUME ALL LIABILITY FOR MISSING, DAMAGED OR IMPROPERLY PLACED SIGNS.

6. ANY WORK DONE BY THE DEPARTMENT OF PUBLIC SERVICE, INCLUDING INSTALLATION, RELOCATION, REMOVAL AND/OR REPLACEMENT OF TEMPORARY TRAFFIC CONTROL DEVICES AS RESULT OF WORK DONE BY THE CONTRACTOR OR AS A RESULT OF NEGLIGENCE OF THE CONTRACTOR, SHALL BE AT THE CONTRACTOR'S EXPENSE.

7. THE ROADWAY SHALL NOT BE OPENED TO NON-CONSTRUCTION TRAFFIC UNTIL THE CRITICAL PERMANENT TRAFFIC CONTROL ARE IN PLACE, OR UNTIL TEMPORARY TRAFFIC CONTROLS APPROVED BY THE ENGINEER, ARE INSTALLED. THE CRITICAL PERMANENT TRAFFIC CONTROLS ARE STOP, YIELD, ONE-WAY, DO NOT ENTER, RESTRICTED TURN SIGNS AND ALL STREET NAME SIGNS. OTHER CRITICAL SIGNS MAY BE NOTED ON THE PLANS AS WELL. THE CONTRACTOR ASSUMES ALL LIABILITY FOR THE PREMATURE REMOVAL OF TEMPORARY TRAFFIC CONTROLS.

8. ITEM 614 - MAINTAINING TRAFFIC
ALL COSTS THAT CONSIST OF MAINTAINING AND PROTECTING VEHICULAR AND PEDESTRIAN TRAFFIC ACCORDING TO THE LATEST EDITION OF THE CITY OF COLUMBUS CONSTRUCTION AND MATERIAL SPECIFICATIONS, THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR THE STREETS AND HIGHWAYS (OMUTCD), AND PER THE REQUIREMENTS DESIGNATED IN THE PLAN INCLUDING ALL LAW ENFORCEMENT OFFICER (LEO) AND FLAGGER HOURS SHALL BE INCLUDED IN THE LUMP SUM ITEM 614.

IN ADDITION TO THE REQUIREMENTS HEREIN, AND THE LATEST EDITION OF THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES, A UNIFORMED LAW ENFORCEMENT OFFICER (LEO) SHALL BE PROVIDED FOR CONTROLLING TRAFFIC UNDER THE FOLLOWING CONDITIONS:

- WORK WITHIN A SIGNALIZED INTERSECTION, DEFINED AS THE AREA BOUNDED BY THE REAR CROSSWALK LINES
- WHEN FLAGGING WITHIN THE INTERSECTION OF TWO ARTERIAL ROADWAYS
- WHEN SPECIFIED IN THE MAINTENANCE OF TRAFFIC PLAN OR WHEN DIRECTED BY THE PROJECT ENGINEER
- WHEN SHIFTING TRAFFIC LEFT OF CENTER, THROUGH A SIGNALIZED INTERSECTION, WITHOUT SHIFTING SIGNAL HEADS

A FLAGGER SHALL BE UTILIZED TO ASSIST IN CONTROLLING TRAFFIC WHILE EQUIPMENT IS ENTERING OR EXITING AN INTERSECTION OR WORK ZONE. THE CONTRACTOR MAY UTILIZE HIS OWN FLAGGER OR LEO UNDER PAY ITEM 614 MAINTAINING TRAFFIC, LUMP SUM.

FLAGGERS AND LEO'S SHALL BE EQUIPPED ACCORDING TO THE STANDARDS FOR FLAGGING TRAFFIC CONTAINED IN THE OMUTCD. FLAGGING OPERATIONS PERFORMED BY LEO'S OR DESIGNATED FLAGGERS SHALL ONLY BE PERMITTED AS LONG AS ALL TRAFFIC CONTROL IS IN PLACE ACCORDING TO FIGURE 6H-10 (TA-10) IN THE OHIO MANUAL. PATROL CARS SHALL NOT BE USED IN FLAGGING OPERATIONS.

IF THE CONTRACTOR WISHES TO UTILIZE LEO'S WITH OR WITHOUT PATROL CARS FOR TRAFFIC CONTROL OTHER THAN FOR THAT REQUIRED IN THE PLANS, THEY MAY DO SO AT THEIR OWN EXPENSE. THE CONTRACTOR SHALL MAKE ARRANGEMENT THROUGH THE COLUMBUS POLICE DIVISION AT (614) 645-4795.

LEO'S SHALL BE CONSIDERED TO BE EMPLOYED BY THE CONTRACTOR AND THE CONTRACTOR SHALL BE RESPONSIBLE FOR THEIR ACTIONS. ALTHOUGH EMPLOYED BY THE CONTRACTOR, THE CITY REPRESENTATIVE SHALL HAVE CONTROL OVER THEIR PLACEMENT. LEO'S SHALL NOT HAVE THE AUTHORITY TO CHANGE, EDIT OR MODIFY ANY MAINTENANCE OF TRAFFIC SCHEME WITHOUT THE PERMISSION OF THE TEMPORARY TRAFFIC CONTROL COORDINATOR OR PROJECT ENGINEER UNLESS AN EMERGENCY DEVELOPS.

IF A SAFETY HAZARD DEVELOPS, A LEO MAY BE ASSIGNED BY THE COLUMBUS PUBLIC SAFETY AND/OR THE PUBLIC SERVICE DIRECTOR AT THE CONTRACTOR'S EXPENSE.

ITEM 614 - LAW ENFORCEMENT OFFICER (LEO) WITH PATROL CAR, AS PER PLAN

IN ADDITION TO THE LEO AND FLAGGER HOURS INCLUDED IN ITEM 614 MAINTAINING TRAFFIC, LUMP SUM; THE FOLLOWING QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY TO BE USED AS DIRECTED BY THE ENGINEER OR AN ACCEPTABLE REPRESENTATIVE FOR THE CITY OF COLUMBUS. THE OFFICIAL PATROL CAR WITH TOP MOUNTED EMERGENCY FLASHING LIGHTS SHALL BE A PUBLIC SAFETY VEHICLE AS REQUIRED BY THE OHIO REVISED CODE. THE CONTRACTOR SHALL BE PAID FOR THIS BID ITEM ONLY IF DIRECTED BY THE ENGINEER.

ITEM 614 - LAW ENFORCEMENT OFFICER WITH PATROL CAR, AS PER PLAN - 100 HOURS

ITEM 614 - LAW ENFORCEMENT OFFICER (LEO) WITHOUT PATROL CAR, AS PER PLAN

IN ADDITION TO THE LEO AND FLAGGER HOURS INCLUDED IN ITEM 614 MAINTAINING TRAFFIC, LUMP SUM; THE FOLLOWING QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY TO BE USED AS DIRECTED BY THE ENGINEER OR AN ACCEPTABLE REPRESENTATIVE FOR THE CITY OF COLUMBUS. THE CONTRACTOR SHALL BE PAID FOR THIS BID ITEM ONLY IF DIRECTED BY THE ENGINEER.

ITEM 614 - LAW ENFORCEMENT OFFICER WITHOUT PATROL CAR, AS PER PLAN - 40 HOURS

9. PORTABLE CHANGEABLE MESSAGE SIGNS (PCMS) SHALL BE INSTALLED A MINIMUM OF 7 DAYS PRIOR TO CLOSURE OF A ROADWAY. THE MESSAGE SHALL ADVISE THE MOTORIST OF THE DATES, TIMES, AND DURATION OF THE CLOSURE. THE PCMS SHALL REMAIN IN PLACE FOR 7 DAYS AFTER THE START OF THE CLOSURE.

10. WHEN NOT INCLUDED IN A SIGNED PLAN, A TTC PLAN (TTCP) INCLUDING PEDESTRIAN CONTROL SHALL BE SUBMITTED TO THE TTC COORDINATOR AT 614-645-0355 OR 614-645-5845 AT THE PRE-CONSTRUCTION MEETING OR A MINIMUM OF TEN (10) WORKING DAYS PRIOR TO BEGINNING WORK FOR APPROVAL. COPIES OF THE APPROVED TTCP SHALL BE GIVEN TO THE PROJECT ENGINEER AND KEPT ON SITE ALONG WITH THE STREET CLOSURE/OCCUPANCY PERMIT.

11. TYPE C STEADY-BURN OR TYPE D 360-DEGREE STEADY-BURN WARNING LIGHTS SHALL BE REQUIRED ON ALL BARRICADES, DRUMS, AND SIMILAR TRAFFIC CONTROL DEVICES IN USE AT NIGHT. ONLY 42" REFLECTORIZED CHANNELIZING DEVICES (CONES) SHALL BE PERMITTED FOR NIGHTTIME WORK WITH THE APPROVAL OF THE TTC COORDINATOR AT 614-645-0355 OR 614-645-5845 PER O.D.O.T. STANDARDS.

12. A FLASHING ARROW PANEL (48" X 96"-TYPE C) SHALL BE USED IN LANE CLOSURES AS PER THE OHIO MANUAL.

13. ALL TRENCHES WITHIN THE ROAD RIGHT OF WAY SHALL BE BACKFILLED OR SECURELY PLATED PER (CITY OF COLUMBUS GENERAL POLICY ON STEEL PLATE USAGE DATED 11/15/2006 AND STD. DWG. 1441, LATEST EDITION) DURING NON-WORKING HOURS.

14. TWO-WAY, TWO-LANE (ONE-LANE EACH DIRECTION) TRAFFIC SHALL BE MAINTAINED AT ALL TIMES ON LONDON GROVEPORT ROAD DURING PHASE ONE CONSTRUCTION EXCEPT WHILE INSTALLING TEMPORARY PAVEMENT WHEN TRAFFIC SHALL BE MAINTAINED VIA FLAGGER PER ODOT SCD MT-97.10.

15. TWO-WAY, TWO-LANE (ONE-LANE EACH DIRECTION) TRAFFIC SHALL BE MAINTAINED AT ALL TIMES ON LONDON GROVEPORT ROAD DURING PHASE TWO BY USE OF EXISTING, PROPOSED, OR TEMPORARY PAVEMENT PER CITY OF COLUMBUS MAINTENANCE OF TRAFFIC, STANDARD CONSTRUCTION DRAWING 1510 AND FIGURE 6H-32 TYPICAL APPLICATION 32 (TA-32) OF THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.

17. THE CONTRACTOR SHALL CONTACT OHIO UTILITY PROTECTION SERVICE (OUPS) TO LOCATE AND MARK ALL UNDERGROUND TRAFFIC CONTROL CABLES PRIOR TO THE BEGINNING OF ANY WORK WITHIN 450 FEET OF ANY SIGNALIZED INTERSECTIONS(S) OR WITHIN ANY POSTED AREA WHERE THE DEPARTMENT HAS UNDERGROUND CABLE. THE SIGNAL OPERATION ENGINEER (614-645-6418) SHALL BE NOTIFIED SIX (6) WEEKS IN ADVANCE FOR SIGNAL REVISIONS OR POLE RELOCATIONS.

18. WHEN ANY TRAFFIC CONTROL DEVICE, CONDUIT, OR CABLE IS DAMAGED, THE CONTRACTOR SHALL NOTIFY SIGNAL OPERATION PERSONNEL AT 614-645-0423 (CELL 614-419-4501) BETWEEN 7:00 A.M. AND 4:00 P.M., MONDAY THROUGH FRIDAY. IF UNABLE TO MAKE CONTACT THROUGH THE OTHER NUMBERS, CALL 614-645-7393.

19. THE ROADWAY OR ANY SECTION OF ROADWAY SHALL NOT BE OPENED TO NON-CONSTRUCTION TRAFFIC UNTIL ALL TEMPORARY, NON-REFLECTIVE, BLACKOUT TAPE HAS BEEN COMPLETELY REMOVED FROM NON-CONFLICTING PERMANENT PAVEMENT MARKINGS FOR THAT AREA OF THE ROADWAY, OR UNLESS OTHERWISE DIRECTED IN WRITING BY THE ENGINEER. THIS IS SUPPLEMENTAL TO THE CMS-614.1I-G, AND SHALL BE PAID FOR THROUGH THE 614 - LUMP SUM.

20. WHENEVER YELLOW CENTER LINES OR TURN-LANE LINE ARE PAVED OVER, REMOVED, OR OTHERWISE UNSERVICEABLE, THE CONTRACTOR SHALL INSTALL CLASS II TEMPORARY STRIPING (MINIMUM 4' LONG SEGMENTS). TEMPORARY PAINT SHALL BE USED ON ALL MILLED SURFACES. TEMPORARY TAPE SHALL BE USED ON ALL FINAL COURSES OF ASPHALT. PAINT OR TAPE MAY BE USED ON ALL INTERMEDIATE COURSES OF ASPHALT. IF APPROVED BY THE ENGINEER, DRUMS WITH STEADY BURNING TYPE C OR TYPE D 360 DEGREE WARNING LIGHTS AND "KEEP RIGHT" SIGNS MAY BE SUBSTITUTED FOR CENTERLINE MARKINGS.

21. CLASS II TEMPORARY STRIPING (MINIMUM 4' LONG SEGMENTS) SHALL BE AS PER ITEM 614-WORK ZONE PAVEMENT MARKINGS AND SHALL BE PLACED WITHIN ONE (1) FOOT LONGITUDINAL TOLERANCE OF THE PERMANENT STRIPE(S). ALL TEMPORARY STRIPING NOT TO WITHIN ONE (1) FOOT TOLERANCE SHALL BE REMOVED AND REPLACED IN THE PROPER LOCATION BY THE CONTRACTOR. CLASS II TEMPORARY STRIPING SHALL BE OF THE APPROPRIATE COLOR AND SPACED AT A MAXIMUM OF FORTY (40) FEET CENTER TO CENTER.

ITEM 614 - LAW ENFORCEMENT OFFICER (WITH PATROL CAR) FOR ASSISTANCE DURING CONSTRUCTION OPERATIONS

USE OF LAW ENFORCEMENT OFFICERS (LEOS) BY CONTRACTORS OTHER THAN THE USES SPECIFIED BELOW WILL NOT BE PERMITTED AT PROJECT COST. LEOS SHOULD NOT BE USED WHERE THE OMUTCD INTENDS THAT FLAGGERS BE USED.

IN ADDITION TO THE REQUIREMENTS OF C&MS 614 AND THE OMUTCD, A UNIFORMED LEO WITH AN OFFICIAL PATROL CAR (CAR WITH TOP-MOUNTED EMERGENCY FLASHING LIGHTS AND COMPLETE MARKINGS OF THE APPROPRIATE LAW ENFORCEMENT AGENCY) SHALL BE PROVIDED FOR THE FOLLOWING TRAFFIC CONTROL TASKS:

- DURING THE ENTIRE ADVANCE PREPARATION AND CLOSURE SEQUENCE WHERE COMPLETE BLOCKAGE OF TRAFFIC IS REQUIRED.
- DURING A TRAFFIC SIGNAL INSTALLATION WHEN IMPACTING THE NORMAL FUNCTION OF THE SIGNAL OR THE FLOW OF TRAFFIC, OR WHEN TRAFFIC NEEDS TO BE DIRECTED THROUGH AN ENERGIZED TRAFFIC SIGNAL CONTRARY TO THE SIGNAL DISPLAYE.G., DIRECTING MOTORISTS THROUGH A RED LIGHT).

IN ADDITION TO THE REQUIREMENT OF C&MS 614 AND THE OMUTCD, A UNIFORMED LEO WITH AN OFFICIAL PATROL CAR (CAR WITH TOP-MOUNTED EMERGENCY FLASHING LIGHTS AND COMPLETE MARKINGS OF THE APPROPRIATE LAW ENFORCEMENT AGENCY)SHOULD BE PROVIDED FOR THE FOLLOWING TRAFFIC CONTROL TASKS AS APPROVED BY THE ENGINEER:

- FOR LANE CLOSURES: DURING INITIAL SET-UP PERIODS, TEAR DOWN PERIODS, SUBSTANTIAL SHIFTS OF A CLOSURE POINT OR WHEN NEW LANE CLOSURE ARRANGEMENTS ARE INITIATED FOR LONG-TERM LANE CLOSURES/SHIFTS (FOR THE FIRST AND LAST DAY OF MAJOR CHANGES IN TRAFFIC CONTROL SETUP).

IN GENERAL, LEOS SHOULD BE POSITIONED IN ADVANCE OF AND ON THE SAME SIDE AS THE LANE RESTRICTION OR AT THE POINT OF ROAD CLOSURE, AND TO MANUALLY CONTROL TRAFFIC MOVEMENTS THROUGH SIGNALIZED INTERSECTIONS IN WORK ZONES.

LEOS SHOULD NOT FORGO THEIR TRAFFIC CONTROL RESPONSIBILITIES TO APPREHEND MOTORISTS FOR ROUTINE TRAFFIC VIOLATIONS. HOWEVER, IF A MOTORIST'S ACTIONS ARE CONSIDERED TO BE RECKLESS, THEN PURSUIT OF THE MOTORIST IS APPROPRIATE.

THE LEOS WORK AT THE DIRECTION OF THE CONTRACTOR. THE CONTRACTOR IS RESPONSIBLE FOR SECURING THE SERVICES OF THE LEOS WITH THE APPROPRIATE AGENCIES AND COMMUNICATING THE INTENTIONS OF THE PLANS WITH RESPECT TO DUTIES OF THE LEOS. THE ENGINEER SHALL HAVE FINAL

CONTROL OVER THE LEOS' DUTIES AND PLACEMENT, AND WILL RESOLVE ANY ISSUES THAT MAY ARISE BETWEEN THE TWO PARTIES.

ENSURE PROVIDED LEOS HAVE BEEN TRAINED APPROPRIATE TO THE JOB DECISIONS THEY ARE REQUIRED TO MAKE WHILE ON THE PROJECT, IN ACCORDANCE WITH C&MS 614.03.

THE LEO SHALL REPORT IN TO THE CONTRACTOR PRIOR TO THE START OF THE SHIFT, IN ORDER TO RECEIVE INSTRUCTIONS REGARDING SPECIFIC WORK ASSIGNMENTS DURING HIS/HER SHIFT.

THE LEO IS EXPECTED TO STAY AT THE PROJECT SITE FOR THE ENTIRE DURATION OF HIS/HER SHIFT. THE LEO SHALL REPORT TO THE CONTRACTOR AT THE END OF HIS/HER SHIFT. SHOULD IT BE NECESSARY TO LEAVE THE PROJECT SITE, THE LEO SHALL NOTIFY THE ENGINEER. THE CONTRACTOR SHALL PROVIDE THE LEO WITH A TWO-WAY COMMUNICATION DEVICE WHICH SHALL BE RETURNED TO THE CONTRACTOR AT THE END OF HIS/HER SHIFT.

BORE PITS, EARTHWORK AND TRENCHES BEYOND THE SHOULDER

BORE PITS, EARTHWORK AND TRENCHES WITHIN ODOT RIGHT-OF-WAY MUST BE OUTSIDE OF THE DITCH SECTION AND PROTECTED IN ACCORDANCE WITH ODOT'S STANDARD CONSTRUCTION DRAWING MT-101.90. "DROPOFFS IN WORK ZONES".
- A PIT/TRENCH 4 TO 12 FEET FROM THE EDGE OF TRAVELED LANE AND GREATER THAN 12 INCHES DEEP MUST HAVE DRUMS DURING THE DAY AND PCB AT NIGHT UNLESS SECURELY PLATED OR BACKFILLED TO WITHIN 12 INCHES. SEE PIS 2010190 FOR ADDITIONAL INFORMATION.
- A PIT/TRENCH 12 TO 30 FEET FROM THE EDGE OF TRAVELED LANE AND GREATER THAN 24 INCHES DEEP MUST HAVE DRUMS DURING THE DAY AND PCB AT NIGHT UNLESS SECURELY PLATED OR BACKFILLED TO WITHIN 24 INCHES. SEE MT-101.90 FOR ADDITIONAL INFORMATION.
THE LENGTH OF THE TRENCH WHICH IS OPEN AT ANY ONE TIME SHALL BE HELD TO A MINIMUM AND SHALL AT ALL TIMES BE SUBJECT TO APPROVAL OF THE ENGINEER.

MUD, DIRT AND DEBRIS

THE TRACKING OR SPILLAGE OF MUD, DIRT OR DEBRIS UPON STATE HIGHWAYS IS PROHIBITED AND ANY SUCH OCCURRENCE SHALL BE CLEANED UP IMMEDIATELY BY THE CONTRACTOR.

VEHICLE PARKING

VEHICLES ARE NOT TO BE PARKED ON THE PAVEMENT. ALL VEHICLES ARE TO BE PARKED PER CMS 614.035 - STORAGE OF EQUIPMENT, VEHICLE AND MATERIAL ON HIGHWAY RIGHTS OF WAY.

PERSONAL PROTECTIVE EQUIPMENT

ODOT REQUIRES ALL CONTRACTORS' PERSONNEL TO WEAR THE CORRECT PPE WHILE WITHIN ODOT RIGHT-OF-WAY. ALL VEHICLES SHALL HAVE THE CORRECT SAFETY EQUIPMENT ALSO.

ACCESS TO PRIVATE PROPERTY

ACCESS TO DRIVES SHALL BE MAINTAINED VIA EXISTING PAVEMENT, TEMPORARY PAVEMENT OR ITEM 304. IN THE EVENT THAT A DRIVE CANNOT BE MAINTAINED AND A CLOSURE IS NEEDED THE CONTRACTOR WILL COORDINATE WITH THE PROPERTY OWNER TO MINIMIZE THE IMPACT TO THE OWNER.

COMMERCIAL PROPERTY WITH MULTIPLE DRIVES MAY HAVE ONE DRIVE CLOSED WHEN WORKING IN THE AREA OF THE DRIVE. COMMERCIAL PROPERTY WITH ONLY ONE DRIVEWAY OR DRIVEWAYS WITH ONE DIRECTION TRAFFIC USE WILL BE CONSTRUCTED PART WIDTH. THE CONTRACTOR WILL COORDINATE WITH THE PROPERTY OWNER TO MINIMIZE THE IMPACT TO THE OWNER.

MAINTAIN ACCESS TO RESIDENTIAL PROPERTIES AT ALL TIMES. WHEN A RESIDENTIAL DRIVE IS CLOSED FOR CONSTRUCTION, MAINTAIN ALTERNATE ACCESS TO THE PROPERTY. IT MAY BE REQUIRED FOR THE CONTRACTOR TO MAINTAIN ONE PASSABLE LANE WITHIN A CLOSURE IN ORDER FOR VEHICLES TO ACCESS RESIDENCY WITH A VEHICLE.

SUCCESSFULLY NOTIFY THE OCCUPANTS/OWNERS OF COMMERCIAL OR RESIDENTIAL DRIVES TO BE CLOSED AND COORDINATE THE CLOSURE AT LEAST 48 HOURS BEFORE THE CLOSURE BEGINS (SIMPLY LEAVING A WRITTEN NOTICE OR PHONE MESSAGE IS NOT SUFFICIENT). COORDINATE ALTERNATE ACCESS TO RESIDENTIAL PROPERTIES WITH THE OWNER/OCCUPANT.

PROTECTION FROM DROP OFF CONDITIONS IN THE WORK ZONE

ALL DROP-OFF CONDITIONS WITHIN THE WORK ZONE MUST BE PROTECTED IN ACCORDANCE WITH STANDARD CONSTRUCTION DRAWING MT-101.90.

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EXISTING PERMANENT TRAFFIC CONTROL

1. ANY WORK DONE BY THE DEPARTMENT OF PUBLIC SERVICE, INCLUDING INSTALLATION, RELOCATION, REMOVAL AND/OR REPLACEMENT OF PERMANENT TRAFFIC CONTROL DEVICES AS A RESULT OF WORK DONE BY THE CONTRACTOR OR AS A RESULT OF NEGLIGENCE OF THE CONTRACTOR, SHALL BE AT THE CONTRACTORS' EXPENSE.

2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REINSTALLATION AND/OR REPLACEMENT OF ALL PERMANENT TRAFFIC CONTROL DEVICES DAMAGED OR REMOVED DURING CONSTRUCTION. PERMANENT TRAFFIC CONTROL NO LONGER IN CONFLICT WITH TEMPORARY TRAFFIC CONTROL SHALL BE REPLACED IMMEDIATELY.

3. THE CONTRACTOR SHALL REPLACE ALL PAVEMENT MARKINGS, INCLUDING RAISED PAVEMENT MARKERS (RPM) SHOWN IN CONFLICT, REMOVED DUE TO CONSTRUCTION OR MAINTENANCE OF TRAFFIC SET UP, DESTROYED, OR RENDERED UNSERVICEABLE BY THE PROJECT ENGINEER OR THE PUBLIC SERVICE PAVEMENT MARKING MANAGER. ALL PAVEMENT MARKING MATERIALS SHALL BE REPLACED IN-LIKE KIND IF NOT SHOWN IN THE PLAN OR PERMIT INCLUDING RAISED PAVEMENT MARKERS. ALL PAVEMENT MARKINGS SHALL BE REPLACED IN FULL. NO PARTIAL LENGTH OR SECTIONS OF PAVEMENT MARKINGS SHALL BE REPLACED WITHOUT REMOVING THE ENTIRE MARKING BY USE OF THE WATER BLAST METHOD. REMOVAL BY ABRASIVE WHEEL GRINDING SHALL ONLY BE APPROVED BY THE PUBLIC SERVICE PAVEMENT MARKING MANAGER.

4. ALL OVERHEAD CABLE, AND DOWN GUYS OR BACK GUYS SHALL NOT BLOCK ANY PORTION OF A TRAFFIC SIGNAL, TRAFFIC CONTROL SIGN, OR OTHER TRAFFIC CONTROL DEVICE SUCH THAT VISIBILITY OR OPERATION OF THE TRAFFIC CONTROL DEVICE IS IMPAIRED.

5. ALL PERMANENT PAVEMENT MARKINGS AND TRAFFIC CONTROL SIGNS AS SHOWN ON THIS PLAN SHALL BE INSTALLED BY THE CONTRACTOR AT THE PROJECTS EXPENSE. THE PROJECT ENGINEER SHALL BE NOTIFIED TO DIRECT APPROPRIATE PERSONNEL A MINIMUM OF FORTY-EIGHT (48) HOURS (EXCLUDING SAT. & SUN.) PRIOR TO THE INSTALLATION OF PERMANENT MARKINGS TO INSPECT AND APPROVE THE PAVEMENT MARKING LAYOUT PRIOR TO PLACING THE PERMANENT MARKINGS.

6. PERMANENT STRIPING SHALL BE INSTALLED NO LATER THAN FOURTEEN (14) CALENDAR DAYS AFTER THE FINAL PAVING COURSE IS COMPLETED. THE PAVING CONTRACTOR SHALL BE RESPONSIBLE TO NOTIFY THE STRIPING CONTRACTOR TO INSURE THE PERMANENT STRIPING IS INSTALLED WITHIN THE FOURTEEN (14) CALENDAR DAY LIMIT.

7. IF THE DEPARTMENT OF PUBLIC SERVICE IS TO INSTALL PERMANENT STRIPING, THE PROJECT ENGINEER SHALL BE NOTIFIED TO DIRECT APPROPRIATE PERSONNEL A MINIMUM OF TEN (10) WORKING DAYS PRIOR TO THE APPLICATION OF THE FINAL COURSE OF PAVEMENT.

LANES OPEN DURING HOLIDAYS AND SPECIAL EVENTS

NO WORK SHALL BE PERFORMED AND THE SAME NUMBER OF LANES AS WERE AVAILABLE AT THE START OF THE PROJECT SHALL BE OPEN TO TRAFFIC DURING THE FOLLOWING DESIGNATED HOLIDAYS OR SPECIAL EVENTS:

HOLIDAYS

NEW YEAR'S (OBSERVED)	LABOR DAY
TOTAL SOLAR ECLIPSE (4/8/24)	GENERAL/REGULAR ELECTION DAY (NOV)
MEMORIAL DAY	THANKSGIVING
FOURTH OF JULY (OBSERVED)	CHRISTMAS (OBSERVED)

THE PERIOD OF TIME THAT THE LANES ARE TO BE OPEN DEPENDS ON THE DAY OF THE WEEK ON WHICH THE HOLIDAY OR EVENT FALLS. THE FOLLOWING SCHEDULE SHALL BE USED TO DETERMINE THIS PERIOD:

DAY OF HOLIDAY OR EVENT	TIME ALL LANES MUST BE OPEN TO TRAFFIC
SUNDAY	12:00 NOON FRIDAY THROUGH 6:00 AM MONDAY
MONDAY	12:00 NOON FRIDAY THROUGH 6:00 AM TUESDAY
MONDAY (TOTAL SOLAR ECLIPSE)	12:00 NOON FRIDAY THROUGH 6:00 AM WEDNESDAY
TUESDAY	12:00 NOON MONDAY THROUGH 6:00 AM WEDNESDAY
TUESDAY (GEN./REG. ELECTION)	5:00 AM TUESDAY THROUGH 12:00 AM WEDNESDAY
WEDNESDAY	12:00 NOON TUESDAY THROUGH 6:00 AM THURSDAY
THURSDAY	12:00 NOON WEDNESDAY THROUGH 6:00 AM FRIDAY
THANKSGIVING	6:00 AM WEDNESDAY THROUGH 6:00 AM MONDAY
FRIDAY	12:00 NOON THURSDAY THROUGH 6:00 AM MONDAY
SATURDAY	12:00 NOON FRIDAY THROUGH 6:00 AM MONDAY

NO EXTENSTIONS OF TIME SHALL BE GRANTED FOR DELAYS IN MATERIAL DELIVERIES, UNLESS SUCH DELAYS ARE INDUSTRY WIDE, OR FOR LABOR STRIKES, UNLESS SUCH STRIKES ARE AREA WIDE.

NOTIFICATION OF TRAFFIC RESTRICTIONS

THROUGHOUT THE DURATION OF THE PROJECT, THE CONTRACTOR SHALL NOTIFY THE PROJECT MANAGER OR COUNTY MANAGER, THE DISTRICT 6 PUBLIC INFORMATION OFFICE AT D06.P10@DOT.OHIO.GOV AND THE DISTRICT WORK ZONE TRAFFIC MANAGER AT GARY.FETHEROLF@DOT.OHIO.GOV IN WRITING OF ALL TRAFFIC RESTRICTIONS AND UPCOMING MAINTENANCE OF TRAFFIC CHANGES. THE CONTRACTOR SHALL ENSURE THE WRITTEN NOTIFICATION IS SUBMITTED IN A TIMELY MANNER TO ALLOW THE PROJECT ENGINEER TO MEET THE REQUIRED TIME FRAMES SET FORTH IN THE TABLE BELOW TO INFORM SPECIAL HAULING PERMITS SECTION (HAULING.PERMITS@DOT.OHIO.GOV) AND THE DISTRICT PUBLIC INFORMATION OFFICE (PIO). THIS NOTIFICATION SHALL BE RECEIVED BY THE PROJECT ENGINEER PRIOR TO THE PHYSICAL SETUP OF ANY APPLICABLE SIGNS OR MESSAGE BOARDS.

INFORMATION SHOULD INCLUDE BUT IS NOT LIMITED TO ALL CONSTRUCTION ACTIVITIES THAT IMPACT OR INTERFERE WITH TRAFFIC AND SHALL LIST THE SPECIFIC LOCATION, TYPE OF WORK, ROAD STATUS, DATE AND TIME OF RESTRICTION, DURATION OF RESTRICTION, NUMBER OF LANES MAINTAINED, NUMBER OF LANES CLOSED, MINIMUM VERTICAL CLEARANCE, MINIMUM WIDTH OF DRIVABLE PAVEMENT, DETOUR ROUTES IF APPLICABLE, AND ANY OTHER INFORMATION REQUESTED BY THE PROJECT ENGINEER.

NOTIFICATION TIME FRAME TABLE			
ITEM	DURATION OF CLOSURE	NOTIFICATION DUE TO DISTRICT 6 COMMUNICATIONS OFFICE	SIGN DISPLAYED TO PUBLIC
RAMP & ROAD CLOSURES	>= 2 WEEKS	21 CALENDAR DAYS PRIOR TO CLOSURE	14 CALENDAR DAYS PRIOR TO CLOSURE
	> 12 HOURS & < 2 WEEKS	14 CALENDAR DAYS PRIOR TO CLOSURE	7 CALENDAR DAYS PRIOR TO CLOSURE
	<= 12 HOURS	4 BUSINESS DAYS PRIOR TO CLOSURE	2 BUSINESS DAYS PRIOR TO CLOSURE
LANE CLOSURES & RESTRICTIONS	>= 2 WEEKS	14 CALENDAR DAYS PRIOR TO CLOSURE	
	< 2 WEEKS	5 BUSINESS DAYS PRIOR TO CLOSURE	
START OF CONSTRUCTION & TRAFFIC PATTERN CHANGES	N/A	14 CALENDAR DAYS PRIOR TO IMPLEMENTATION	

ANY UNFORESEEN CONDITIONS NOT SPECIFIED IN THE PLANS REQUIRING TRAFFIC RESTRICTIONS SHALL ALSO BE REPORTED TO THE PROJECT MANAGER OR COUNTY MANAGER, THE DISTRICT 6 PUBLIC INFORMATION OFFICE AND THE DISTRICT WORK ZONE TRAFFIC MANAGER USING THE NOTIFICATION TIME FRAME TABLE. APPLICANT SHALL FILL OUT AND SUBMIT TO PIO & DWZTM ODOT DISTRICT SIX - PERMIT AND LOCAL LET CLOSURE AND RESTRICTION FORM EXCEL WHEN NOTIFYING THEM OF THE UPCOMING TRAFFIC RESTRICTION.

PERMITS

THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL REQUIRED PERMITS IN ADVANCE OF ANY WORK BEING DONE IN ALL LOCAL AGENCIES RIGHT OF WAY BY THE CONTRACTOR OR SUB CONTRACTORS AS REQUIRED BY CMS 107.02.

FRANKLIN COUNTY PERMIT

THE CONTRACTOR SHALL CONTACT UTILITIES COORDINATOR AT (614) 525-3063 TO SECURE A WRITTEN PERMIT FROM THE FRANKLIN COUNTY ENGINEER'S OFFICE, 970 DUBLIN RD, A MINIMUM OF FIVE WORKING DAYS PRIOR TO BEGINNING WORK WITHIN FRANKLIN COUNTY R/W. THE CONTRACTOR MAY BE REQUIRED TO POST A BOND WITH THE FRANKLIN COUNTY ENGINEER PRIOR TO ISSUANCE OF THE PERMIT TO INSURE PROPER RESTORATION OF THE PAVEMENT AND R/W. THE CONTRACTOR SHALL PROVIDE THE FRANKLIN COUNTY ENGINEER'S OFFICE A 24-HOUR TELEPHONE NUMBER TO BE USED IN CASE OF AN EMERGENCY.

FRANKLIN COUNTY ENGINEER'S MONUMENTATION

THE CONTRACTOR SHALL CONTACT THE FRANKLIN COUNTY ENGINEER'S OFFICE, SURVEY DEPARTMENT AT (614-525-2489) TWO WORKING DAYS BEFORE DISTURBING ANY FRANKLIN COUNTY GEODETIC MONUMENTS (VERTICAL AND/OR HORIZONTAL) FOR REFERENCE AND REPLACEMENT.

UNTREATED SEPTIC CONNECTIONS

THIS PLAN MAKES NO PROVISION FOR CONNECTING, NOR SHALL THE ENGINEER OR CONTRACTOR CONNECT, ANY UNTREATED SEPTIC DRAINAGE INTO THE HIGHWAY DRAINAGE SYSTEM. ANY PIPE POSSIBLY CARRYING UNTREATED SEPTIC FLOW SHALL BE LEFT EXPOSED. CALL FRANKLIN COUNTY PUBLIC HEALTH AT (614) 525-3909 AND THE FRANKLIN COUNTY DRAINAGE ENGINEER'S OFFICE AT (614) 525-5138 OR (614) 525-2787 FOR DIRECTION ON WHETHER OR NOT TO TIE THE PIPE INTO THE HIGHWAY DRAINAGE SYSTEM OR PLUG THE PIPE AT R/W LINE W/ CLASS C CONCRETE. PAYMENT FOR PLUGGING SHALL BE INCLUDED IN CONTRACT PRICE FOR THE PERTINENT 202 OR 203 ITEM.

EXISTING/UNIDENTIFIED STORM SEWERS

IF ANY EXISTING STORM SEWERS OR FIELD TILES ARE ENCOUNTERED DURING CONSTRUCTION, LEAVE EXPOSED AND CONTACT THE FRANKLIN COUNTY DRAINAGE ENGINEER'S OFFICE AT (614) 525-5138 OR (614) 525-2787 TO HAVE THE EXISTING TILE SIZE, COMPOSITION, HORIZONTAL LOCATION, AND FLOWLINE SURVEYED.

EROSION CONTROL

THE CONTRACTOR SHALL FILE A NOTICE OF INTENT AS PER NPDES REQUIREMENTS INCLUDING ANY OFFSITE DUMPING OR BORROW AREAS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THEIR SUBCONTRACTORS OF THE OEPA REQUIREMENTS. FURNISH COPIES OF THE DOCUMENTS TO FCEO.

DELINEATION OF PORTABLE AND PERMANENT BARRIER

BARRIER REFLECTORS AND OBJECT MARKERS SHALL BE INSTALLED ON ALL PORTABLE BARRIER (PB) USED FOR TRAFFIC CONTROL; AND, ON PERMANENT CONCRETE BARRIER (INCLUDING BRIDGE PARAPETS) LOCATED WITHIN 5 FEET OF THE EDGE OF THE ADJACENT TRAVEL LANE.

BARRIER REFLECTORS SHALL CONFORM TO C&MS 626, EXCEPT THAT THE SPACING SHALL BE AS PER TRAFFIC SCD MT-101.70. OBJECT MARKERS AND THEIR INSTALLATION SHALL CONFORM TO C&MS 614.03 AND SCD MT-101.70. WHEN THE PB CONTAINS GLARE SCREEN, ONE SET OF THREE VERTICAL STRIPES OF SHEETING SHALL BE CONSIDERED EQUIVALENT TO AN OBJECT MARKER, ONE-WAY.

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE PLANS AND CARRIED TO THE GENERAL SUMMARY:

ITEM 614, BARRIER REFLECTOR, TYPE 1 ONE-WAY 45 EACH
ITEM 614, OBJECT MARKER, ONE-WAY 45 EACH

PAYMENT SHALL BE FULL COMPENSATION FOR ALL MATERIAL, LABOR, INCIDENTALS AND EQUIPMENT NECESSARY FOR FURNISHING, INSTALLING, MAINTAINING AND REMOVING EACH OF THE ABOVE ITEMS.

NOTE: CONTRACTOR IS TO REPAIR THE EXISTING SHOULDER OPPOSITE THE WIDENING PRIOR TO SHIFTING ANY TRAFFIC ONTO SHOULDER AT NO ADDITIONAL COST.

SEQUENCE OF CONSTRUCTION

PHASE 1

CONTRACTOR TO COMPLETE THE ROADWORK ON THE NORTHERN SIDE OF LONDON-GROVEPORT RD WITHIN THE PROJECT LIMITS FROM STA 119+00 TO STA 131+00.

PHASE 2

CONTACTOR TO COMPLETE THE ROADWORK ON THE SOUTHERN SIDE OF LONDON-GROVEPORT ROAD FROM THE BEGINNING OF THE PROJECT LIMITS TO STA 121+25 (THE CURB RETURN FOR THE PROPOSED DRIVE).

PHASE 3

CONTRACTOR TO COMPLETE SHOULDER WORK ON THE WESTERN SIDE OF THE INTERSECTION OF LONDON-GROVERPORT RD AND LASALLE DR FROM STA 112+27 TO STA 119+01. ALONG WITH THE SHOULDER WORK ON THE SOUTH EASTERN SIDE OF THE INTERSECTION FROM STA 121+25 TO STA 125+65.

PHASE 4

CONTRACTOR TO INSTALL EMERGENCY ACCESS DRIVE AND SIDEWALK ALONG LOCKBOURNE RD.

WORK SITE LIGHTING

FLOODLIGHTING OF THE WORK SITE FOR OPERATIONS CONDUCTED DURING NIGHTTIME PERIODS SHALL BE ACCOMPLISHED SO THAT THE LIGHTS DO NOT CAUSE GLARE TO THE DRIVERS ON THE ROADWAY. TO ENSURE THE ADEQUACY OF THE FLOODLIGHT PLACEMENT, THE CONTRACTOR, AND THE ENGINEER SHALL DRIVE THROUGH THE WORK SITE EACH NIGHT WHEN THE LIGHTING IS IN PLACE AND OPERATIVE PRIOR TO COMMENCING ANY WORK. IF GLARE IS DETECTED, THE LIGHT PLACEMENT AND SHIELDING SHALL BE ADJUSTED TO THE SATISFACTION OF THE ENGINEER BEFORE WORK PROCEEDS. PAYMENT FOR ALL LABOR, EQUIPMENT, AND MATERIALS SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 614, MAINTAINING TRAFFIC.

MAINTAINING TRAFFIC

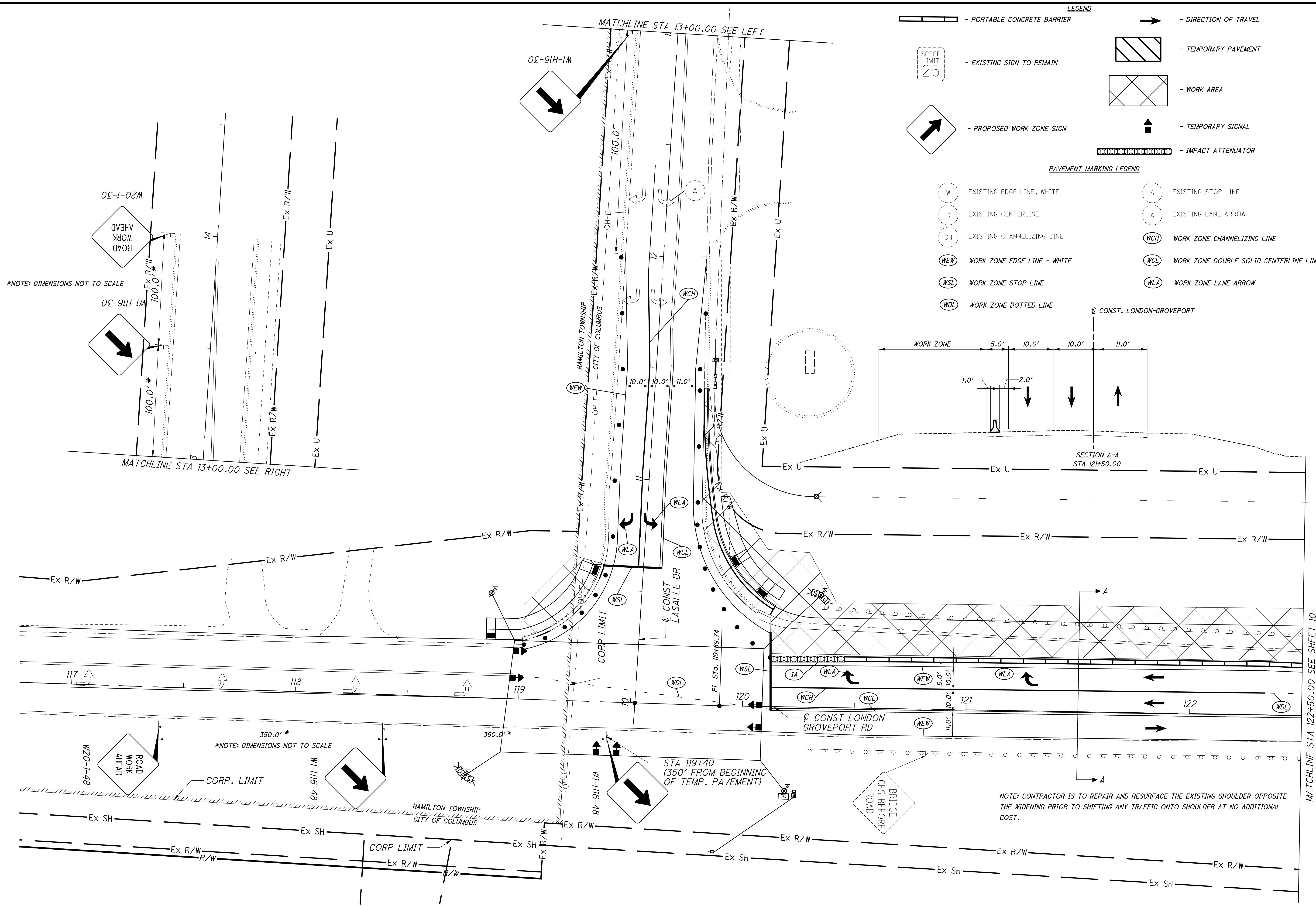
1. ITEM 615 - PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A
TEMPORARY PAVEMENT SHALL BE PAID FOR PER SQUARE YARD. AN ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY. IN ADDITION TO THE LOCATIONS DETAILED IN THE PLAN, TEMPORARY PAVEMENT SHALL BE USED TO TRANSITION BETWEEN BASE PAVEMENT COURSE ELEVATIONS AND PAVER INTERSECTION ELEVATIONS DURING INDIVIDUAL MAINTENANCE OF TRAFFIC PHASES. THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY FOR THIS ITEM.

ITEM 615 - PAVEMENT FOR MAINTAINING TRAFFIC 465 SY

3. ITEM 616 - DUST CONTROL
THE CONTRACTOR SHALL FURNISH AND APPLY WATER FOR DUST CONTROL AS DIRECTED BY THE ENGINEER. THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED FOR DUST CONTROL PURPOSES:

ITEM 616, WATER 20 M. GAL

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LEGEND

- PORTABLE CONCRETE BARRIER
- EXISTING SIGN TO REMAIN
- PROPOSED WORK ZONE SIGN
- TEMPORARY PAVEMENT
- WORK AREA
- TEMPORARY SIGNAL
- IMPACT ATTENUATOR

PAVEMENT MARKING LEGEND

(W)	EXISTING EDGE LINE, WHITE	(S)	EXISTING STOP LINE
(C)	EXISTING CENTERLINE	(A)	EXISTING LANE ARROW
(CH)	EXISTING CHANNELIZING LINE	(WCH)	WORK ZONE CHANNELIZING LINE
(WEW)	WORK ZONE EDGE LINE - WHITE	(WCL)	WORK ZONE DOUBLE SOLID CENTERLINE LINE
(WSL)	WORK ZONE STOP LINE	(WLA)	WORK ZONE LANE ARROW
(WDL)	WORK ZONE DOTTED LINE		

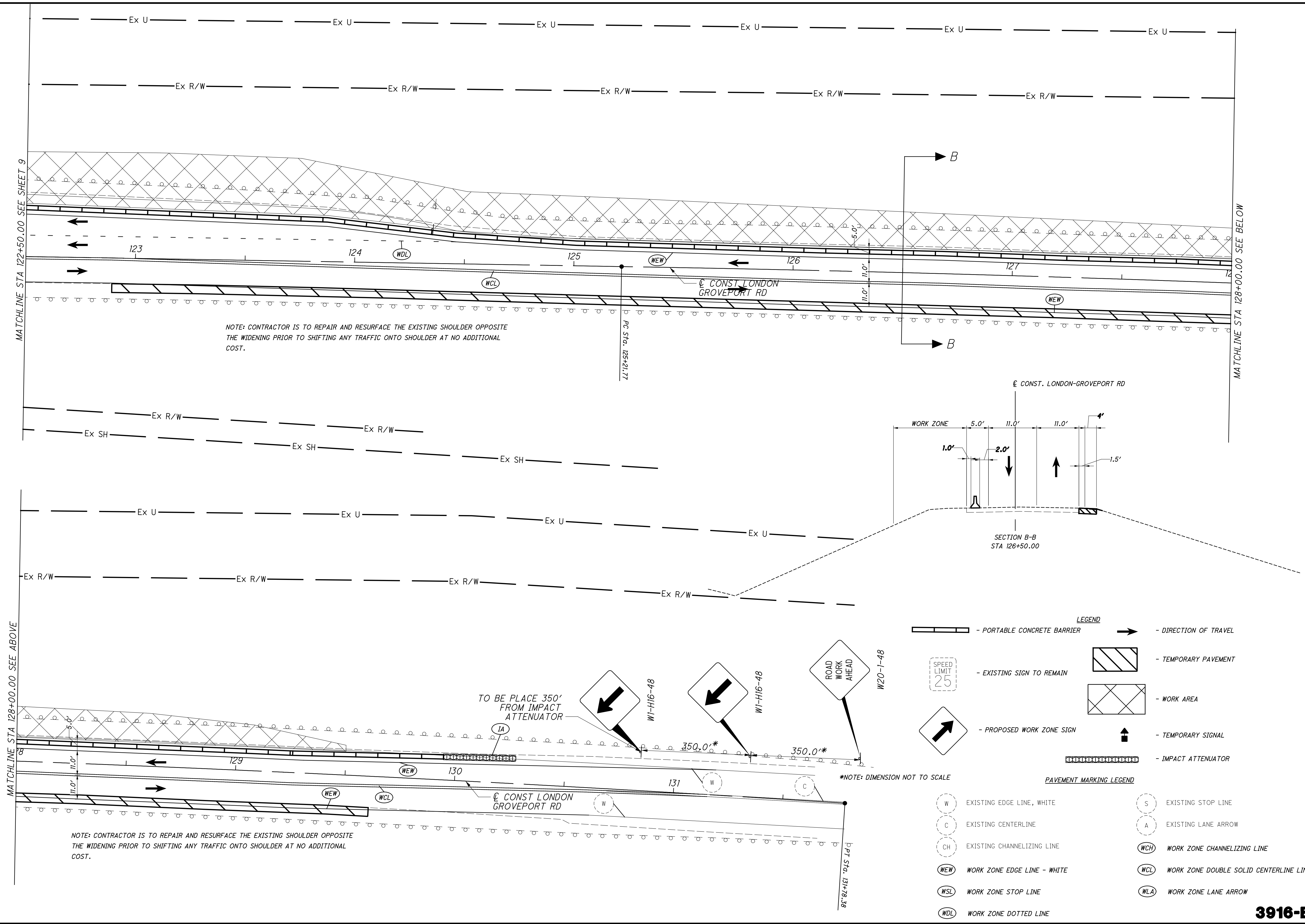
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MAINTENANCE OF TRAFFIC - PHASE 1

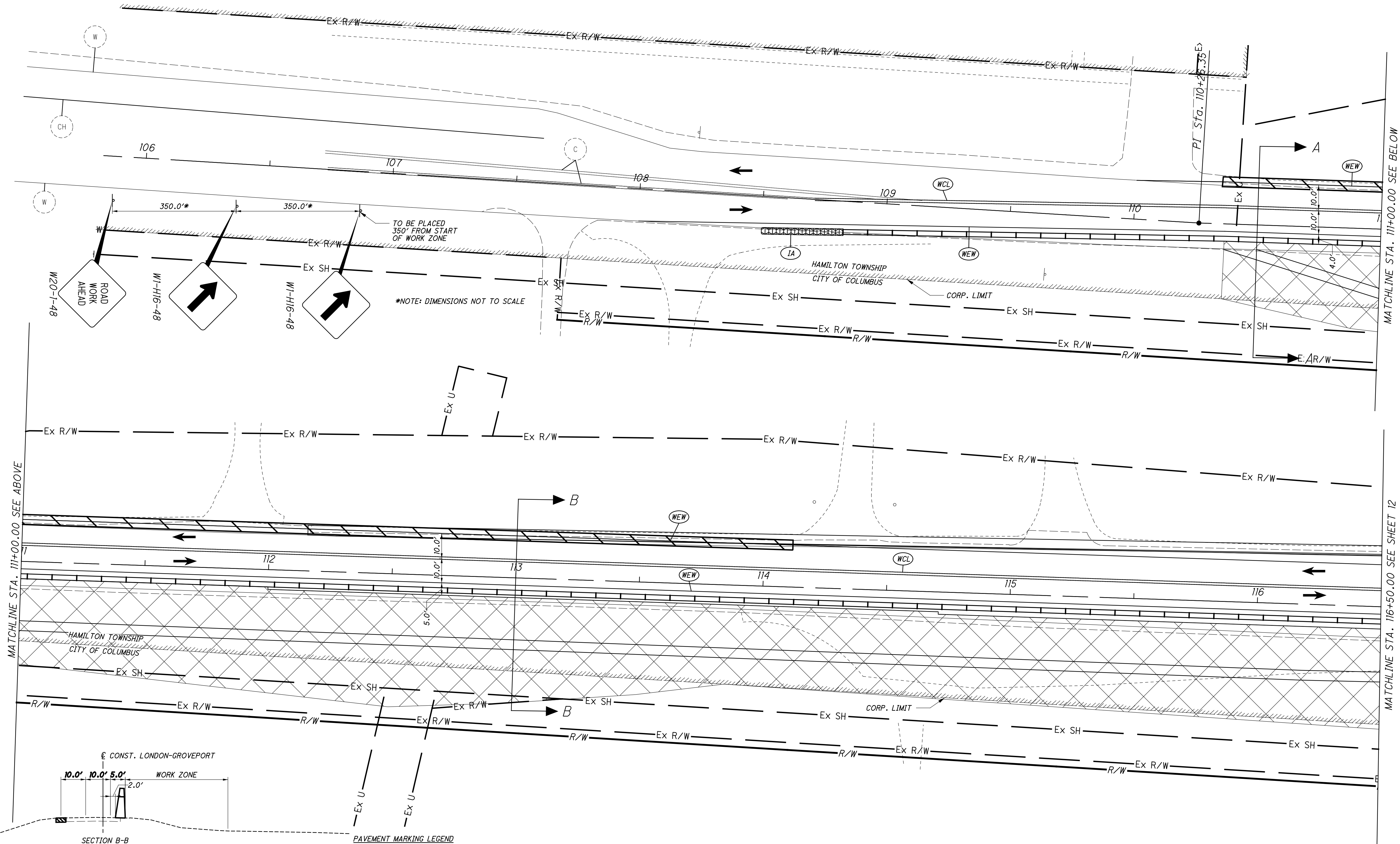
IMPROVEMENTS OF LONDON-GROVEPORT ROAD
FROM 882' WEST OF LASALLE DR
TO 1000' EAST OF LOCKBOURNE ROAD
FROM 2300' SOUTH OF LONDON-GROVEPORT RD
TO 2025' SOUTH OF LONDON-GROVEPORT RD

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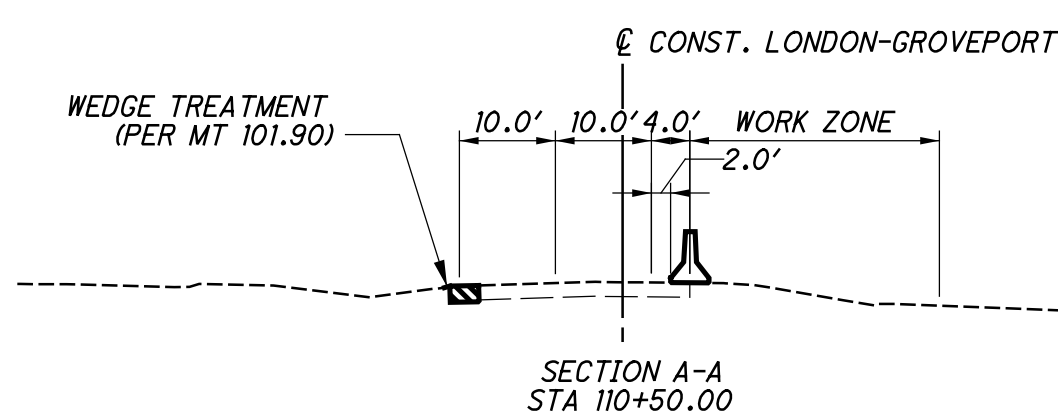
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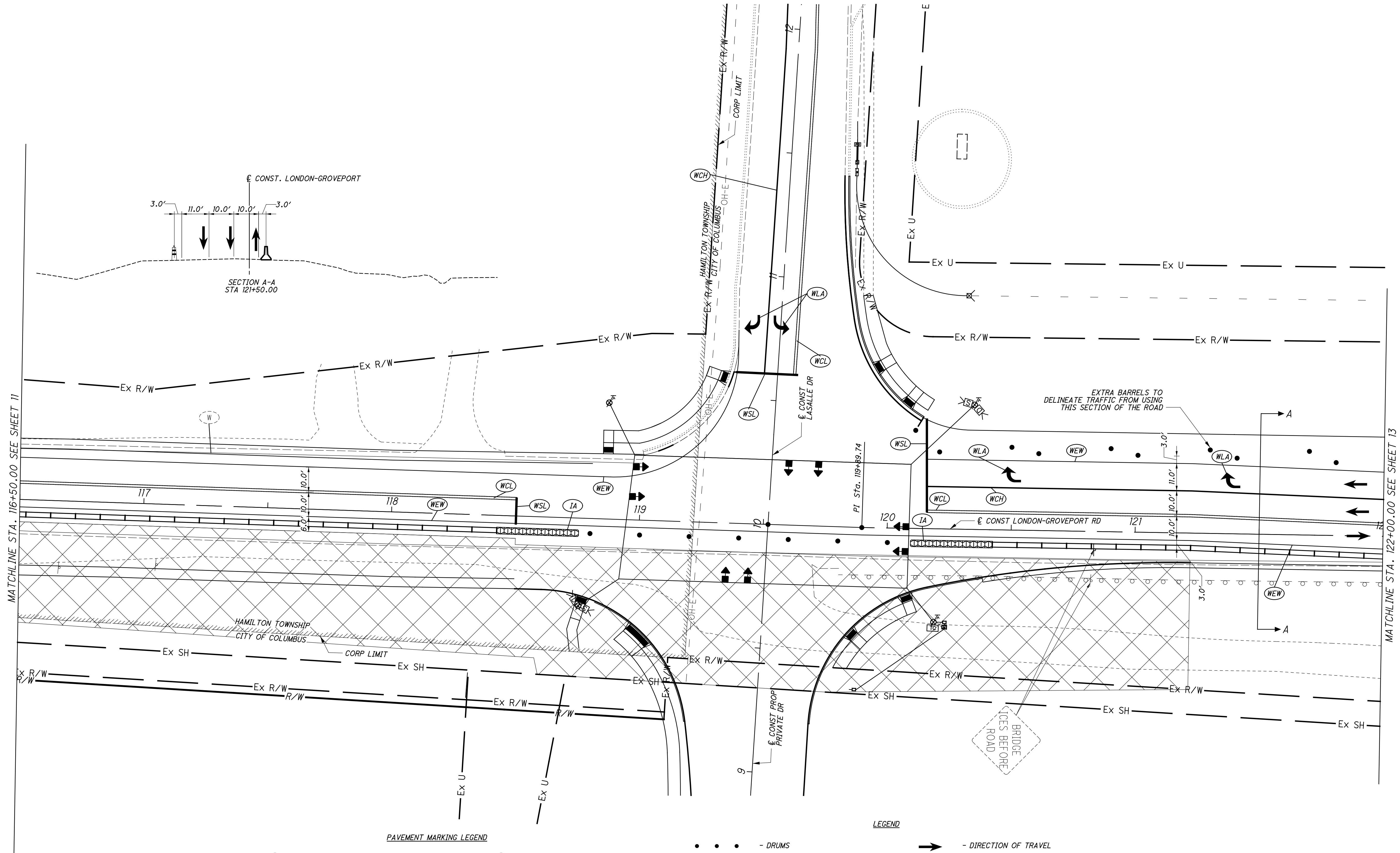
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- (W) EXISTING EDGE LINE, WHITE
 - (C) EXISTING CENTERLINE
 - (CH) EXISTING CHANNELIZING LINE
 - (NEW) WORK ZONE EDGE LINE - WHITE
 - (WSL) WORK ZONE STOP LINE
 - (WDL) WORK ZONE DOTTED LINE

- (S) EXISTING STOP LINE
- (A) EXISTING LANE ARROW
- (WCH) WORK ZONE CHANNELIZING LINE
- (WCL) WORK ZONE DOUBLE SOLID CENTERLINE LINE
- (WLA) WORK ZONE LANE ARROW

- • • - DRUMS
- - DIRECTION OF TRAVEL
- [Hatched Box] - TEMPORARY PAVEMENT
- [Cross-hatched Box] - WORK AREA
- [Up Arrow] - TEMPORARY SIGNAL
- [Impact Attenuator Symbol] - IMPACT ATTENUATOR
- [Speed Limit 25 Sign] - EXISTING SIGN TO REMAIN
- [Proposed Work Zone Sign] - PROPOSED WORK ZONE SIGN



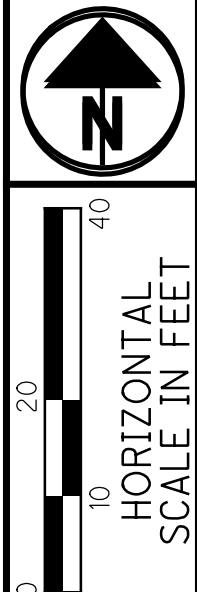
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- PAVEMENT MARKING LEGEND
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 - (C) EXISTING CENTERLINE
 - (CH) EXISTING CHANNELIZING LINE
 - (WEW) WORK ZONE EDGE LINE - WHITE
 - (WSL) WORK ZONE STOP LINE
 - (WDL) WORK ZONE DOTTED LINE

- (S) EXISTING STOP LINE
- (A) EXISTING LANE ARROW
- (WCH) WORK ZONE CHANNELIZING LINE
- (WCL) WORK ZONE DOUBLE SOLID CENTERLINE LINE
- (WLA) WORK ZONE LANE ARROW

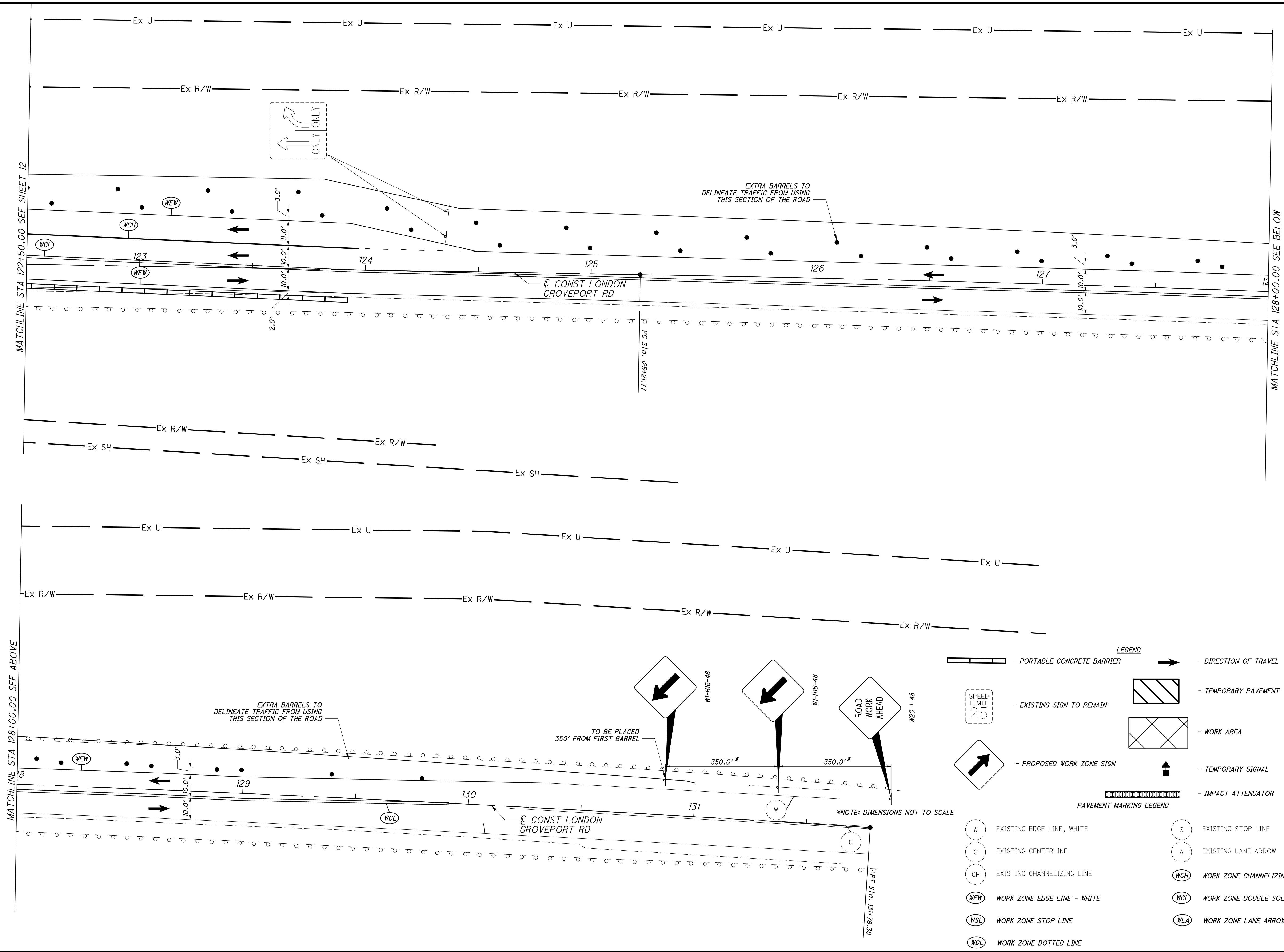
- LEGEND
- • • - DRUMS
 - [SPEED LIMIT 25 SIGN] - EXISTING SIGN TO REMAIN
 - [WORK ZONE SIGN] - PROPOSED WORK ZONE SIGN
 - [DIRECTION OF TRAVEL ARROW] - DIRECTION OF TRAVEL
 - [DIAGONAL HATCH] - TEMPORARY PAVEMENT
 - [X-HATCH] - WORK AREA
 - [TEMPORARY SIGNAL] - TEMPORARY SIGNAL
 - [IMPACT ATTENUATOR] - IMPACT ATTENUATOR



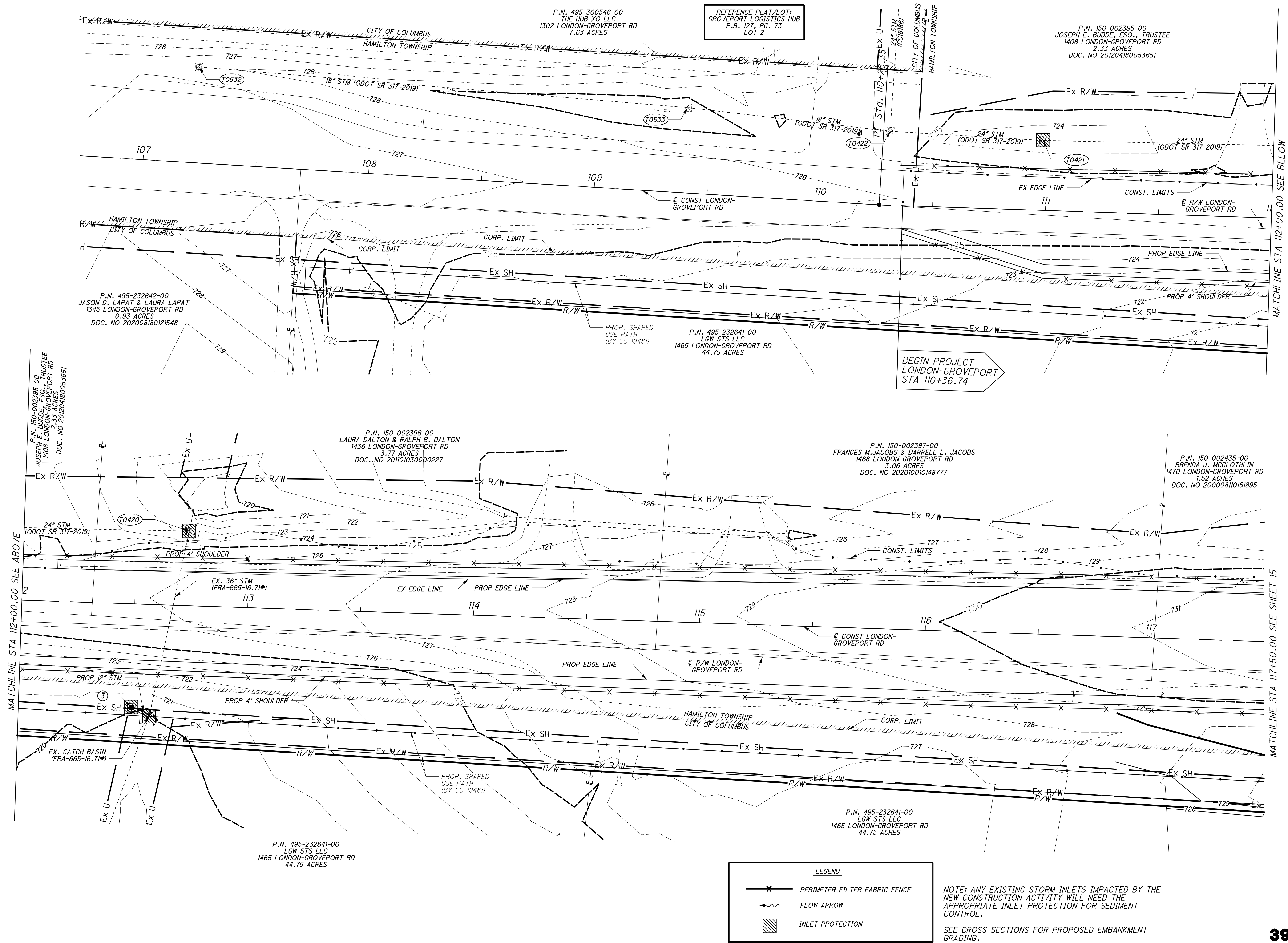
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MAINTENANCE OF TRAFFIC - PHASE 2

IMPROVEMENTS OF LONDON-GROVEPORT ROAD
FROM 860' WEST OF LASALLE DR
TO 1000' EAST OF LASALLE DR
FROM 2300' SOUTH OF LONDON-GROVEPORT RD
TO 2025' SOUTH OF LONDON-GROVEPORT RD



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LEGEND

- PERIMETER FILTER FABRIC FENCE
- FLOW ARROW
- INLET PROTECTION

NOTE: ANY EXISTING STORM INLETS IMPACTED BY THE NEW CONSTRUCTION ACTIVITY WILL NEED THE APPROPRIATE INLET PROTECTION FOR SEDIMENT CONTROL.

SEE CROSS SECTIONS FOR PROPOSED EMBANKMENT GRADING.

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HORIZONTAL SCALE IN FEET

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STORM WATER POLLUTION PREVENTION PLAN

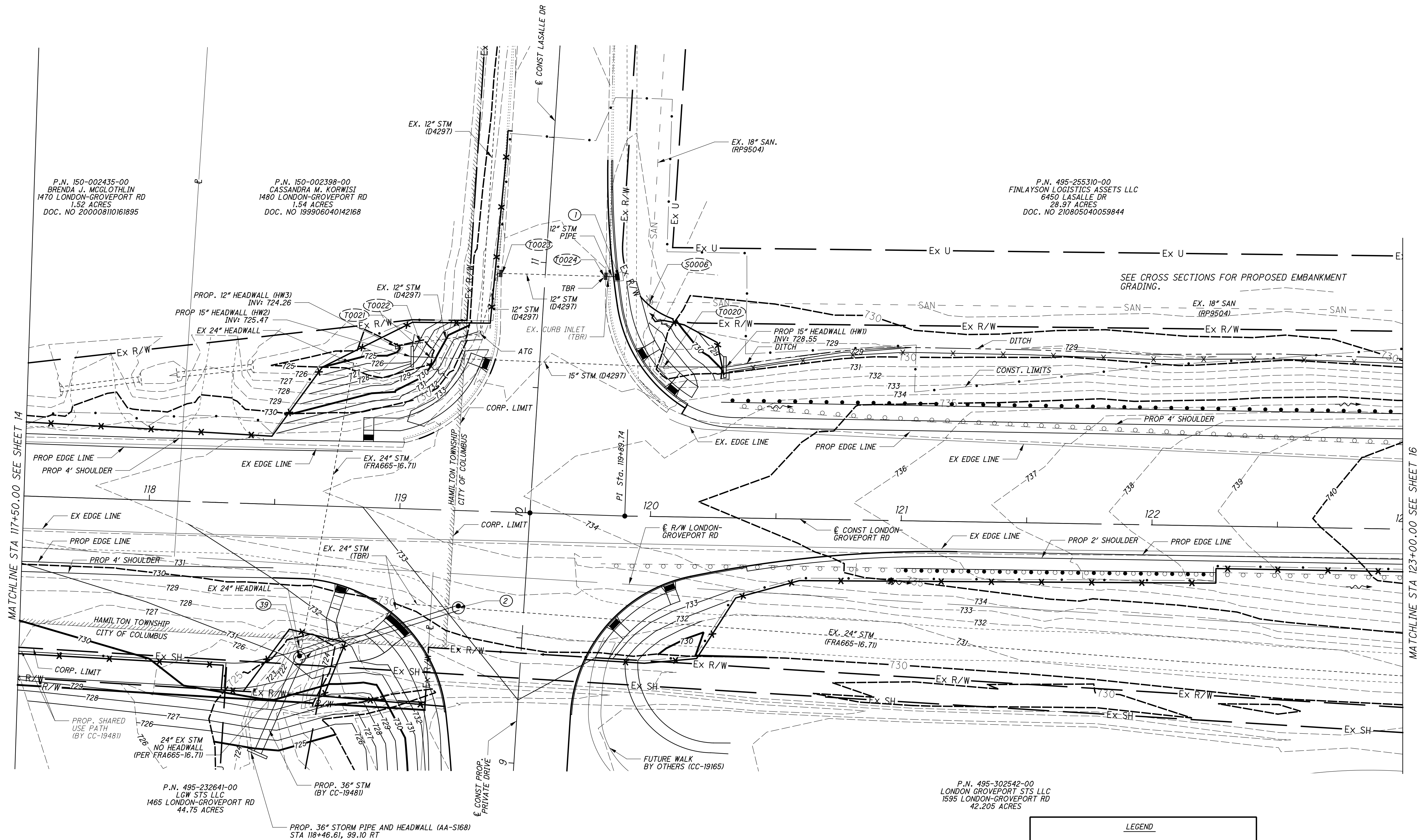
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72

IMPROVEMENTS OF LONDON-GROVEPORT ROAD FROM 863' EAST OF LOCKBOURNE ROAD TO 1003' EAST OF LOCKBOURNE ROAD

FROM 2300' SOUTH OF LONDON-GROVEPORT RD TO 2025' SOUTH OF LONDON-GROVEPORT RD

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LEGEND

- PERIMETER FILTER FABRIC FENCE
- FLOW ARROW
- INLET PROTECTION

NOTE: ANY EXISTING STORM INLETS IMPACTED BY THE NEW CONSTRUCTION ACTIVITY WILL NEED THE APPROPRIATE INLET PROTECTION FOR SEDIMENT CONTROL.

SEE CROSS SECTIONS FOR PROPOSED EMBANKMENT GRADING.

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HORIZONTAL SCALE IN FEET

CALCULATED

AMD

CHECKED

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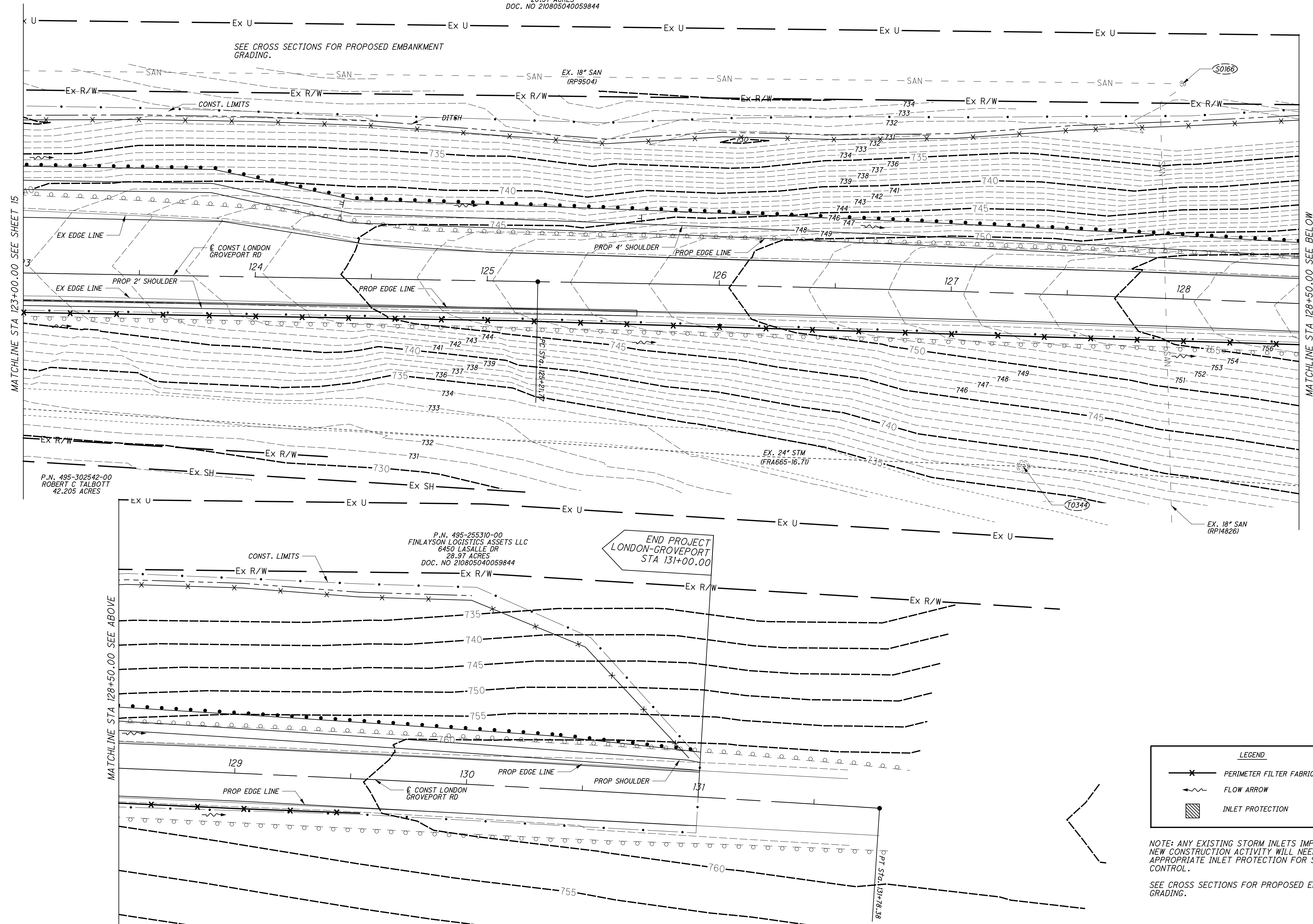
IMPROVEMENTS OF LONDON-GROVEPORT ROAD FROM 1000' WEST OF LASALLE DR TO 1000' EAST OF LASALLE DR FROM 2300' SOUTH OF LONDON-GROVEPORT RD TO 2025' SOUTH OF LONDON-GROVEPORT RD

STORM WATER POLLUTION PREVENTION PLAN

1572

3916-E

P.N. 495-255310-00
FINLAYSON LOGISTICS ASSETS LLC
6450 LASALLE DR
28.97 ACRES
DOC. NO 210805040059844



NOTE: ANY EXISTING STORM INLETS IMPACTED BY THE NEW CONSTRUCTION ACTIVITY WILL NEED THE APPROPRIATE INLET PROTECTION FOR SEDIMENT CONTROL.

SEE CROSS SECTIONS FOR PROPOSED EMBANKMENT GRADING.

3916-E

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SITE NARRATIVE

PLAN DESIGNER AMERICAN STRUCTUREPOINT, INC. 2550 CORPORATE EXCHANGE DR., STE 300 COLUMBUS, OHIO 43231 CONTACT: MICHAEL W. RAUBENOLT PHONE: (614) 376-6995 EMAIL: mraubenolt@structurepoint.com	OWNER EXXCEL PROJECT MANAGEMENT 328 CIVIC CENTER DRIVE COLUMBUS, OH 43215 CONTACT: JEFF WIATER PHONE: (614) 621-4500 EMAIL: jwiater@exxcel.com	SITE CONTACT EXXCEL PROJECT MANAGEMENT 328 CIVIC CENTER DRIVE COLUMBUS, OH 43215 CONTACT: JEFF WIATER PHONE: (614) 621-4500 EMAIL: jwiater@exxcel.com
EXISTING SITE CONDITIONS:	RURAL AREA	
PROJECT DESCRIPTION:	PAVEMENT WIDENING TO ACCOMMODATE THE ADDITION OF A 425' WESTBOUND TURN LANE AND A 800' EASTBOUND RIGHT TURN LANE ON LONDON-GROVEPORT RD ALONG WITH THE INSTALLATION OF A TRAFFIC SIGNAL AND PEDESTRIAN CROSSINGS AT THE LONDON-GROVEPORT RD - LASALLE DR INTERSECTION. ALSO, THE INSTALLATION OF A 5' SIDEWALK ALONG LOCKBOURNE RD.	
RECEIVING STREAM:	STIMMELL DITCH TO ODOT RIGHT OF WAY, EVENTUALLY DRAINING TO SCIOTO RIVER.	
DISTURBED AREA:	2.64 ACRES	
OEPA NOI #:	4GC07838*AG	
SITE BMPS:	FINAL LOCATIONS OF ALL SITE BMPS, INCLUDING DUMPSTERS, VEHICLE FUELING AREAS, CONCRETE TRUCK WASH, MATERIAL STORAGE, AND TOPSOIL STOCKPILES SHALL BE DETERMINED BY CONTRACTOR. IF FINAL LOCATION OF BMPS DIFFER FROM THE LOCATIONS SHOWN, CONTRACTOR SHALL MODIFY SWPPP AND INFORM OHIO EPA OF NEW LOCATIONS OF BMPS.	
ADJACENT AREAS:	EAST: INDUSTRIAL NORTH: RURAL RESIDENTIAL AND INDUSTRIAL WEST: RURAL RESIDENTIAL AND INDUSTRIAL SOUTH: AGRICULTURAL FIELD	
GRADING REQUIREMENTS:	DISTURBED AREAS WILL BE PROTECTED BY SILT FENCE AS SHOWN ON THE PLAN. AREAS WILL BE STABILIZED WHEN GRADED TO PREVENT EROSION ON THE SITE.	
EROSION & SEDIMENT	A COMBINATION OF MEASURES WILL BE USED TO PROVIDE EROSION & SEDIMENT CONTROL MEASURES: CONTROL, INCLUDING SILT FENCE AND SEEDING. PROVIDE INLET PROTECTION AT ALL NEW AND EXISTING DRAINAGE STRUCTURES. ANY OFF SITE BORROW OR SPOIL AREAS SHALL BE SUBJECT TO THE REQUIREMENTS SET FORTH BY THE OHIO EPA. ALL EROSION AND SEDIMENT CONTROL MEASURES FOR OFF-SITE AREAS NOT COVERED BY A SEPARATE NOI OR SWPPP SHALL BE COORDINATED WITH THE OHIO EPA. ALL TRENCH OR EXCAVATION GROUNDWATER CONTAINING SEDIMENT MUST BE EFFECTIVELY TREATED PRIOR TO DISCHARGE INTO THE STORM SEWER SYSTEM. USE ALL MEANS NECESSARY TO CONTROL DUST ON THE SITE AND PREVENT TRACKING SOIL OFF SITE. <div>CONTRACTOR MUST HAVE THE DRAINAGE AREA GOING TO EACH INLET PROTECTION BE LESS THAN 1.0 ACRE.</div>	
PERMANENT STABILIZATION:	THE SITE WILL BE STABILIZED BY THE USE OF SEEDING OR SODDING IN LAWN AREAS.	
MAINTENANCE:	ALL EROSION CONTROL DEVICES ARE TO BE INSPECTED BY THE CONSTRUCTION SUPERINTENDENT WEEKLY AND AFTER SIGNIFICANT RAINFALLS. ANY DAMAGED FACILITIES ARE TO BE REPLACED OR REPAIRED IMMEDIATELY AS MAY BE NECESSARY.	
GENERAL CONSTRUCTION	(UNLESS NOTED OTHERWISE, ALL EROSION AND SEDIMENT CONTROL MEASURES SEQUENCE: FROM THE BEGINNING OF EARTH DISTURBING ACTIVITIES TO FINAL COMPLETION OF THE PROJECT ARE THE RESPONSIBILITY OF THE CONTRACTOR) <div>1 - ESTABLISH CONSTRUCTION AREA 2 - CONSTRUCT TEMPORARY SEDIMENT CONTROLS AND PERIMETER EROSION CONTROL MEASURES, INCLUDING CONSTRUCTION ENTRANCE, AND SILT FENCE. MEASURES SHALL BE IMPLEMENTED AS THE FIRST STEP OF GRADING AND WITHIN 7 DAYS OF FIRST GRUBBING. 3 - CLEAR AND GRUB 4 - STRIP AND STOCKPILE TOPSOIL. SEED STOCKPILES. PROVIDE PERIMETER SILT FENCE AT TOE OF STOCKPILE SLOPE. 5 - PERFORM ROUGH GRADING AND EXCAVATION. STABILIZE AREAS AS INDICATED HEREIN. 6 - INSTALL TEMPORARY SEDIMENT BASINS AND TEMPORARY OUTLET STRUCTURE. 7 - INSTALL STORM SEWERS, OUTLET STRUCTURE, AND INLET FILTERS. 8 - COMPLETE ALL PAVEMENT ACTIVITIES. 9 - COMPLETE FINE GRADING OF SEEDED AREAS AND STABILIZE DISTURBED AREAS. 10 - ONCE FINAL SEED HAS BEEN ESTABLISHED, CONTRACTOR TO REMOVE TEMPORARY EROSION CONTROL MEASURES AND CLEAN ALL SEDIMENT FROM STRUCTURES AND PAVEMENT. SEDIMENT/WATER QUALITY BASIN SHALL BE CLEANED OF ALL ACCUMULATED SEDIMENT AND RESTORED TO THE ORIGINAL DESIGN CONTOURS SHOWN ON THESE PLANS. 11 - PRIOR TO FINISHING WORK, ALL AREAS OF THE SITE DISTURBED BY CONSTRUCTION ACTIVITY (INCLUDING, BUT NOT LIMITED TO MATERIAL STORAGE AREAS, TRAILER AREAS, FUELING AREAS, TRUCK WASH AREAS, EQUIPMENT PATHS, HAUL ROADS, ETC.) SHALL BE RESTORED TO THEIR ORIGINAL CONDITIONS, OR IF IN AREAS OF PROPOSED IMPROVEMENTS, TO THEIR PROPOSED CONDITIONS. ALL STONE, TRASH, AND DEBRIS SHALL BE REMOVED FROM THE SOIL. THE UPPER 12" OF SOIL SHALL BE SCARIFIED, AND AREA SHALL BE GRADED TO SUBGRADE WITH SUITABLE MATERIALS. FURNISH 6" MINIMUM OF TOPSOIL AND SEED ALL AREAS.</div>	
SCHEDULE:	THE CONTRACTOR SHALL PROVIDE A SCHEDULE OF OPERATIONS TO THE OWNER. SEDIMENTATION AND EROSION CONTROL FEATURES SHALL BE PLACED IN ACCORDANCE WITH THIS SCHEDULE.	
JURISDICTION:	ALL EROSION AND SEDIMENT CONTROL PRACTICES ARE SUBJECT TO FIELD MODIFICATIONS AT THE DISCRETION OF THE CITY OF COLUMBUS AND/OR THE OHIO EPA.	
OEPA NOI:	4GC07838*AG	

DISTURBED AREA

PRE-DEVELOPED: C = 74
POST-DEVELOPED: C = 87
PRE-DEVELOPED IMPERVIOUS AREA: 1.71 ACRES
POST-DEVELOPED IMPERVIOUS AREA: 2.25 ACRES

EROSION CONTROL NOTES:

- ALL EROSION CONTROL FACILITIES SHALL BE INSTALLED PRIOR TO ANY SITE GRADING OPERATIONS. ALL APPLICABLE GOVERNING AGENCIES MUST BE NOTIFIED UPON COMPLETION OF THE INSTALLATION OF THE REQUIRED EROSION FACILITIES AND PRIOR TO ANY GRADING OPERATION BEING COMMENCED. IF DAMAGED OR REMOVED DURING CONSTRUCTION, ALL EROSION CONTROL FACILITIES SHALL BE RESTORED AND IN PLACE AT THE END OF EACH WORK DAY.
- ANY EROSION CONTROL FACILITIES DEEMED NECESSARY BY THE GOVERNING AGENCIES; BEFORE, DURING OR AFTER THE GRADING ACTIVITIES, SHALL BE INSTALLED AT THEIR REQUEST.
- FLWS FROM DIVERSION CHANNELS OR PIPES (TEMPORARY OR PERMANENT) SHALL BE ROUTED TO SEDIMENTATION BASINS OR APPROPRIATE ENERGY DISSIPATERS TO PREVENT TRANSPORT OF SEDIMENT TO OUTFLOW TO LATERAL CONVEYORS AND TO PREVENT EROSION AND SEDIMENTATION WHEN RUNOFF FLOWS INTO THESE CONVEYORS.
- SITE ACCESS ROADS SHALL BE GRADED OR OTHERWISE PROTECTED WITH SILT FENCES, DIVERSION CHANNELS, OR DIKES AND PIPES TO PREVENT SEDIMENT FROM EXITING THE SITE VIA THE ACCESS ROADS. SITE-ACCESS ROADS/DRIVEWAYS SHALL BE SURFACED WITH CRUSHED ROCK WHERE THEY ADJOIN EXISTING PAVED ROADWAYS.
- SOILS TRACKED FROM THE SITE BY MOTOR VEHICLES OR EQUIPMENT SHALL BE CLEANED DAILY FROM PAVED ROADWAY SURFACES, OR MORE FREQUENTLY IF REQUESTED BY GOVERNING AGENCIES, THROUGHOUT THE DURATION OF CONSTRUCTION.
- DUST CONTROL MEASURES SHALL BE PERFORMED PERIODICALLY WHEN CONDITIONS REQUIRE AND/OR AS DIRECTED BY THE GOVERNING AGENCIES.
- ALL EROSION CONTROL MEASURES SHALL BE USED AND MAINTAINED FOR THE DURATION OF SITE CONSTRUCTION. IF CONSTRUCTION OPERATIONS OR NATURAL EVENTS DAMAGE OR INTERFERE WITH THESE EROSION CONTROL MEASURES, THEY SHALL BE RESTORED TO SERVE THEIR INTENDED FUNCTION AT THE END OF EACH DAY OR AS SOON AS FIELD CONDITIONS ALLOW ACCESS.
- ALL AREAS DISTURBED DURING CONSTRUCTION SHALL BE RESTORED AS SOON AS POSSIBLE. ANY AREAS WHICH HAVE BEEN FINISHED GRADED SHALL BE SODDED. AREAS THAT HAVE BEEN DISTURBED AND FOR WHICH GRADING OR SITE BUILDING CONSTRUCTION OPERATIONS ARE NOT ACTIVELY UNDERWAY SHALL BE TEMPORARILY SEEDED AND MULCHED AS REQUIRED BY GOVERNING AGENCIES.
- RUNOFF SHALL BE PREVENTED FROM ENTERING ALL STORM SEWER CATCH BASINS PROVIDING THEY ARE NOT NEEDED DURING CONSTRUCTION. WHERE STORM SEWER CATCH BASINS ARE NECESSARY FOR SITE DRAINAGE DURING CONSTRUCTION, A SILT FENCE OR SEDIMENT PROTECTION DEVICES SHALL BE INSTALLED AND MAINTAINED AROUND ALL CATCH BASINS UNTIL THE TRIBUTARY AREA TO THE CATCH BASIN IS RESTORED.
- EROSION CONTROL FACILITIES SHALL BE INSTALLED AND MAINTAINED AROUND THE PERIMETER OF ALL LAKES, PONDS, AND WETLANDS, IF ANY WITHIN OR ADJACENT TO THE AREA TO BE GRADED UNTIL THE AREA TRIBUTARY TO THE LAKE, POND, OR WETLAND IS RESTORED.
- TO MINIMIZE EROSION, ALL 3:1 SLOPES OR GREATER SHALL BE COVERED WITH A TEMPORARY EROSION CONTROL BLANKET OR STAKED SOD.
- ACCUMULATION OF ALL SEDIMENT OCCURRING IN STORM SEWERS, DITCHES, LAKES, PONDS, WETLANDS SHALL BE REMOVED PRIOR TO, DURING AND AFTER COMPLETION OF GRADING ACTIVITIES, AT NO ADDITIONAL COST TO OWNER.
- EROSION CONTROL ITEMS AND DEVICES SHALL BE REMOVED ONLY AFTER THE AREA HAS RECEIVED FINAL STABILIZATION.

SEDIMENT AND EROSION CONTROL NOTES:

MAINTENANCE & INSPECTION PROCEDURES
ALL CONTROL MEASURES SHALL BE INSPECTED AT LEAST ONCE EACH WEEK AND WITHIN 24 HOURS FOLLOWING ANY STORM EVENT OF 0.5 INCHES OR GREATER.

IT IS THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN THE SEDIMENTATION AND EROSION CONTROL FEATURES ON THIS PROJECT. ANY SEDIMENT OR DEBRIS WHICH REDUCES THE EFFICIENCY OF A CONTROL FEATURE SHALL BE REMOVED IMMEDIATELY. SHOULD A STRUCTURE OR FEATURE BECOME DAMAGED, THE CONTRACTOR SHALL REPAIR OR REPLACE AT NO ADDITIONAL COST TO THE OWNER AND IT SHALL BE INITIATED WITHIN 24 HOURS OF REPORT.

TEMPORARY SEEDING AND PERMANENT SEEDING AND PLANTING WILL BE INSPECTED FOR BARE SPOTS, WASHOUTS, AND HEALTHY GROWTH.

A MAINTENANCE INSPECTION REPORT SHALL BE MADE AFTER EACH INSPECTION, AND A WRITTEN LOG MUST BE KEPT. THIS LOG SHALL INDICATE THE DATE OF THE INSPECTION, NAME OF THE INSPECTOR, WEATHER CONDITIONS, OBSERVATIONS, ANY CORRECTIVE ACTIONS TAKEN, AND BE SIGNED IN ACCORDANCE WITH THE CONDITIONS OF THE NPDES PERMIT. ANY CONTROL MEASURE MUST BE REPAIRED/REPLACED WITHIN THREE DAYS OF INSPECTION.

PERSONNEL SELECTED FOR INSPECTION AND MAINTENANCE RESPONSIBILITIES SHALL BE TRAINED IN ALL INSPECTION AND MAINTENANCE PRACTICES NECESSARY FOR KEEPING THE EROSION AND SEDIMENT CONTROLS USED ONSITE IN GOOD WORKING ORDER. A WRITTEN DOCUMENT CONTAINING THE SIGNATURES OF ALL CONTRACTORS AND SUBCONTRACTORS INVOLVED IN THE IMPLEMENTATION OF ALL EROSION AND SEDIMENT CONTROL MEASURES MUST BE MAINTAINED AS PROOF ACKNOWLEDGING THAT THEY REVIEWED AND UNDERSTAND THE CONDITIONS AND RESPONSIBILITIES OF THE PLAN. THE DOCUMENT SHALL BE CREATED BY THE CONTRACTOR SIGNED PRIOR TO THE START OF CONSTRUCTION.

DISPOSAL OF SOLID/SANITARY/TOXIC WASTE:
SOLID, SANITARY, AND TOXIC WASTE MUST BE DISPOSED OF IN A PROPER MANNER IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL REGULATIONS.

IT IS PROHIBITED TO BURN, BURY, OR POUR OUT ONTO THE GROUND OR INTO A STORM SEWER WATER CONVEYANCE ANY SOLVENTS, PAINTS, STAINS, GASOLINE, DIESEL FUEL, USED MOTOR OIL, HYDRAULIC FLUID, ANTIFREEZE, CEMENT CURING COMPOUNDS, AND OTHER SUCH SOLID AND HAZARDOUS WASTES.

ANY RINSE WATERS OF SUCH MATERIAL ARE ALSO PROHIBITED FROM BEING PLACED WHERE THEY MAY ENTER DRAINAGEWAYS.

WASH OUT OF CEMENT TRUCKS SHOULD OCCUR IN A DIKED, DESIGNATED AREA, AWAY FROM ANY CONVEYANCE CHANNEL.

COORDINATE WASH OUT AREA WITH CONSTRUCTION MANAGER.

CONTRACTORS RESPONSIBILITIES:
THIS PLAN MUST BE POSTED ON-SITE. A COPY OF THE SWPPP PLAN AND THE APPROVED EPA STORMWATER PERMIT (WITH THE SITE-SPECIFIC NOI NUMBER) SHALL BE KEPT ON-SITE AT ALL TIMES.

DETAILS HAVE BEEN PROVIDED ON THE PLANS IN AN EFFORT TO HELP THE CONTRACTOR PROVIDE EROSION AND SEDIMENTATION CONTROL. THE DETAILS SHOWN ON THE PLAN SHALL BE CONSIDERED A MINIMUM. ADDITIONAL OR ALTERNATE DETAILS MAY BE FOUND IN THE ODMR MANUAL "RAINWATER AND LAND DEVELOPMENT". THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR PROVIDING NECESSARY AND ADEQUATE MEASURES FOR PROPER CONTROL OF EROSION AND SEDIMENT RUNOFF FROM THE SITE ALONG WITH PROPER MAINTENANCE AND INSPECTION IN COMPLIANCE WITH THE NPDES GENERAL PERMIT FOR STORM DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITIES.

THE CONTRACTOR SHALL PROVIDE A SCHEDULE OF OPERATIONS TO THE OWNER. THE SCHEDULE SHOULD INCLUDE A SEQUENCE OF THE PLACEMENT OF THE SEDIMENTATION AND EROSION CONTROL MEASURES THAT PROVIDES FOR CONTINUAL PROTECTION OF THE SITE THROUGHOUT EARTH MOVING ACTIVITIES.

PRIOR TO CONSTRUCTION OPERATIONS IN A PARTICULAR AREA, ALL SEDIMENTATION AND EROSION CONTROL FEATURES SHALL BE IN PLACE. FIELD ADJUSTMENTS WITH RESPECT TO LOCATIONS AND DIMENSIONS MAY BE MADE BY THE ENGINEER AND/OR THE OHIO EPA.

THE CONTRACTOR SHALL PLACE INLET PROTECTION FOR THE SEDIMENTATION CONTROL IMMEDIATELY AFTER CONSTRUCTION OF THE CATCH BASINS OR INLETS WHICH ARE NOT TRIBUTARY TO A SEDIMENT BASIN OR DAM.

IT MAY BECOME NECESSARY TO REMOVE PORTIONS OF SEDIMENTATION CONTROLS DURING CONSTRUCTION TO FACILITATE THE GRADING OPERATIONS IN CERTAIN AREAS. HOWEVER, THE CONTROLS SHALL BE REPLACED UPON GRADING OR DURING ANY INCLEMENT WEATHER.

THE CONTRACTOR SHALL BE RESPONSIBLE TO ENSURE THAT OFFSITE TRACKING OF SEDIMENTS BY VEHICLES AND EQUIPMENT IS MINIMIZED. ALL SUCH OFFSITE SEDIMENT SHALL BE CLEANED UP DAILY.

THE CONTRACTOR SHALL BE RESPONSIBLE TO ENSURE THAT NO SOLID OR LIQUID WASTE IS DISCHARGED INTO STORM WATER RUNOFF. UNTREATED SEDIMENT-LADEN RUNOFF SHALL NOT FLOW OFFSITE WITHOUT BEING DIRECTED THROUGH A CONTROL PRACTICE.

CONCRETE TRUCKS WILL NOT BE ALLOWED TO WASH OUT OR DISCHARGE SURPLUS CONCRETE INTO OR ALONG SIDE RIVERS, STREAMS, CREEKS, NATURAL OR MAN-MADE CHANNELS OR SWALES LEADING THERETO. CONCRETE WASH WATER AND SURPLUS CONCRETE SHALL BE CONFINED TO APPROVED AREAS. AFTER SOLIDIFYING THESE WASTED MATERIALS SHALL BE REMOVED FROM THE SITE.

POST FLOOD EVENT SITE MAINTENANCE:

FOLLOWING A FLOOD EVENT, INSPECT ALL MECHANICAL EQUIPMENT THAT ARE LOCATED ON THE SITE FOR ANY DAMAGES. WALLS AND WALL PENETRATIONS SHALL ALSO BE CHECKED FOR CRACKS AND LEAKS AND REPAIRED AS NECESSARY. ALL DEBRIS THAT MAY HAVE ACCUMULATED ALONG THE SITE SHALL BE GATHERED AND DISPOSED OF ACCORDING TO CITY STANDARDS. CHECK AND ENSURE THAT ALL DRAINAGE STRUCTURES ARE IN STANDARD OPERATION AND REPAIR ANY DAMAGES OR CLOGS THAT MAY HAVE OCCURRED DURING FLOODING.

STABILIZATION PROCEDURES

CONTRACTOR SHALL BE RESPONSIBLE TO KEEP A RECORD OF DATES WHEN MAJOR GRADING ACTIVITIES OCCUR, WHEN EARTH DISTURBANCE HAS TEMPORARILY OR PERMANENTLY CEASED ON A PORTION OF THE SITE, AND WHEN STABILIZATION MEASURES HAVE BEEN INITIATED. THE LIMITS OF SEEDING AND MULCHING ARE AS SHOWN WITHIN THE PLAN AS INDICATED BY THE LIMITS OF DISTURBANCE. ALL AREAS NOT DESIGNATED TO BE SEEDED SHALL REMAIN UNDER NATURAL GROUND COVER. THOSE AREAS DISTURBED OUTSIDE THE SEEDING LIMITS SHALL BE SEEDED AND MULCHED AT THE CONTRACTOR'S EXPENSE.

TEMPORARY STABILIZATION
TOPSOIL STOCKPILES AND DISTURBED PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITY CEASES FOR AT LEAST 21 DAYS WILL BE STABILIZED WITH TEMPORARY SEED AND MULCH NO LATER THAN 7 DAYS FROM THE LAST CONSTRUCTION ACTIVITY IN THAT AREA. DISTURBED AREAS WITHIN 50 FEET OF A STREAM, FIRST ORDER OR LARGER, SHALL BE STABILIZED WITHIN 2 DAYS OF INACTIVITY. TEMPORARY STABILIZATION MUST BE APPLIED TO ANY AREA OF THE SITE WHICH WILL REMAIN IDLE OVER THE WINTER. THE TEMPORARY SEED SHALL BE RYE (GRASS) APPLIED AT A RATE OF 25 LBS PER 1000 SY. PRIOR TO SEEDING, 900 LBS OF GROUND AGRICULTURAL LIMESTONE AND 200 LBS OF 10-20-20 FERTILIZER SHALL BE APPLIED TO EVERY 1000 SY STABILIZED. IMMEDIATELY AFTER ANY GIVEN AREA IS SEEDED, STRAW OR HAY SHALL BE EVENLY PLACED OVER ALL SEEDED AREAS. TWO TONS PER ACRE FOR STRAW, OR 3 TONS PER ACRE FOR HAY SHALL BE PLACED WHEN SEEDING IS PREFORMED BETWEEN THE DATES OF MARCH 15 AND OCTOBER 15. THREE TONS PER ACRE STRAW, OR 4.5 TONS PER ACRE FOR HAY, SHALL BE PLACED WHEN SEEDING IS PREFORMED BETWEEN THE DATES OF OCTOBER 15 AND MARCH 15 OF THE SUCCEEDING YEAR. IF DORMANT SEEDING IS BEING USED FOR STABILIZATION, SEED SHALL BE PLANTED AFTER NOVEMBER 20. AREAS TO BE PAVED SHALL BE TEMPORARILY STABILIZED BY APPLYING STONE BASE UNTIL BITUMINOUS PAVEMENT CAN BE APPLIED.

IN ADDITION TO TEMPORARY SEEDING, THE CONTRACTOR SHALL PLACE A FILTER FABRIC BARRIER AROUND THE BASE OF ALL SOIL STOCKPILES.

PERMANENT STABILIZATION
DISTURBED PORTIONS OF THE SITE WHEN CONSTRUCTION HAS COMPLETED, OR PORTIONS THAT WILL REMAIN DORMANT FOR LONGER THAN ONE YEAR, SHALL BE STABILIZED WITH PERMANENT SEED NO LATER THAN 7 DAYS AFTER FINAL GRADE HAS BEEN ESTABLISHED. THE PERMANENT SEED MIX SHALL CONSIST OF 260 LBS/ACRE OF TURF TYPE TALL FESCUE. PRIOR TO SEEDING, APPLY COMMERCIAL FERTILIZER AT THE RATE OF 1 LB ACTUAL NITROGEN PER 1000 SF. FERTILIZER TO HAVE 20-22-14 ANALYSIS. AFTER SEEDING, EACH AREA SHALL BE MULCHED USING TURFIBER (OR EQUIVALENT) AT A RATE OF 2000 LBS PER ACRE WITH 50 LBS OF TURFIBER ADDED PER 100 GALLONS OF MACHINE CAPACITY. KEEP HYDROMULCH FROM NON-TARGET AREAS INCLUDING PAVEMENT, PLANT MATERIALS, CURBING, AND STRUCTURES. IF THESE SURFACES ARE HIT DURING HYDROMULCHING OPERATIONS, WASH THE SURFACE IMMEDIATELY.

IF SEASONAL CONDITIONS PROHIBIT THE ESTABLISHMENT OF VEGETATIVE COVER, OTHER METHODS OF STABILIZATION, SUCH AS MULCHING WITH A TACKIFIER OR MATTING, MUST BE EMPLOYED AND MAINTAINED UNTIL A MORE PERMANENT METHOD CAN BE IMPLEMENTED.

NOTES:

ALL EROSION AND SEDIMENTATION CONTROL PRACTICES ARE SUBJECT TO FIELD MODIFICATIONS AT DISCRETION OF THE CITY OF COLUMBUS AND/OR THE OHIO EPA.

STABILIZATION IS TO BE DONE WITH HYDROSEED, THE CITY DOES NOT PERMIT THE USE OF STRAW MULCH.

THIS PLAN MUST BE POSTED ON-SITE. A COPY OF THE SWPPP PLAN AND THE APPROVED EPA STORMWATER PERMIT (WITH THE SITE-SPECIFIC NOI NUMBER) SHALL BE KEPT ON-SITE AT ALL TIMES.

THE USE OF PORTABLE CONCRETE WASHOUT UNITS IS APPROVED (AND ENCOURAGE) FOR ALL CONSTRUCTION AREAS IN THE CITY OF COLUMBUS.

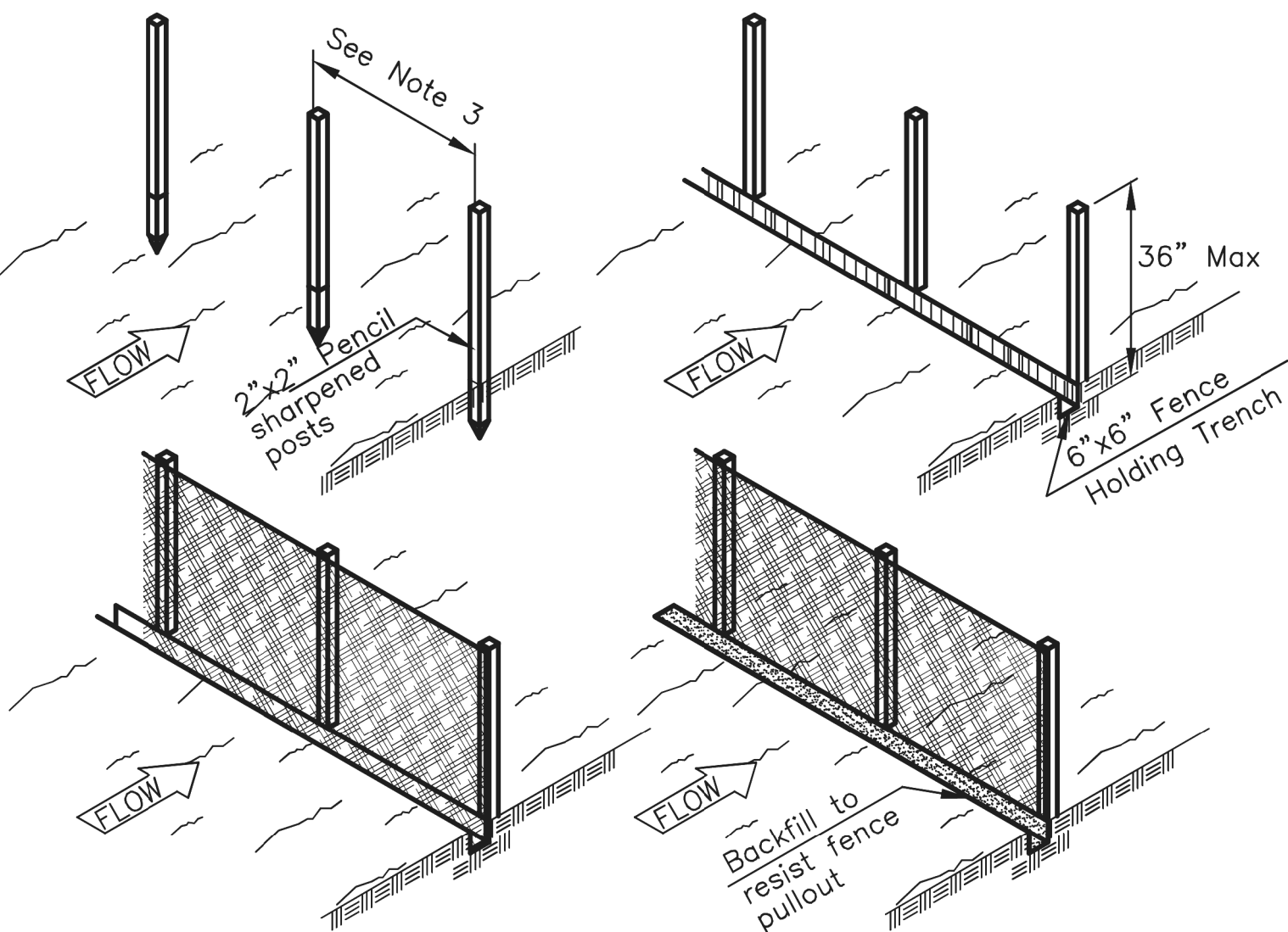
STREET CLEANING (ON AS-NEEDED BASIS) IS REQUIRED THROUGH THE DURATION OF THIS CONSTRUCTION PROJECT. THIS INCLUDES SWEEPING, POWER CLEANING AND (IF NECESSARY) MANUAL REMOVAL OF DIRT OR MUD IN THE STREET GUTTERS.

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FILTER FABRIC FENCE

THIS SEDIMENT BARRIER UTILIZES STANDARD STRENGTH OR EXTRA STRENGTH SYNTHETIC FILTER FABRICS. IT IS DESIGNED FOR SITUATIONS IN WHICH ONLY SHEET OR OVERLAND FLOWS ARE EXPECTED.

1. THE HEIGHT OF A SEDIMENT FENCE SHALL NOT EXCEED 36 INCHES (HIGHER FENCES MAY IMPOUND VOLUMES OF WATER SUFFICIENT TO CAUSE FAILURE OF THE STRUCTURE).
2. THE FILTER FABRIC SHALL BE PURCHASED IN A CONTINUOUS ROLL CUT TO THE LENGTH OF THE BARRIER TO AVOID THE USE OF JOINTS. WHEN JOINTS ARE NECESSARY, FILTER CLOTH SHALL BE SPLICED TOGETHER ONLY AT A SUPPORT POST, WITH A MINIMUM 6 INCH OVERLAP, AND SECURELY SEALED.
3. POSTS SHALL BE SPACED A MAXIMUM OF 10 FEET APART AT THE BARRIER LOCATION AND DRIVEN SECURELY INTO THE GROUND (MINIMUM OF 12 INCHES). WOOD POSTS WILL BE A MINIMUM OF 32 IN LONG. WHEN EXTRA STRENGTH FABRIC IS USED WITHOUT THE WIRE SUPPORT FENCE, POST SPACING SHALL NOT EXCEED 6 FEET.
4. A TRENCH SHALL BE EXCAVATED APPROXIMATELY 6 INCHES WIDE AND 6 INCHES DEEP ALONG THE LINE OF POSTS AND UP SLOPE FROM THE BARRIER.
5. WHEN STANDARD STRENGTH FILTER FABRIC IS USED, A WIRE MESH SUPPORT FENCE SHALL BE FASTENED SECURELY TO THE UP SLOPE SIDE OF THE POSTS USING HEAVY DUTY WIRE STAPLES AT LEAST 1 INCH LONG, TIE WIRES, OR HOG RINGS. THE WIRE SHALL EXTEND INTO THE TRENCH A MINIMUM OF 2 INCHES AND SHALL NOT EXTEND MORE THAN 36 INCHES ABOVE THE ORIGINAL GROUND SURFACE.
6. THE STANDARD STRENGTH FILTER FABRIC SHALL BE STAPLED OR WIRED TO THE FENCE, AND 8 INCHES OF THE FABRIC SHALL BE EXTENDED INTO THE TRENCH. THE FABRIC SHALL NOT EXTEND MORE THAN 36 INCHES ABOVE THE ORIGINAL GROUND SURFACE. FILTER FABRIC SHALL NOT BE STAPLED TO EXISTING TREES.
7. WHEN EXTRA STRENGTH FILTER FABRIC AND CLOSER POST SPACING ARE USED, THE WIRE MESH SUPPORT FENCE MAY BE ELIMINATED. IN SUCH A CASE, THE FILTER FABRIC IS STAPLED OR WIRED DIRECTLY TO THE POSTS WITH ALL OTHER PROVISIONS OF ITEM NO. 6 APPLYING.
8. THE TRENCH SHALL BE BACKFILLED AND SOIL COMPACTED OVER THE FILTER FABRIC.
9. SILT FENCES SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFUL PURPOSE, BUT NOT BEFORE THE UP SLOPE AREA HAS BEEN PERMANENTLY STABILIZED.
10. TO PREVENT WATER PONDED BY THE SILT FENCE FROM FLOWING AROUND THE ENDS, EACH END SHALL BE CONSTRUCTED UPSLOPE SO THAT THE ENDS ARE AT A HIGHER ELEVATION.



PERIMETER FILTER FABRIC FENCE DETAIL

SEDIMENT FENCES AND/OR COMPOST FILTER SOCKS SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REQUIRED REPAIRS SHALL BE MADE IMMEDIATELY.

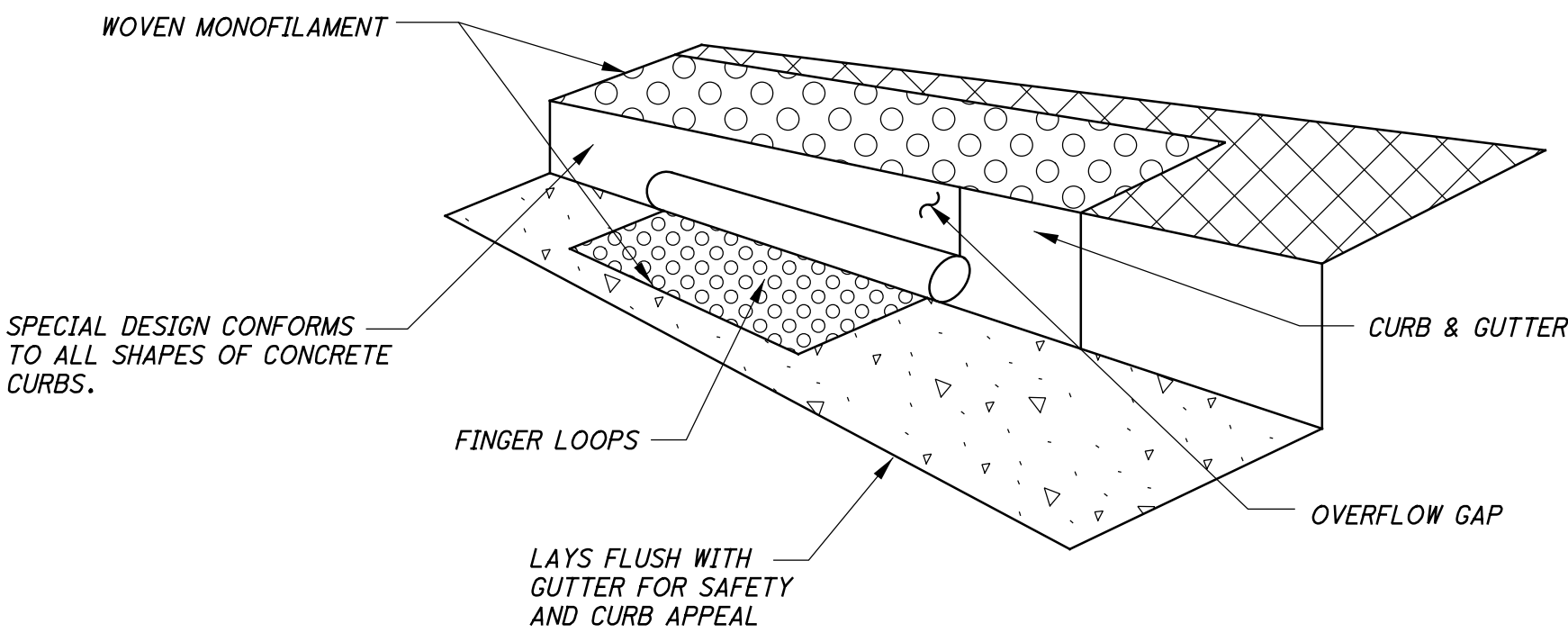
SHOULD THE FABRIC ON A SILT FENCE OR FILTER BARRIER DECOMPOSE OR BECOME INEFFECTIVE PRIOR TO THE END OF THE EXPECTED USABLE LIFE AND THE BARRIER IS STILL NECESSARY, THE FABRIC SHALL BE REPLACED PROMPTLY.

SEDIMENT DEPOSITS SHOULD BE REMOVED AFTER EACH STORM EVENT. THEY MUST BE REMOVED WHEN DEPOSITS REACH APPROXIMATELY ONE-HALF THE HEIGHT OF THE BARRIER.

ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE SILT FENCE OR FILTER BARRIER IS NO LONGER REQUIRED SHALL BE DRESSED TO CONFORM WITH THE EXISTING GRADE, PREPARED, AND SEEDED.

THE USE OF STRAW WATTLES HAS PROVEN TO BE A VERSATILE AND EFFECTIVE ESC BMP, ESPECIALLY IN RESIDENTIAL SETTINGS. STRAW WATTLES MAY BE SUBSTITUTED FOR SILT FENCE. STRAW WATTLES OR COMPOST ROLLS HAVE TO BE A MINIMUM OF 12 INCHES IN DIAMETER NOW (OEPA).

THE USE OF COMPOST FILTER SOCKS AND COMPOST BLANKETS ARE GAINING WIDER ACCEPTANCE NATIONWIDE. THEY ARE NOW APPROVED FOR USE ON ALL COLUMBUS SWP3 PLANS AND CONSTRUCTION SITES.

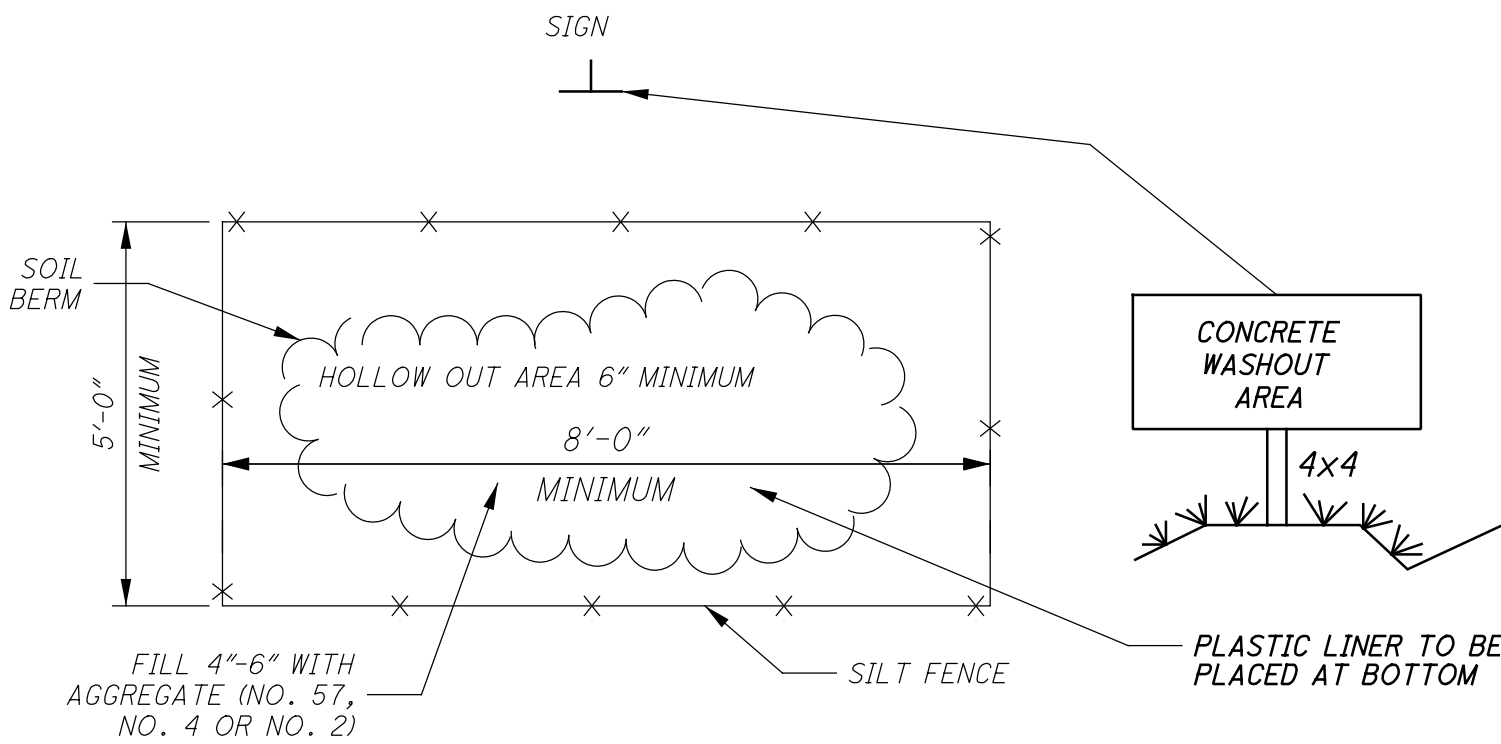


TO INSPECT CATCH BASIN: REMOVE UNIT WITH GRATE INSIDE, INSPECT CATCH BASIN AND REPLACE UNIT NO NEED TO REINSTALL

MAINTENANCE: REMOVE DRIED SEDIMENT FROM SURFACE OF UNIT AS NEEDED WITH STIFF BROOM OR SQUARE POINT SHOVEL. REMOVE FINE MATERIAL FROM INSIDE ENVELOPE AS NEEDED.

CURB INLET PROTECTION

TO BE USED ON STRUCTURES: T0023, T0024



CONCRETE WASHOUT AREA DETAIL

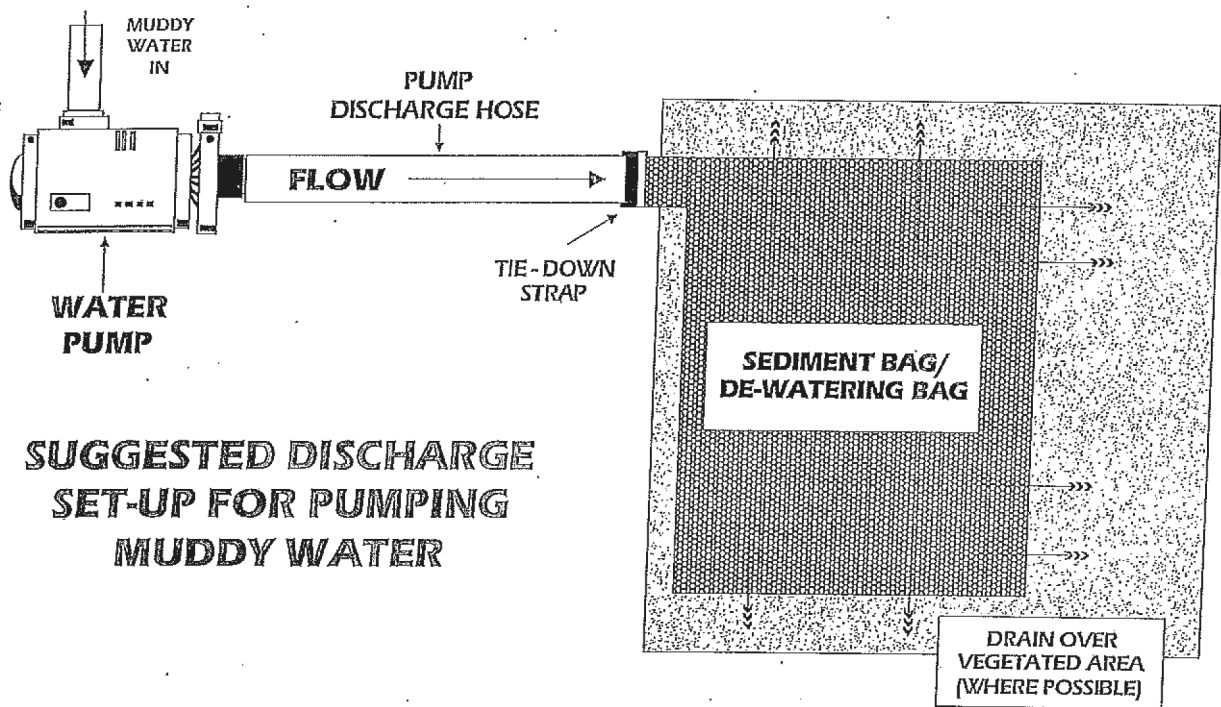
THE USE OF PORTABLE CONCRETE WASHOUT UNITS IS APPROVED (AND ENCOURAGED) FOR ALL CONSTRUCTION AREAS IN THE CITY OF COLUMBUS

NOTICE:

THE PUMPING OR DIRECT DISCHARGE OF SEDIMENT-LADEN (MUDDY) WATER TO THE CITY'S SEWERS SYSTEM OR A RECEIVING STREAM IS A VIOLAION OF OHIO EPA AND THE CITY OF COLUMBUS REGULATIONS.

ALL INLETS RECEIVING FLOW FROM RUNOFF, PUMPING ACTIVITIES, OR OTHER DIRECT DISCHARGES SHALL BE FITTING WITH AN INLET PROTECTION DEVICE THAT IS PROPERLY SIZED AND SECURED TO REDUCE THE DISCHARGE OF SEDIMENT INTO THE STORM SEWER SYSTEM AND RECEIVING STREAM. INLET PROTECTION IS REQUIRED ON ALL INLETS RECEIVING DISCHARGE REGARDLESS OF WHETHER OR NOT THE INLET IS TRIBUTARY TO ANY DOWNSTREAM EROSION AND SEDIMENT CONTROLS.

DISCHARGE HOSES USED DURING PUMPING ACTIVITIES SHALL BE FITTED WITH SEDIMENT BAGS THAT ARE PROPERLY SIZED PER MANUFACTURER'S RECOMMENDATIONS REGARDLESS OF WHAT OTHER SEDIMENT CONTROLS ARE IN PLACE FURTHER DOWNSTREAM. SEDIMENT BAGS MUST BE PROPERLY SECURED TO THE DISCHARGE HOSE AND PLACED OVER VEGETATED AREAS, WHERE FEASIBLE, DURING DISCHARGE. SEE DETAIL BELOW OF TYPICAL SEDIMENT BAG INSTALLATION.



SUGGESTED DISCHARGE SET-UP FOR PUMPING MUDDY WATER

CALCULATED
AMD
CHECKED
VDK

STORM WATER POLLUTION PREVENTION PLAN

IMPROVEMENTS OF LONDON-GROVEPORT ROAD FROM 905' WEST OF LITTLE DR TO 1000' EAST OF LITTLE DR TO LOCKBOURNE ROAD FROM 2300' SOUTH OF LONDON-GROVEPORT RD TO 2025' SOUTH OF LONDON-GROVEPORT RD

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GENERAL SUMMARY															ITEM	TOTAL	UNIT	DESCRIPTION
SHEET 14	SHEET 15	SHEET 16	SHEET 27	SHEET 28	SHEET 29	SHEET 30	SHEET 31	SHEET 32	SHEET 33	SHEET 35	SHEET 36	SHEET 53	SHEET 62	SHEET 64				
																		ROADWAY
															201	1	LS	CLEARING AND GRUBBING
			935												202	935	FT	GUARDRAIL REMOVED
			111												202	111	FT	COMBINATION CURB AND GUTTER REMOVED
			145												202	145	SF	WALK REMOVED
			1												202	1	EA	STORM HEADWALL REMOVAL
				1											202	1	EA	STORM CATCH BASIN REMOVED
			1124												202	1124	SY	AGGREGATE DRIVE REMOVED
			643												202	643	SY	PAVEMENT REMOVED
			89												202	89	FT	PIPE REMOVED
					2										202	2	EA	MAILBOX REMOVED & RESET
											1820				203	1820	CY	EXCAVATION
											6681				203	6681	CY	EMBANKMENT
															204	2	HOURL	PROOF ROLLING
				341	1510	1703	764	50	5						204	4373	SY	SUBGRADE COMPACTION
						300	550	50							606	900	FT	GUARDRAIL, TYPE MGS
						2									606	2	EA	TYPE E, ANCHOR ASSEMBLY
						878									608	878	SF	8" CONCRETE WALK
						219						2380	1680		608	4279	SF	4" CONCRETE WALK
						64									608	64	SF	DETECTABLE WARNING, TYPE A
						8									608	8	EA	CURB RAMP
						77			43						609	120	FT	COMBINATION CURB AND GUTTER, SPECIAL 8"
						236									609	236	FT	CURB, STRAIGHT 18"
																		EROSION CONTROL
1431	1129	1475													207	2604	FT	PERIMETER FILTER FABRIC FENCE
											652				659	652	SY	SEEDING AND MULCHING, CLASS 1
											3069				659	3069	SY	SEEDING AND MULCHING, CLASS 3B
															659	413	CY	TOPSOIL, 4"
															659	0.50	TON	COMMERCIAL FERTILIZER
															659	0.77	ACRE	LIME
															659	20	M GAL	WATER
															659	8	MSF	MOWING
															659	187	SY	REPAIR SEEDING AND MULCHING
															659	187	SY	INTER-SEEDING
															659	0.02	TON	COMMERCIAL FERTILIZER
															659	0.50	M GAL	WATER
																		DRAINAGE
						1									604	1	EA	DOUBLE CURB INLET, AA-125B (AA-S128 HEAVY DUTY FRAME/GRATE)
						1				2					604	3	EA	HEADWALL (PRECAST AA-S165)
						3									604	3	EA	HEADWALL (PRECAST AA-S168)
						1									604	1	EA	MANHOLE ADJUSTED TO GRADE
						2									604	2	EA	MANHOLE, TYPE C
				166	515	388	553	126							605	1748	FT	4" PIPE UNDERDRAIN
					33										605	33	FT	8" AGGREGATE DRAIN
												2			607	2	EA	CONCRETE COLLAR - SPECIAL ITEM
						16				53					901	69	FT	12" STORM PIPE W/ TYPE 1 BEDDING
						40									901	40	FT	15" STORM PIPE W/ TYPE 1 BEDDING
						93									901	93	FT	24" STORM PIPE W/ TYPE 1 BEDDING
						41									901	41	FT	36" STORM PIPE W/ TYPE 1 BEDDING

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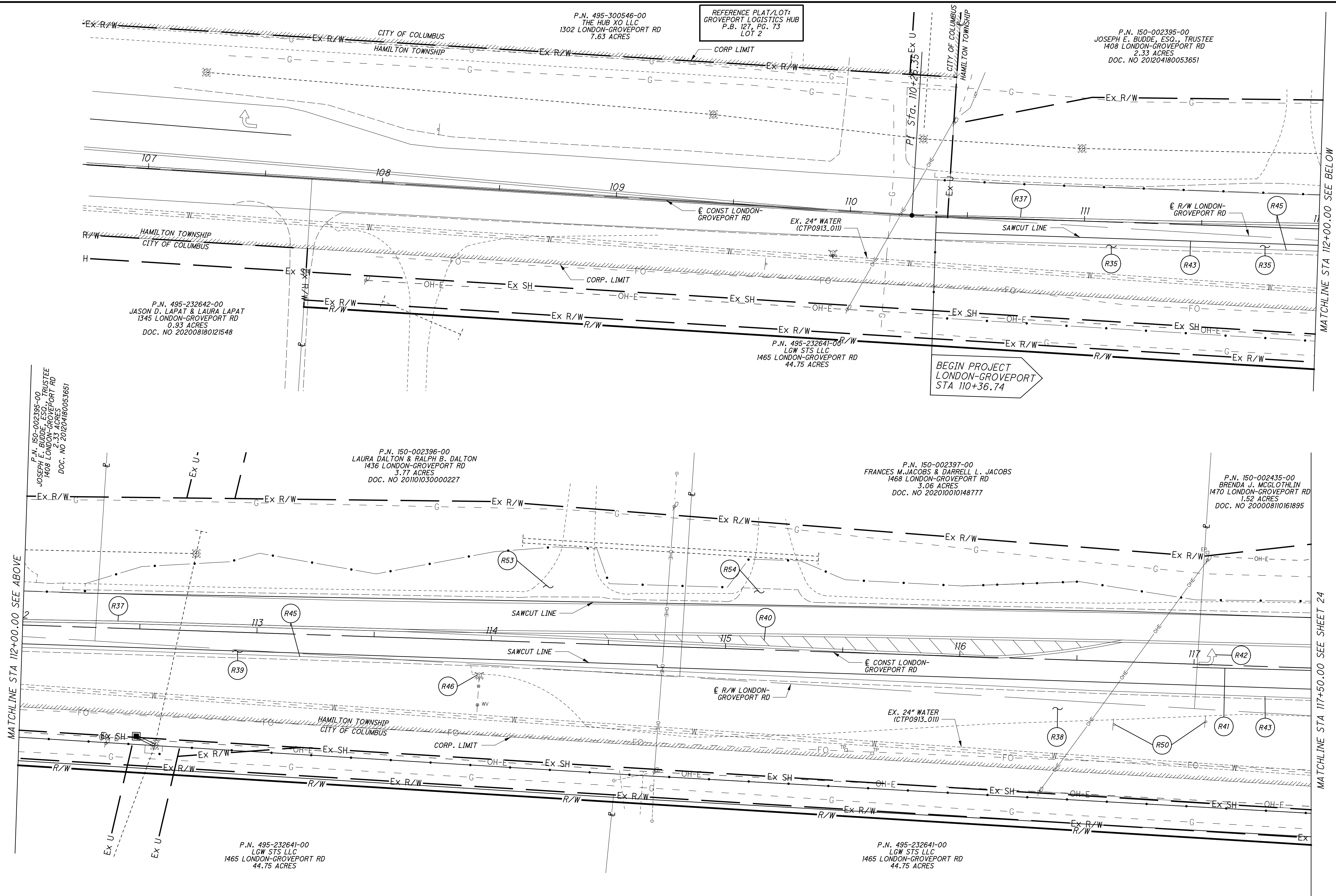
GENERAL SUMMARY															ITEM	TOTAL	UNIT	DESCRIPTION
SHEET	SHEET	SHEET	SHEET	SHEET	SHEET	SHEET	SHEET	SHEET	SHEET	SHEET	SHEET	SHEET	SHEET	SHEET				
6	27	28	29	30	31	32	33	35	53	60	61	62	63	64				
				2078	1680	384	222								254	4364	SY	PAVEMENT PLANING, ASPHALT CONCRETE (1.5")
		394	1463	510											254	2367	SY	PAVEMENT PLANING, ASPHALT CONCRETE (2")
				283	184	11	2	31							301	511	CY	9" ASPHALT CONCRETE BASE
								16							301	16	CY	4.5" ASPHALT CONCRETE BASE
		83	364	115											302	562	CY	9" ASPHALT CONCRETE BASE
								14							304	14	CY	4" AGGREGATE BASE
		57	252	284	128	9	1	21							304	752	CY	6" AGGREGATE BASE
			21	5											304	26	CY	8" AGGREGATE BASE
		83	344	409	230	30	15								407	1111	GAL	TACK COAT (0.06 GAL/SY)
		13	73	29	41	10									411	166	CY	6" STABILIZED CRUSHED AGGREGATE
				28											441	28	CY	1.5" ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG70-22M
								6							441	6	CY	1.5" ASPHALT CONCRETE, SURFACE COURSE, (TYPE 1), PG64-22M
				32											441	32	CY	1.75" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2 (448)
								7							441	7	CY	2" ASPHALT CONCRETE, INTERMEDIATE COURSE, (TYPE 2)
				20	30	2	1								442	53	CY	1.5" ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A (448)
		18	78	26											442	122	CY	2" ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A (448)
				23	35	2	1								442	61	CY	1.75" ASPHALT CONCRETE INTERMEDIATE COURSE, 19MM, TYPE A (448)
		21	88	29											442	138	CY	2.25" ASPHALT CONCRETE INTERMEDIATE COURSE, 19MM, TYPE A (448)
				3											1530	3	CY	1.25" SURFACE COURSE
				4											1530	4	CY	1.75" INTERMEDIATE ASPHALT CONCRETE, TYPE 2
				8											807	8	EA	VALVE BOX ADJUSTED TO GRADE
2															809	2	EA	FIRE HYDRANT, RELOCATED
										4	23	39	2	5	621	73	EA	RPM, TWO-WAY WHITE/RED
										5	28	21	28	23	621	105	EA	RPM, TWO-WAY YELLOW
										5	18	30	29		621	82	EA	RPM, ONE-WAY WHITE
											1	1	1		630	3	EA	REMOVAL OF GROUND MOUNTED SIGN AND DELIVERY
											1	1	1		630	3	EA	REMOVAL OF GROUND MOUNTED POST SUPPORT AND DELIVERY
											1				630	1	EA	REMOVAL OF GROUND MOUNTED SIGN AND REERECTION
										13	28.5	95	28.5	13.5	630	178.5	FT	GROUND MOUNTED SUPPORT, NO 3 POST
										10	28	75	28	9	630	150	SF	SIGN, FLAT SHEET
	9														642	9	EA	LANE ARROWS REMOVED (BY WATERBLASTING)
	23														642	23	FT	STOP LINE REMOVED (BY WATERBLASTING)
		551													642	551	FT	CHANNELIZING LINE REMOVED (BY WATERBLASTING)
	0.48														642	0.48	MI	CENTERLINE REMOVED (BY WATERBLASTING)
	0.6														642	0.6	MI	EDGE LINE REMOVED (BY WATERBLASTING)
	360														642	360	FT	TRANSVERSE LINE REMOVED (BY WATERBLASTING)
	34														642	34	EA	RPM REMOVED
										0.08	0.19	0.10	0.22	0.09	644	0.68	MI	CENTER LINE
										150	661	863	42	106	644	1822	FT	CHANNELIZING LINE, 10"
												130			644	130	FT	STOP LINE
										28	274		233	166	644	701	FT	TRANSVERSE LINE
										0.05	0.21	0.14	0.23		644	0.63	MI	EDGE LINE
												553			644	553	FT	CROSSWALK LINE
										2	11	15	1	2	644	31	EA	LANE ARROW

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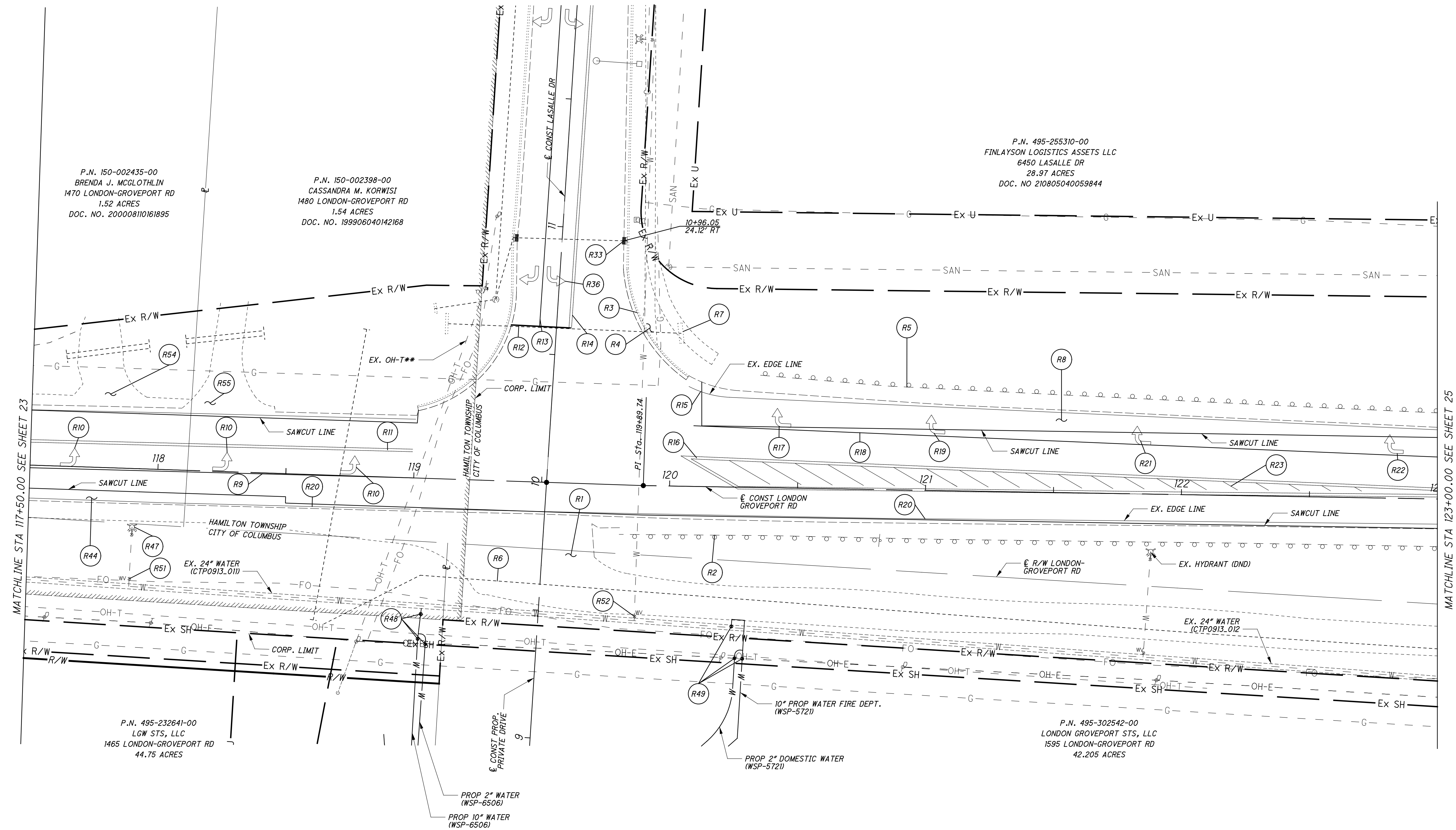
GENERAL SUMMARY										
SHEET	SHEET	SHEET	SHEET	SHEET	SHEET	SHEET	ITEM	TOTAL	UNIT	DESCRIPTION
8	9	10	11	12	13	68				
										MAINTENANCE OF TRAFFIC
	1	1					614	2	EA	WORK ZONE IMPACT ATTENUATOR
	0.07	0.16	0.15	0.11	0.15		614	0.64	MI	WORK ZONE CENTER LINE, CLASS 1
	0.12	0.29	0.29	0.21	0.21		614	1.12	MI	WORK ZONE EDGE LINE, CLASS 1
	60			71			614	131	FT	WORK ZONE STOP LINE
	17	196			53		614	266	FT	WORK ZONE DOTTED LINE
	365			184	147		614	696	FT	WORK ZONE CHANNELIZING LINE
	4			4			614	8	EA	WORK ZONE LANE ARROW
45							614	45	EA	BARRIER REFLECTOR, TYPE 1 ONE-WAY
45							614	45	EA	OBJECT MARKER, ONE-WAY
465							615	465	SY	TEMPORARY PAVEMENT
20							616	20	M. GAL	WATER
	205	745	770	540			622	2260	FT	PORTABLE CONCRETE BARRIER, 32"
							614	1	FT	MAINTAINING TRAFFIC
							619	3	MO	FIELD OFFICE, TYPE A
							624	1	LS	MOBILIZATION
										TRAFFIC SIGNAL
						15	625	15	EA	GROUND ROD
						349	625	349	FT	NO. 4 AWG 600 VOLT DISTRIBUTION CABLE
						2	625	2	EA	PULL BOX, 725.06, 12"x18" (TRAFFIC)
						3	625	3	EA	PULL BOX, 27"
						1	625	1	EA	PULL BOX, 32"
						209	625	209	FT	TRENCH, AS PER PLAN
						424	625	424	FT	CONDUIT, 2", 725.051
						38	625	38	FT	CONDUIT, 3", 725.051
						22	625	22	FT	CONDUIT, CONCRETE ENCASED, 2" 725.051
						1	625	1	EA	BRACKET ARM, 30', AS PER PLAN
						27	630	27	SF	STREET NAME SIGN
						1	630	1	LUMP	SIGNING MISC.: TRAFFIC SIGNAL SIGNS
						6	632	6	EA	VEHICULAR SIGNAL HEAD, L.E.D., 3-SECTION, 12" LENS, 1-WAY, POLYCARBONATE
						2	632	2	EA	VEHICULAR SIGNAL HEAD, L.E.D., 5-SECTION, 12" LENS, 1-WAY, POLYCARBONATE
						8	632	8	EA	PEDESTRIAN SIGNAL HEAD
						4	632	4	EA	PEDESTRIAN PUSHBUTTON
						1	632	1	EA	SIGNALIZATION MISC.: DILEMMA ZONE RADAR DETECTION SYSTEM
						1	632	1	EA	SIGNALIZATION MISC.: STOP LINE RADAR DETECTION SYSTEM
						3	632	3	EA	STRAIN POLE FOUNDATION
						1	632	1	EA	STRAIN POLE FOUNDATION, 24', AS PER PLAN
						8	632	8	EA	PEDESTAL FOUNDATION

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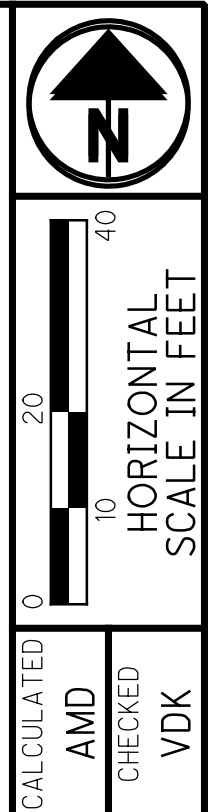
GENERAL SUMMARY						
SHEET	SHEET	SHEET	ITEM	TOTAL	UNIT	DESCRIPTION
67	68	71				
						TRAFFIC SIGNAL (CONT'D)
	3		632	3	EA	STRAIN POLE, TYPE 4170, DESIGN 13, AS PER PLAN
	1		632	1	EA	COMBINATION STRAIN POLE, TYPE 4170, DESIGN 13, AS PER PLAN
	8		632	8	EA	PEDESTAL SUPPORT, 10.7', TRANSFORMER BASE
	405		632	405	FT	MESSENGER WIRE, 7 STRAND, 1/2 INCH DIA. WITH ACCESSORIES
	405		632	405	FT	TETHER WIRE, WITH ACCESSORIES
	1594		632	1594	FT	SIGNAL CABLE, 7 CONDUCTOR, NO. 14 AWG
	502		632	502	FT	SIGNAL CABLE, 9 CONDUCTOR, NO. 14 AWG
	938		632	938	FT	LOOP DETECTOR LEAD-IN CABLE, IMSA 50-2
	29		632	29	FT	POWER CABLE, 2 CONDUCTOR, NO. 6 AWG
	57		632	57	FT	POWER CABLE, 3 CONDUCTOR, NO. 6 AWG
	1		632	1	EA	SIGNALIZATION, MISC.: POWER METER CABINET TYPE I, BASE MOUNT, WITH FOUNDATION
	8		632	8	EA	COVERING OF VEHICULAR SIGNAL HEAD
	8		632	8	EA	COVERING OF PEDESTRIAN SIGNAL HEAD
	4		632	4	EA	COVERING OF PEDESTRIAN PUSHBUTTON
	1		632	1	EA	SIGNALIZATION, MISC.: CELLULAR ETHERNET COMMUNICATIONS UNIT
	1		633	1	EA	CONTROLLER UNIT, TYPE TS2/A2, W/ CABINET 16 CH, SIZE 6, GROUND MOUNTED, AS PER PLAN
	1		633	1	EA	CABINET FOUNDATION
	1		633	1	EA	CONTROLLER WORK PAD
	1		633	1	EA	CONTROLLER ITEM, MISC.: LAYER 2 ETHERNET SWITCH
	2		633	2	EA	CONTROLLER ITEM, MISC.: FIBER OPTIC ETHERNET TRANSCEIVER, SHORT RANGE
	1		632	1	EA	INTERCONNECT, MISC.: INTERCONNECT EQUIPMENT RELOCATED
1			632	1	FT	REMOVAL OF TRAFFIC SIGNAL INSTALLATION
						LIGHTING
						STREET LIGHT LOCKOUT/TAGOUT (LOTO) (MIS-1)
						GUIDELINES FOR INSPECTION & ACCEPTANCE OF STREET LIGHTING SYSTEMS (MIS-2)
						GUIDELINES FOR STREET LIGHTING "MATERIALS FOR APPROVAL" SUBMITTAL PACKAGES (MIS-3)
						INSPECTION CHECKLIST (MIS-4)
		1	1001	1	EA	PULL BOX (MIS-54), AS PER PLAN
		1	1001	1	EA	CT METER CABINET, 480 VOLT SCP FED LIGHTING CIRCUITS (MIS-59), AS PER PLAN
		184	1001	184	CKT-FT	UNDERGROUND CIRCUIT, 2 WIRE (MIS-403)
		1	1001	1	EA	POLE TO BE WIRED, 2 WIRE (MIS-500)
		1	1001	1	EA	CONTROLLER, 2 WIRE, 480V, PEDESTAL MOUNT (MIS-602)
		103	1001	103	FT	2" CONDUIT, CONCRETE ENCASED (MIS-700)
		1	1001	1	EA	FOUNDATION REMOVAL (MIS-901)
					LUMP	EXISTING UNDERGROUND SYSTEM REMOVAL (MIS-902)



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NOTE:
*CONTRACTOR SHALL CONFIRM THAT OH ELECTRIC LINES
HAVE BEEN RELOCATED TO PROVIDE CLEARANCE TO
PROPOSED SIGNAL STRAIN POLE AND SPAN AS REQUIRED
BY OSHA PRIOR TO INSTALLATION OF STRAIN POLES.
**CONTRACTOR SHALL CONFIRM THAT OH-T WILL NOT
BLOCK VISIBILITY OF TRAFFIC SIGNAL HEADS OR REST ON
TRAFFIC SIGNAL SPAN. TELECOM SHALL BE RELOCATED IF
NECESSARY.



CALCULATED
AMD
CHECKED
VDK

DEMOLITION PLAN

IMPROVEMENTS OF LONDON-GROVEPORT ROAD
FROM 862' WEST OF LASALLE DR
TO 1000' EAST OF LASALLE DR
FROM 2300' SOUTH OF LONDON-GROVEPORT RD
TO 2025' SOUTH OF LONDON-GROVEPORT RD

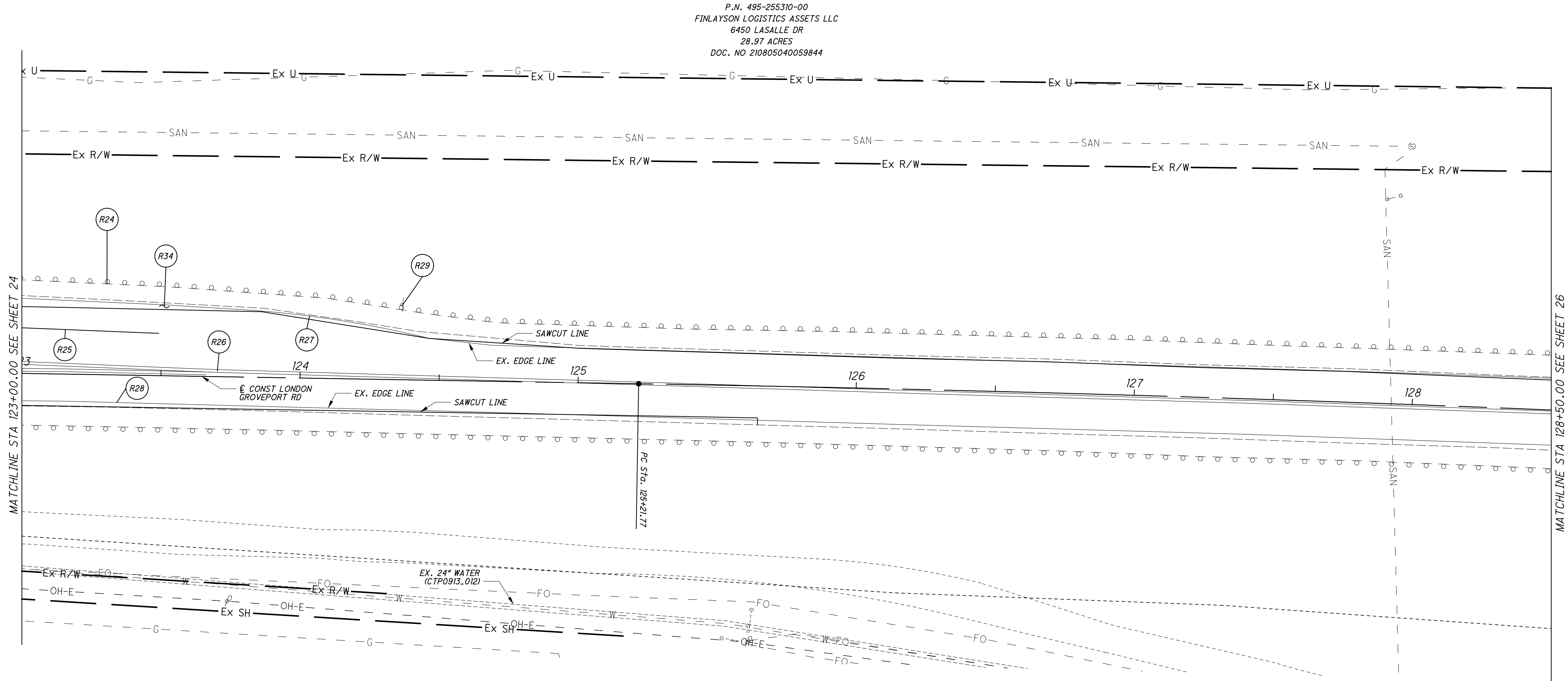
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MATCHLINE STA 117+50.00 SEE SHEET 23

MATCHLINE STA 123+00.00 SEE SHEET 25

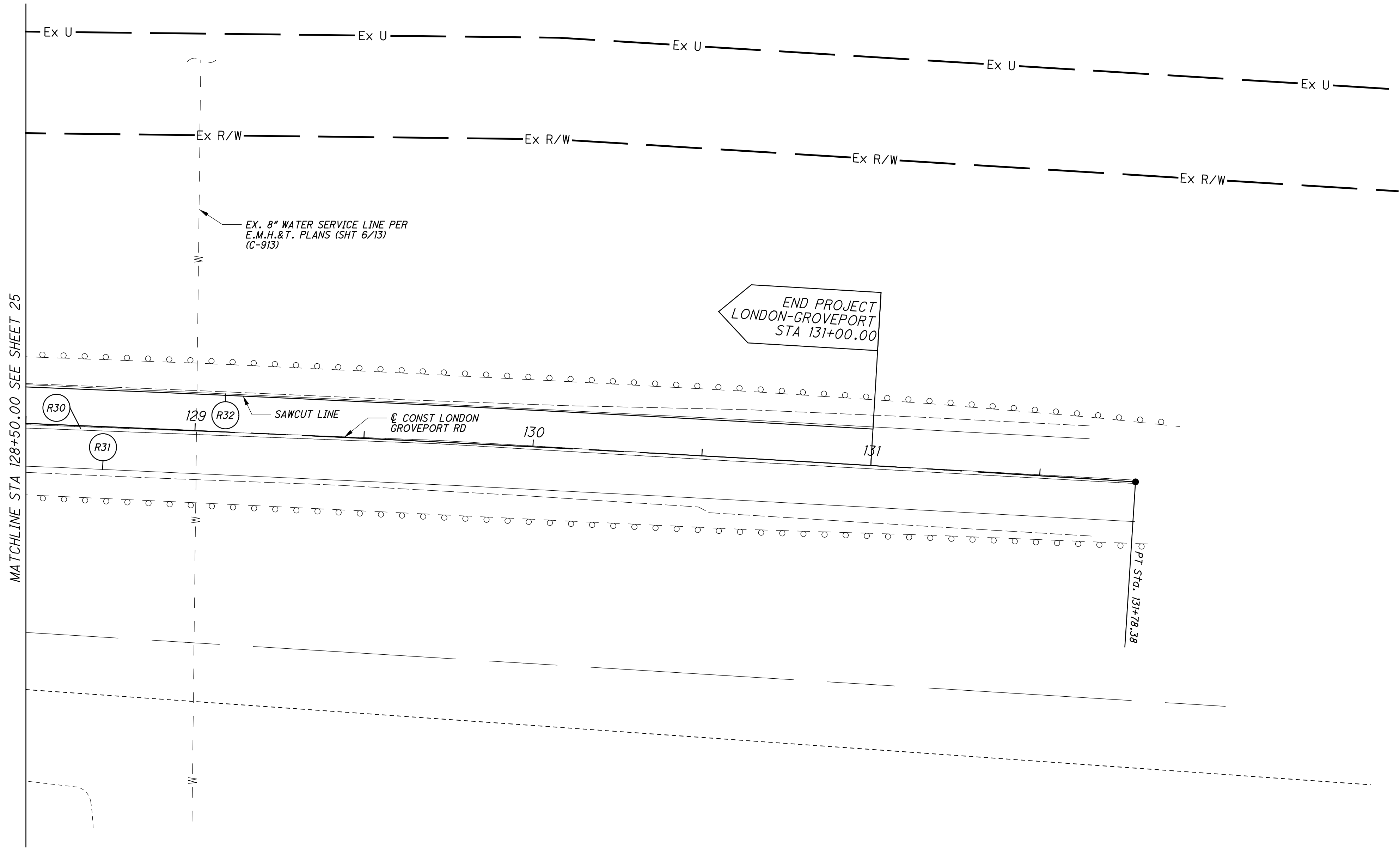
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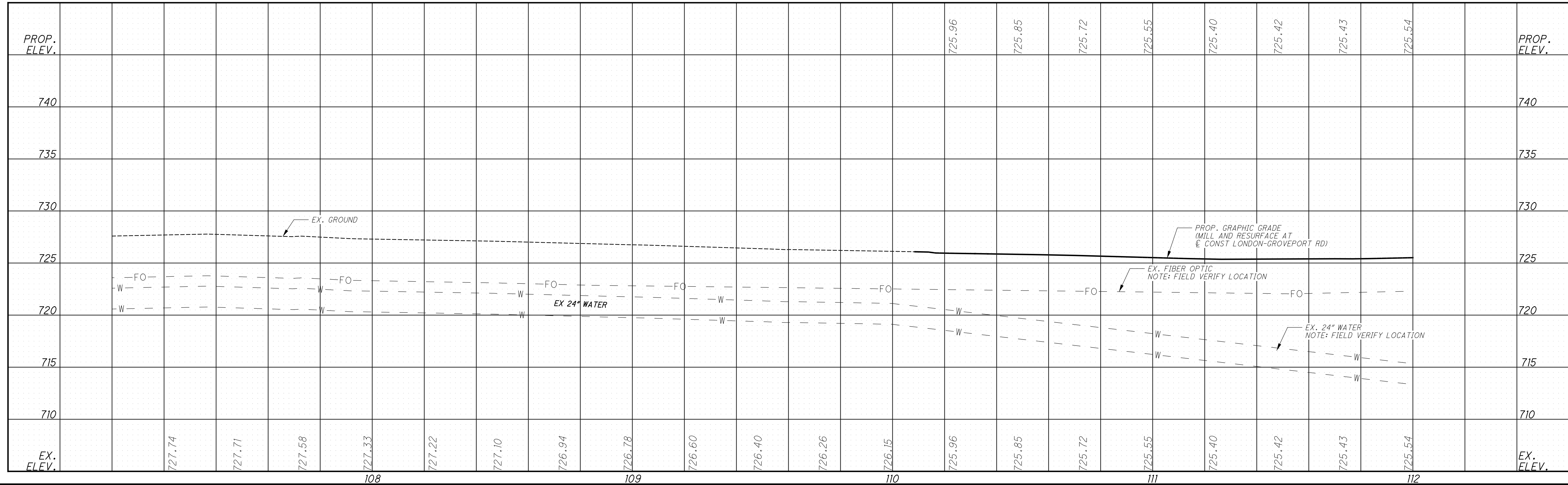
CALCULATED AMD	CHECKED VDK

0 10 20 40
HORIZONTAL
SCALE IN FEET



REFERENCE NO.	LOCATION	STATION		SIDE	202	202	202	202	202	202	202	202	202	630	642	642	642	642	642	642	642	642
					GUARDRAIL REMOVED	COMBINATION CURB AND GUTTER REMOVED	WALK REMOVED	CURB INLET REMOVED	AGGREGATE DRIVE REMOVED	PAVEMENT REMOVAL	PIPE REMOVED	HEADWALL REMOVED	REMOVAL OF GROUND MOUNTED SIGN AND DELIVERY	LANE ARROWS REMOVED	STOP LINE REMOVED	CHANNELIZING LINE REMOVED	CENTERLINE REMOVED	EDGE LINE REMOVED	TRANSVERSE LINE REMOVED	RPM REMOVED	HYDRANT REMOVED	VALVES ADJUSTED TO GRADE
		FROM	TO		FT	FT	SF	EA	SY	SY	FT	EA	EA	EA	FT	FT	MI	MI	FT	EA	EA	EA
R1	LONDON-GROVEPORT RD	118+60	120+18	RT					454													
R2	LONDON-GROVEPORT RD	119+81	121+00	RT	120																	
R3	LASALLE DR	12+07	11+42	LT		111																
R4	LASALLE DR	10+56	10+95	RT			145															
R5	LONDON-GROVEPORT RD	120+35	123+00	LT	265																	
R6	LONDON-GROVEPORT RD	118+67	119+51	RT							89											
R7	LONDON-GROVEPORT RD	120+04		LT							1											
R8	LONDON-GROVEPORT RD	120+06	123+00	LT					249													
R9	LONDON-GROVEPORT RD	117+50	119+00	RT												150				2		
R10	LONDON-GROVEPORT RD	117+67; 118+27; 118+77		LT										3								
R11	LONDON-GROVEPORT RD	118+50	119+00	LT													0.03			1		
R12	LASALLE DR	10+60	10+61	LT/RT											23							
R13	LASALLE DR	10+61	10+71	LT												10						
R14	LASALLE DR	10+61	10+72	RT													0.01					
R15	LONDON-GROVEPORT RD	120+07	123+00	LT														0.06				
R16	LONDON-GROVEPORT RD	120+06	123+00	LT/RT													0.12					
R17	LONDON-GROVEPORT RD	120+42		LT										1								
R18	LONDON-GROVEPORT RD	120+09	123+00	LT												291						
R19	LONDON-GROVEPORT RD	121+02		LT										1								
R20	LONDON-GROVEPORT RD	117+50	123+00	RT														0.11				
R21	LONDON-GROVEPORT RD	121+82		LT										1								
R22	LONDON-GROVEPORT RD	121+81		LT										1								
R23	LONDON-GROVEPORT RD	120+06	123+00	LT															220			
R24	LONDON-GROVEPORT RD	123+00	128+50	LT	550																	
R25	LONDON-GROVEPORT RD	123+00	123+49	LT												49						
R26	LONDON-GROVEPORT RD	123+00	128+50	RT													0.06					
R27	LONDON-GROVEPORT RD	123+00	128+50	LT														0.11				
R28	LONDON-GROVEPORT RD	123+00	128+50	RT														0.11				
R29	LONDON-GROVEPORT RD	124+37		LT									1									
R30	LONDON-GROVEPORT RD	128+50	129+72	RT													0.03					
R31	LONDON-GROVEPORT RD	128+50	129+50	RT														0.02				
R32	LONDON-GROVEPORT RD	128+50	129+50	LT														0.02				
R33	LASALLE DR	10+96		RT				1														
R34	LONDON-GROVEPORT RD	123+00	128+50	LT						86												
R35	LONDON-GROVEPORT RD	110+37	112+00	RT						73												
R36	LASALLE DR	10+79		LT/RT										1								
R37	LONDON-GROVEPORT RD	110+64	117+50	LT/RT													0.23					
R38	LONDON-GROVEPORT RD	112+00	117+50	RT					615													
R39	LONDON-GROVEPORT RD	112+00	117+50	RT						199												
R40	LONDON-GROVEPORT RD	114+48	116+50	LT/RT															140			
R41	LONDON-GROVEPORT RD	116+99	117+50	RT												51						
R42	LONDON-GROVEPORT RD	117+08		LT										1								
R43	LONDON-GROVEPORT RD	110+37	117+50	RT														0.17				
R44	LONDON-GROVEPORT RD	117+50	118+50	RT						27												
R45	LONDON-GROVEPORT RD	110+37	117+50	LT/RT																31		
R46	LONDON-GROVEPORT RD	113+96		RT																	1	
R47	LONDON-GROVEPORT RD	117+91		RT																	1	
R48	LONDON-GROVEPORT RD	119+07	119+11	RT																		3
R49	LONDON-GROVEPORT RD	120+25	120+30	RT																		3
R50	LONDON-GROVEPORT RD	116+67	117+06	RT									2									
R51	LONDON-GROVEPORT RD	117+91		RT																		1
R52	LONDON-GROVEPORT RD	119+88		RT																		1
R53	LONDON-GROVEPORT RD	114+10	115+41	LT					33													
R54	LONDON-GROVEPORT RD	117+66	117+95	LT					22													
R55	LONDON-GROVEPORT RD	118+10	118+45	LT						9												
TOTALS CARRIED TO GENERAL SUMMARY					935	111	145	1	1124	643	89	1	3	9	23	551	0.48	0.60	360	34	2	8

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SEE SHEETS 58 - 62 FOR PROPOSED SIGNING AND PAVEMENT MARKINGS
SEE SHEETS 23 - 26 FOR REMOVAL ITEMS

P.N. 495-232642-00
JASON D. LAPAT & LAURA LAPAT
1345 LONDON-GROVEPORT RD
0.93 ACRES

P.N. 495-300546-00
THE HUB XO LLC
1302 LONDON-GROVEPORT RD
7.63 ACRES

REFERENCE PLAT/LOT:
GROVEPORT LOGISTICS HUB
P.B. 127, PG. 73
LOT 2

P.N. 150-002395-00
JOSEPH E. BUDD, ESQ., TRUSTEE
1408 LONDON-GROVEPORT RD
2.33 ACRES
DOC. NO 201204180053651

P.N. 495-232641-00
LGW STS LLC
1465 LONDON-GROVEPORT RD
44.75 ACRES

20

40

HORIZONTAL SCALE IN FEET

CALCULATED

AMD

CHECKED

VDK

LONDON-GROVEPORT RD - PLAN AND PROFILE

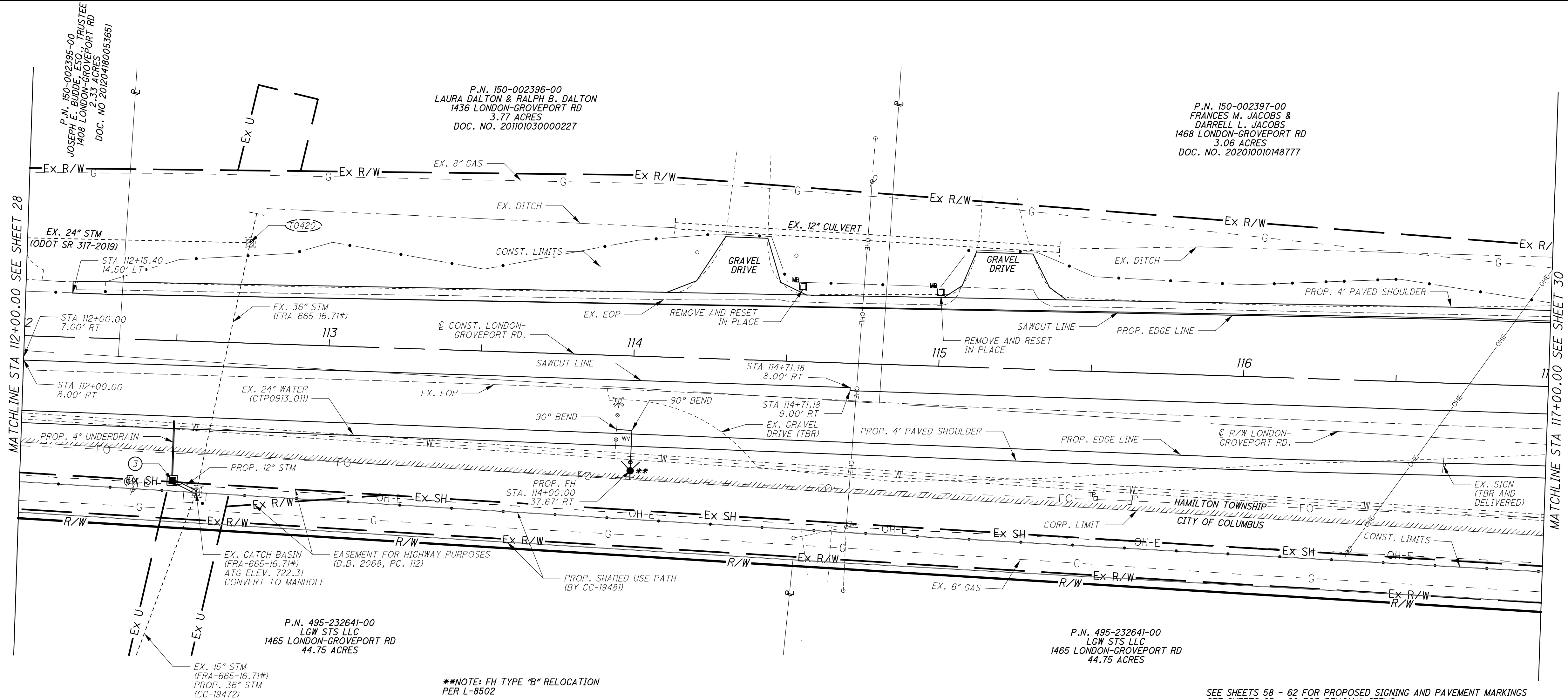
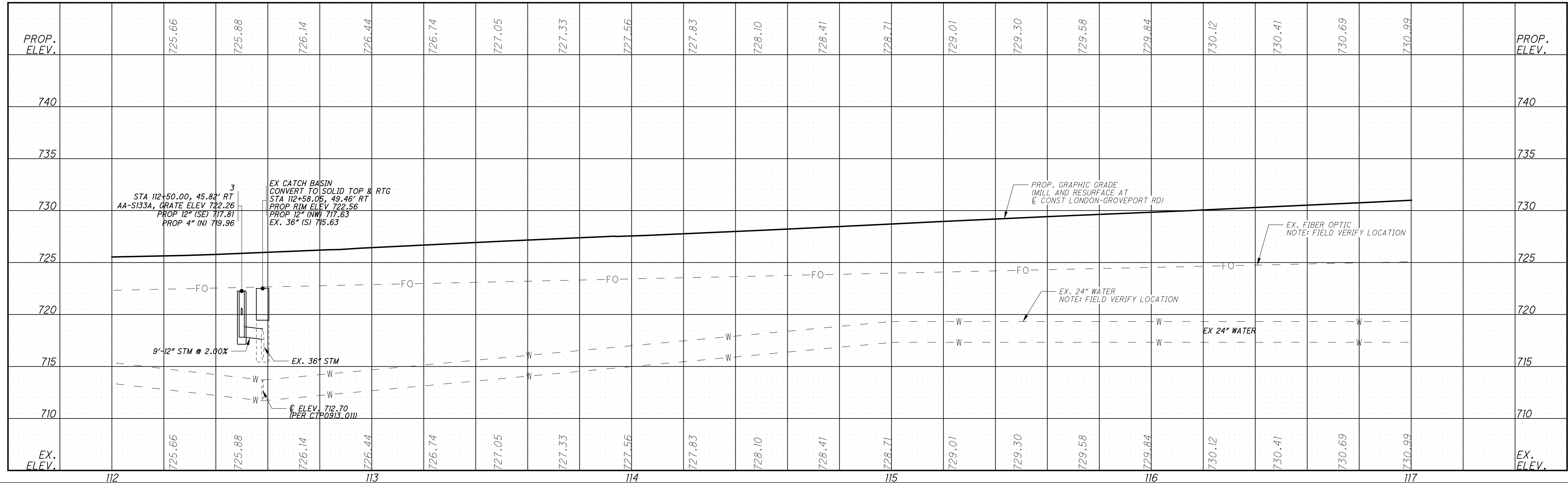
STA 107+50.00 TO STA 112+00.00



IMPROVEMENTS OF LONDON-GROVEPORT ROAD FROM 863' EAST OF LITTLE DR TO 1003' EAST OF LITTLE DR
LOCKBOURNE ROAD
FROM 2300' SOUTH OF LONDON-GROVEPORT RD TO 2025' SOUTH OF LONDON-GROVEPORT RD

28

72

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40
10
0
HORIZONTAL
SCALE IN FEET

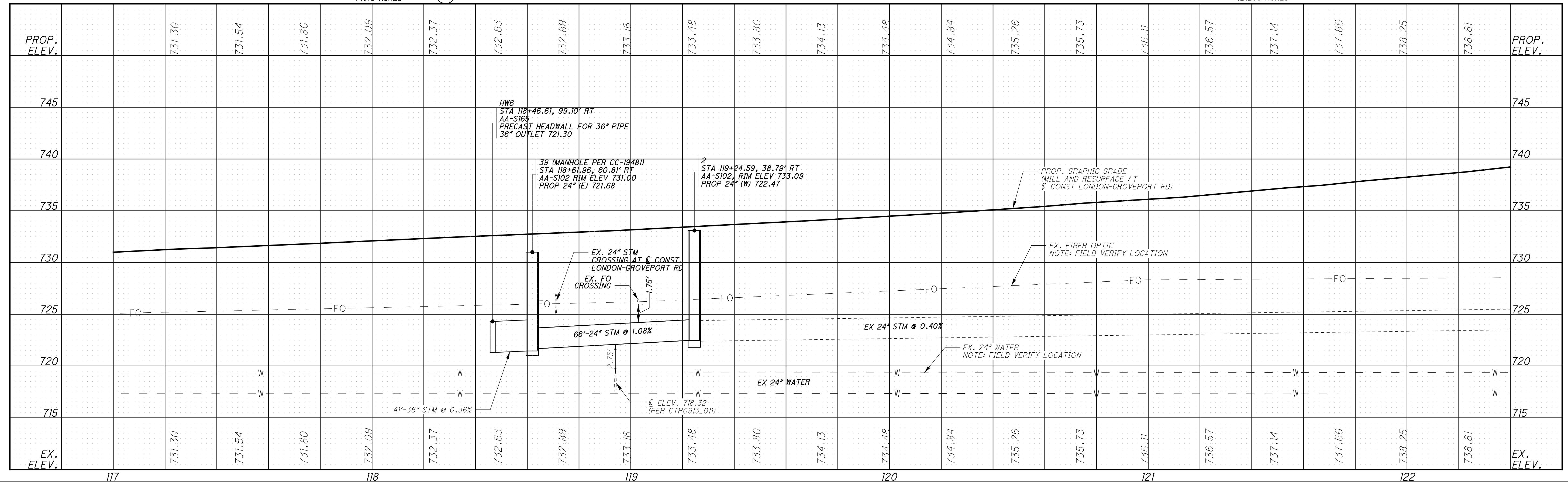
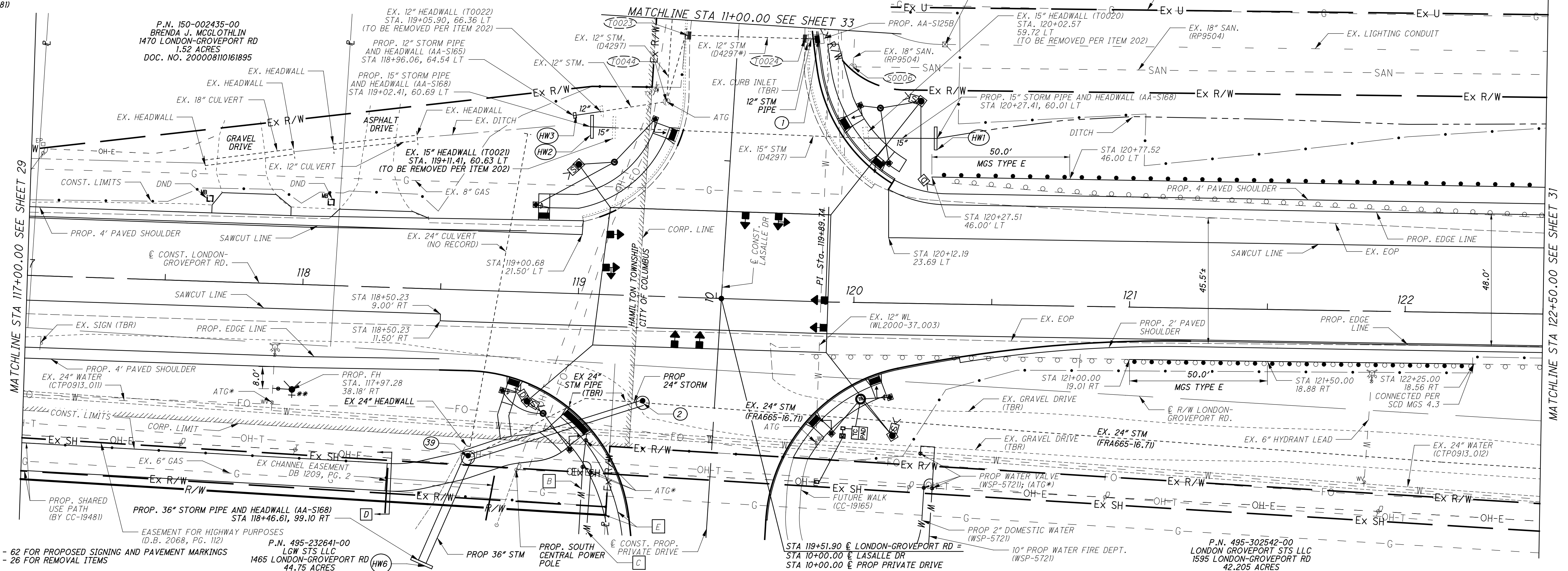
CALCULATED
AMD
CHECKED
VDK

LONDON-GROVEPORT RD - PLAN AND PROFILE
STA 112+00.00 TO STA 117+00.00

IMPROVEMENTS OF LONDON-GROVEPORT ROAD
FROM 863' WEST OF LITTLE DR
TO 1003' EAST OF LITTLE DR
LOCKBOURNE ROAD
FROM 2300' SOUTH OF LONDON-GROVEPORT RD
TO 2025' SOUTH OF LONDON-GROVEPORT RD

29
72


P.N. 495-255310-00
FINLAYSON LOGISTICS ASSETS LLC
6450 LASALLE DR
28.97 ACRES
DOC. NO 210805040059844



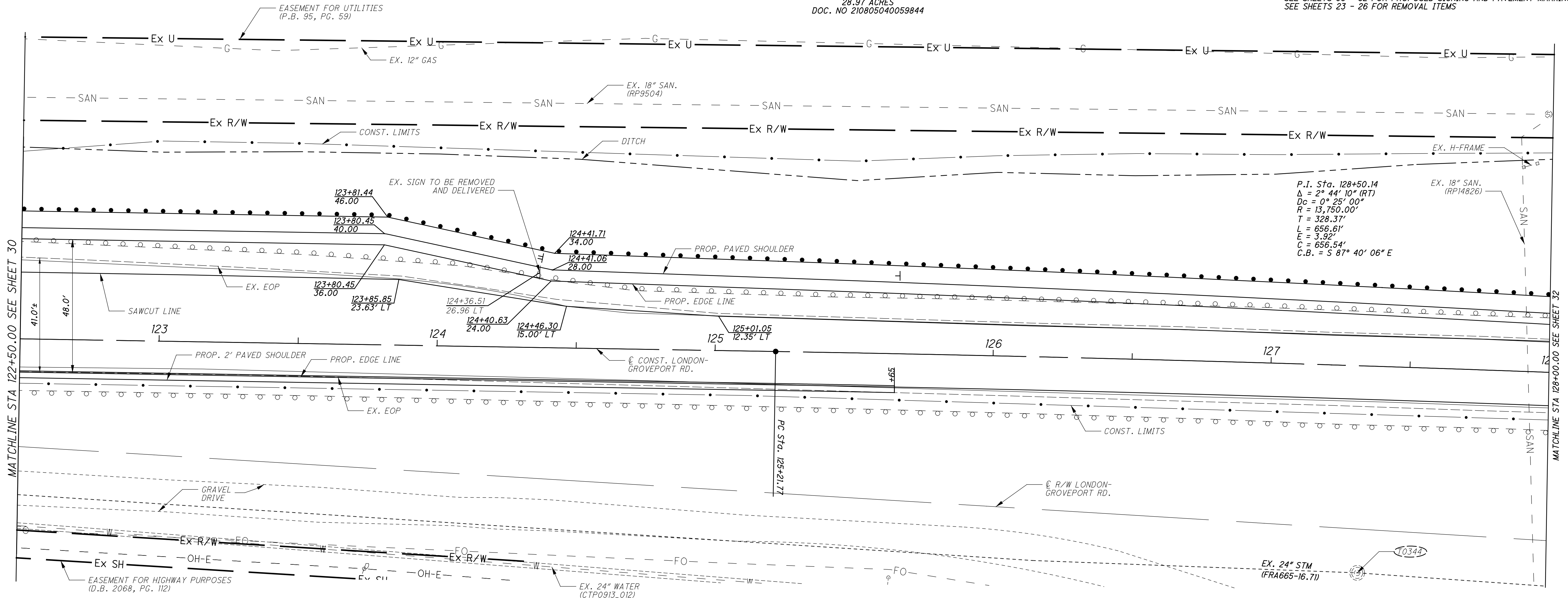
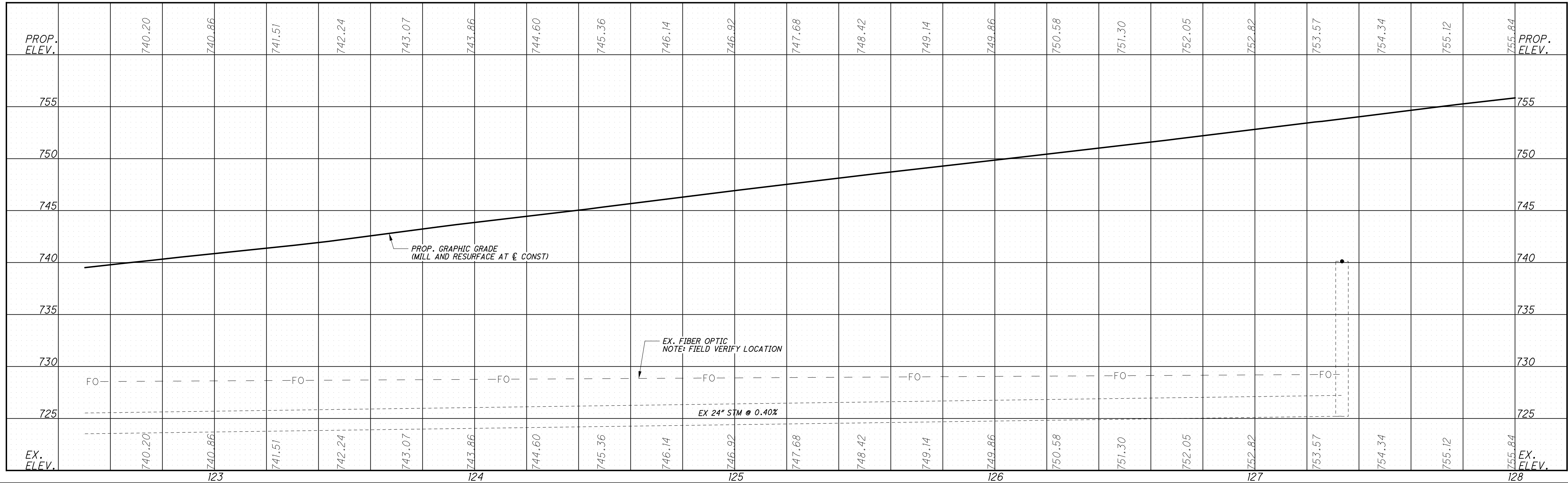
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LONDON-GROVEPORT RD - PLAN AND PROFILE
STA 117+00.00 TO STA 122+50.00

IMPROVEMENTS OF LONDON-GROVEPORT RD
FROM 925' WEST OF LASALLE DR
TO 1000' EAST OF LASELLE DR
LOCKBOURNE ROAD
FROM 2300' SOUTH OF LONDON-GROVEPORT RD
TO 2025' SOUTH OF LONDON-GROVEPORT RD



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0

10

20

40

HORIZONTAL SCALE IN FEET

CALCULATED

AMD

CHECKED

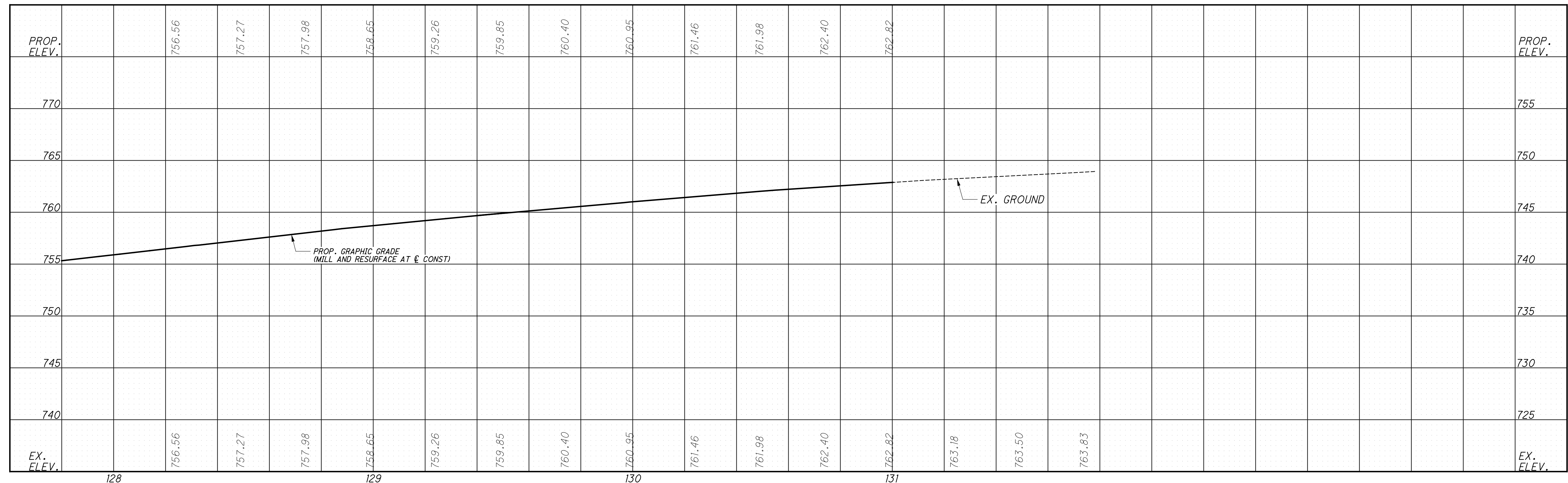
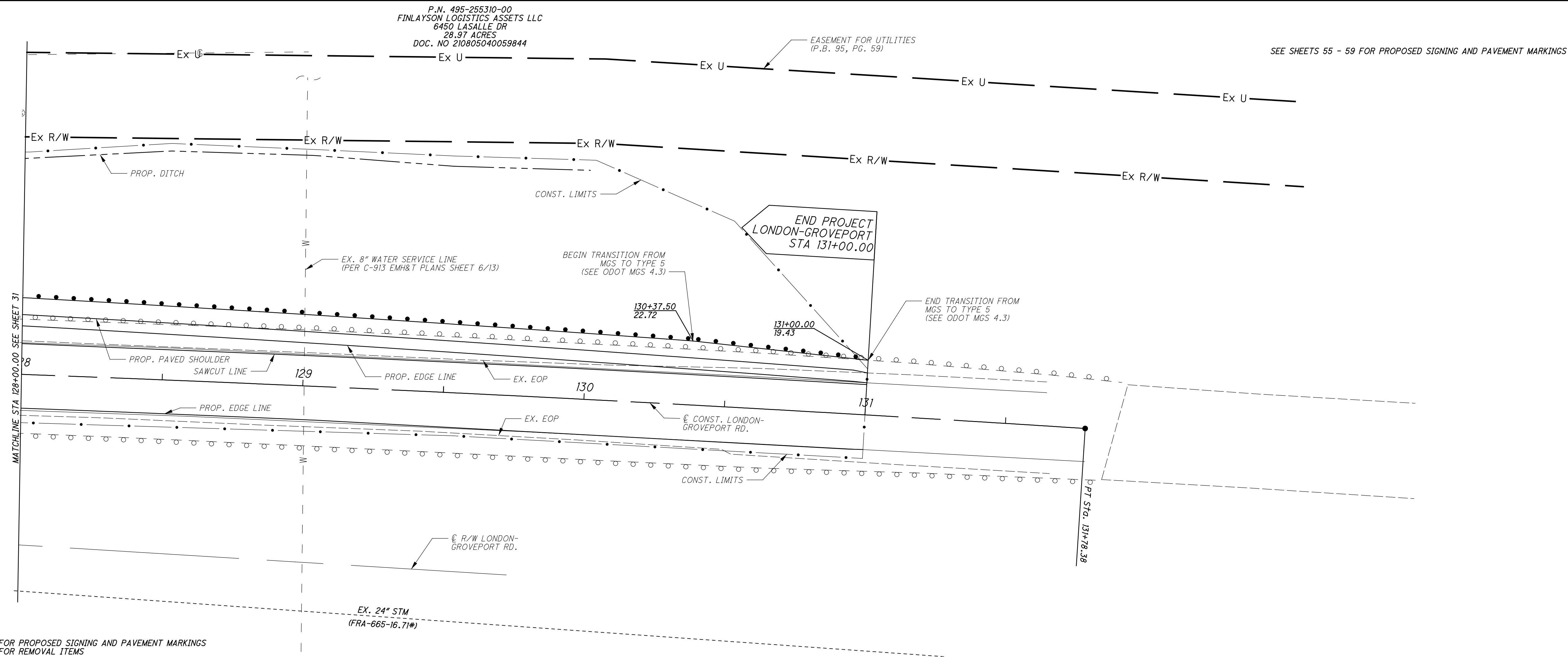
VDK

LONDON-GROVEPORT RD - PLAN AND PROFILE

STA 122+50.00 TO STA 128+00.00

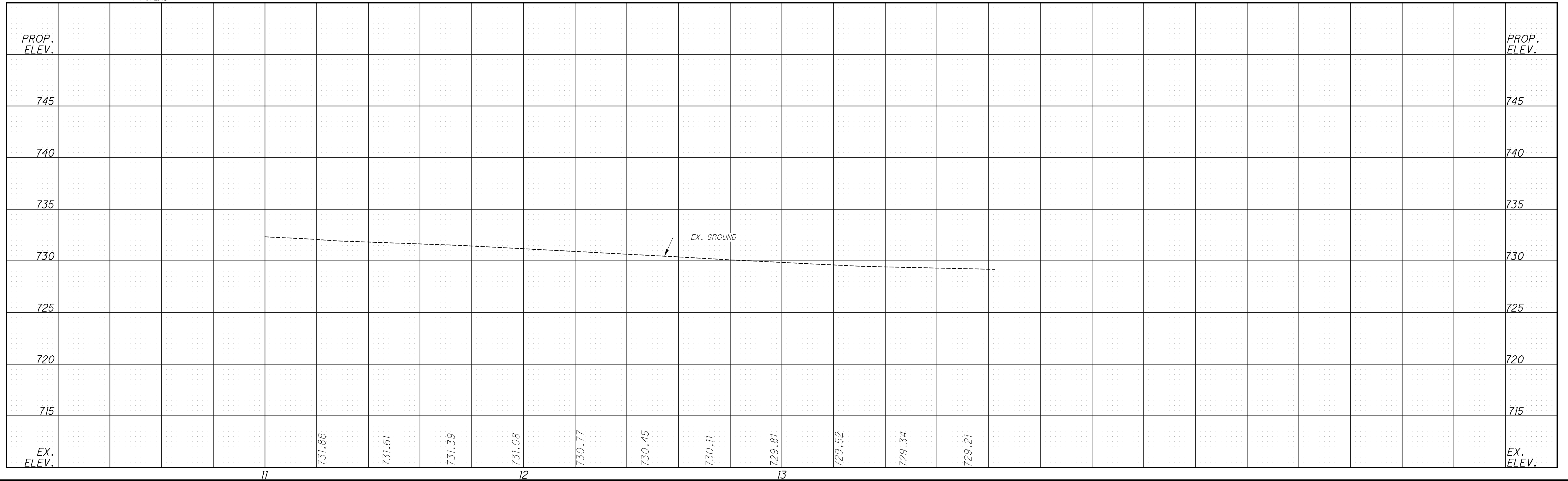
IMPROVEMENTS OF LONDON-GROVEPORT ROAD FROM 862' EAST OF LASALLE DR TO 1002' EAST OF LASALLE DR TO LOCKBOURNE ROAD FROM 2300' SOUTH OF LONDON-GROVEPORT RD TO 2025' SOUTH OF LONDON-GROVEPORT RD

31
72





SEE SHEETS 58 - 62 FOR PROPOSED SIGNING AND PAVEMENT MARKINGS
SEE SHEETS 23 - 26 FOR REMOVAL ITEMS



☐ A PROP 6" WATER (WSP 6979)

☐ B PROP 10" WATER (WSP 6979)

☐ C PROP 2" WATER (WSP 6979)

— PROP R
(PER SITE COMPLIANCE
PLAN 22345-00491)

P.N. 495-263119-00
PRUSHING FARMS PARTNERS LLC
6730 PRUSHING FARMS RD
182.388 ACRES

P.N. 495-232640-00
BECKY LYNN COUNTS
7258 LOCKBOURNE RD
42.181 ACRES

P.N. 495-260873-00
CITY OF COLUMBUS
7187 LOCKBOURNE RD
17.537 ACRES

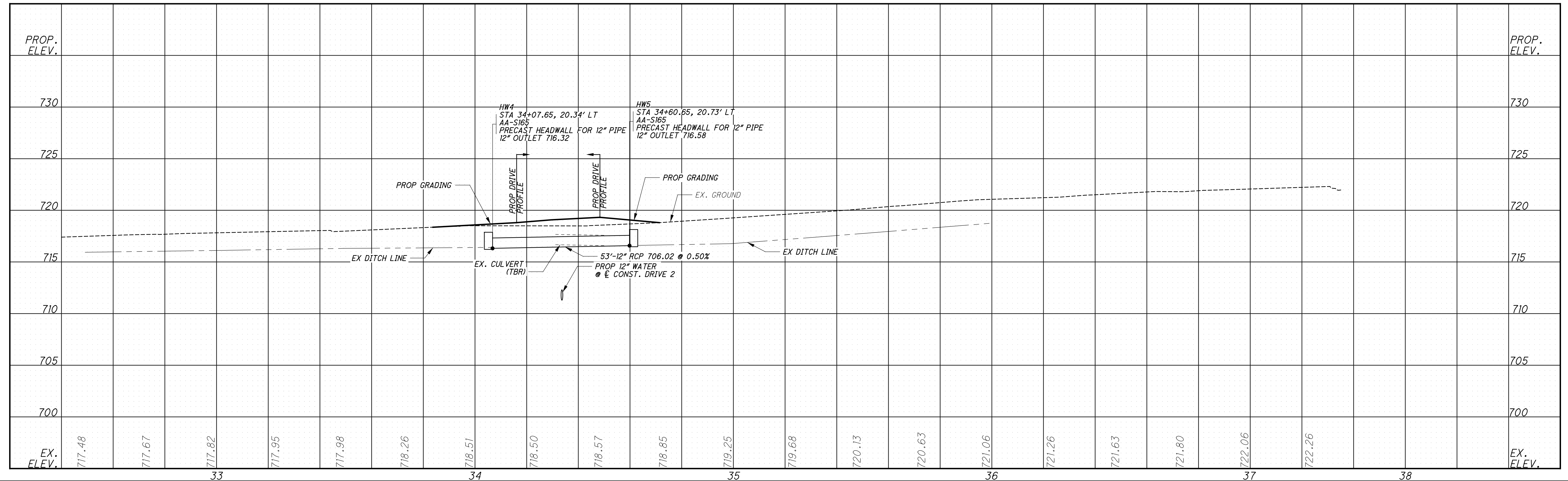
NOTE: OVERHEAD UTILITY CLEARANCE SHALL MEET ALL REQUIREMENTS OF THE UTILITY COMPANIES WITH A MIN. 17' CLEARANCE TO MEET CITY REQUIREMENTS. REQUIRES SEPARATE 903 PERMIT.

LOCKBOURNE RD DRIVE BUILD-UP
ITEM 441 - 1.5" ASPHALT CONCRETE, SURFACE COURSE, (TYPE 1), PG64-22M
ITEM 441 - 2" ASPHALT CONCRETE, INTERMEDIATE COURSE, (TYPE 2)
ITEM 301 - 4.5" ASPHALT CONCRETE BASE
ITEM 304 - 4" AGGREGATE BASE

BEGIN WORK
LOCKBOURNE RD
STA 33+84.13

P.N. 150-000368-00
LEON R BLAUVELT
7003 LOCKBOURNE RD
7.43 ACRES

ZONE AE



HORIZONTAL
SCALE IN FEET

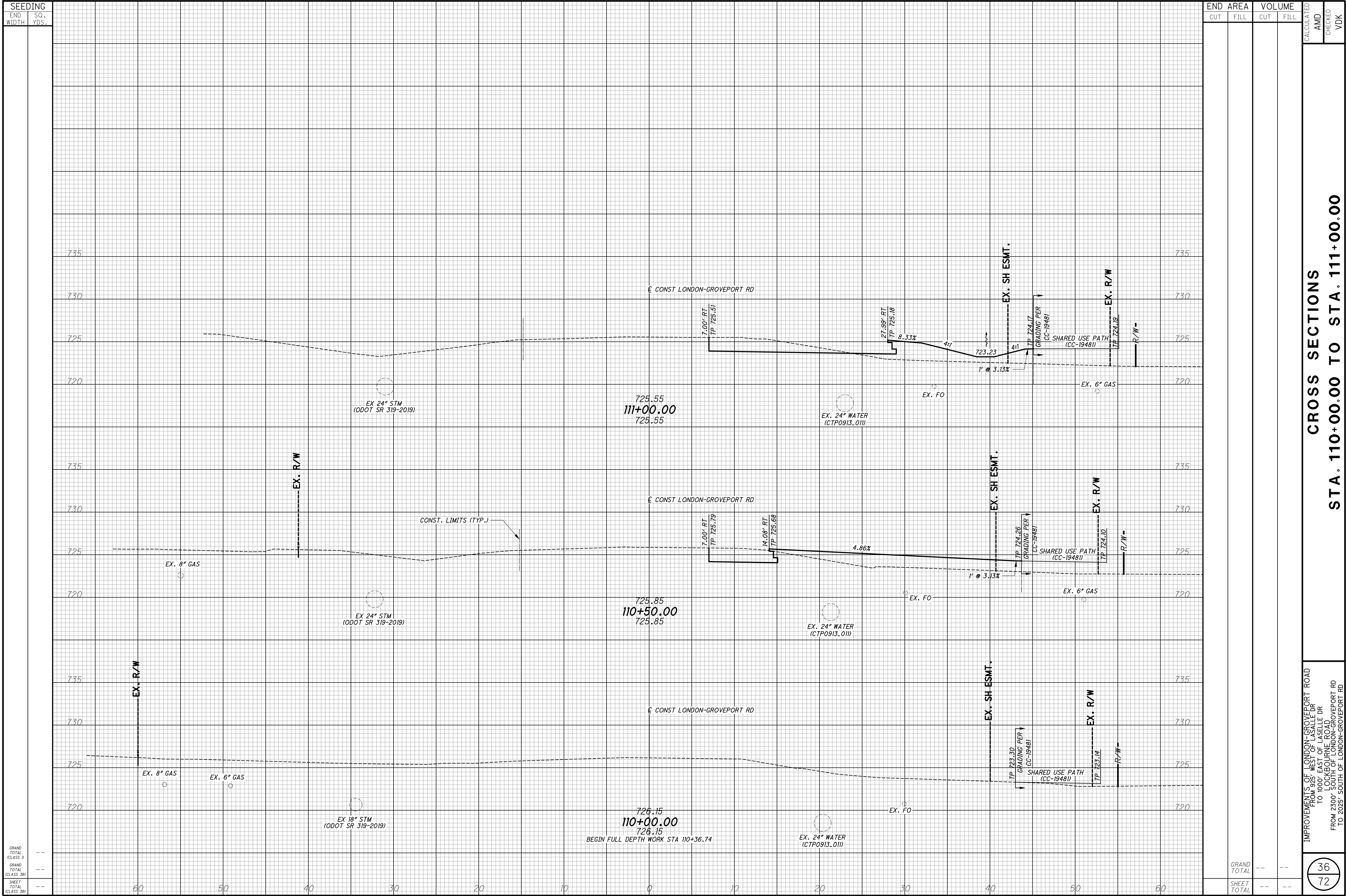
CALCULATED	
AMD	
CHECKED	
VDK	

LOCKBOURNE RD - PLAN AND PROFILE
STA 32+50.00 TO END WORK

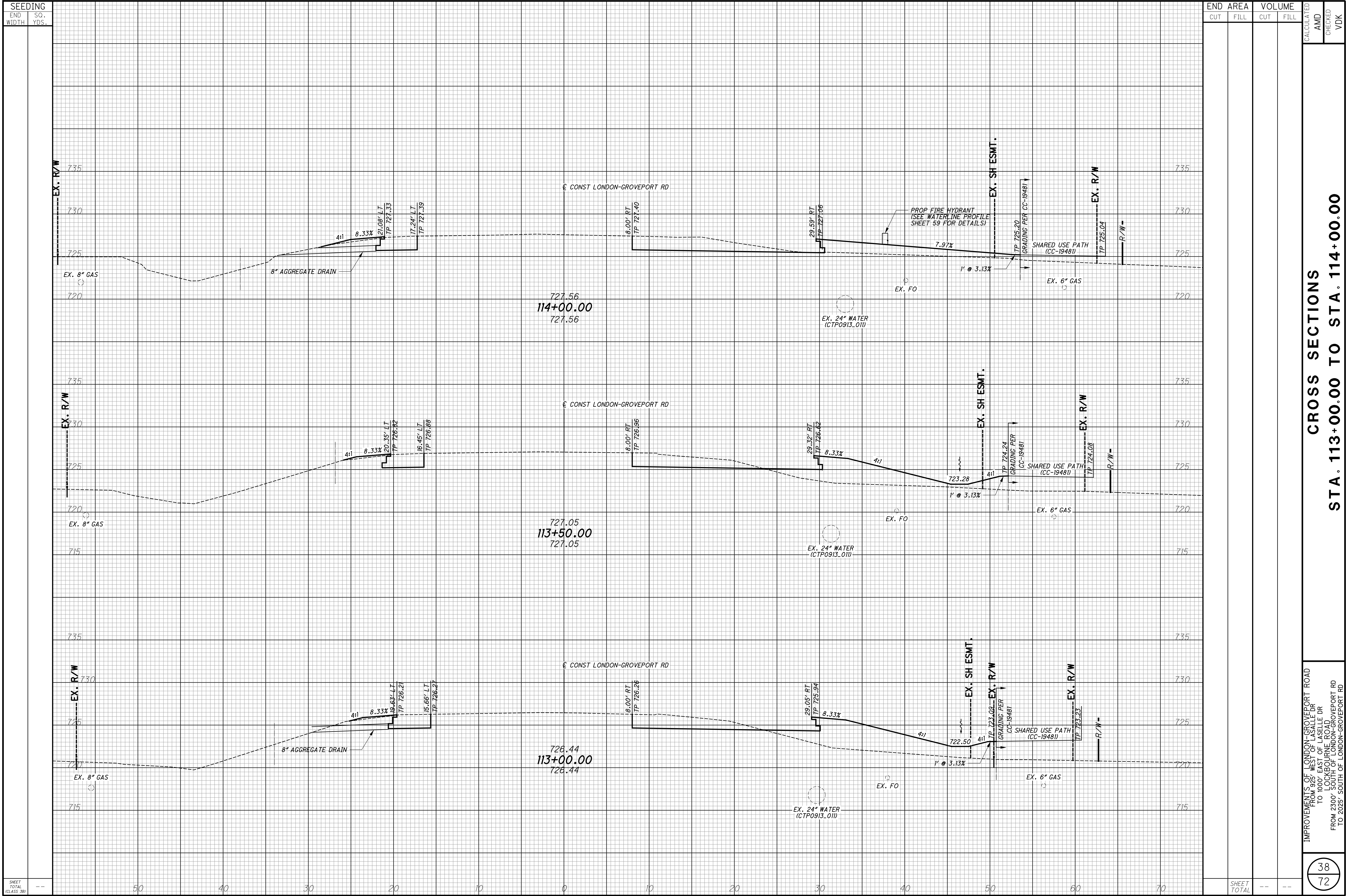
IMPROVEMENTS OF LONDON-GROVEPORT RD
FROM 925' WEST OF LASALLE DR
TO 1000' EAST OF LASELLE DR
LOCKBOURNE ROAD
FROM 2300' SOUTH OF LONDON-GROVEPORT RD
TO 2025' SOUTH OF LONDON-GROVEPORT RD

35
72

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CROSS SECTIONS
STA. 110+00.00 TO STA. 111+00.00



CROSS SECTIONS
STA. 113+00.00 TO STA. 114+00.00

IMPROVEMENTS OF LONDON-GROVEPORT ROAD
FROM 900' WEST OF LASELLE DR
TO 1000' EAST OF LASELLE DR
LOCKBOURNE ROAD
FROM 2300' SOUTH OF LONDON-GROVEPORT RD
TO 2025' SOUTH OF LONDON-GROVEPORT RD

SEEDING
END
WIDTH
SQ.
YDS.

740
735
730
725
720

EX. R/W

EX. 8" GAS

4:1

8.33%

23.25' LT
TP 728.86

19.62' LT
TP 728.91

CONST LONDON-GROVEPORT RD

9.00' RT
TP 729.08

30.38' RT
TP 728.75

5.20%

1' @ 3.13%

TP 724.37
GRADING PER
CC-19481

SHARED USE PATH
(CC-19481)

TP 721.16

EX. SH ESMT.

EX. R/W

740
735
730
725
720

EX. R/W

EX. 8" GAS

8.33%

22.53' LT
TP 728.46

18.82' LT
TP 728.52

CONST LONDON-GROVEPORT RD

9.00' RT
TP 728.46

30.12' RT
TP 728.13

4.90%

1' @ 3.13%

TP 726.87
GRADING PER
CC-19481

SHARED USE PATH
(CC-19481)

TP 726.63

EX. SH ESMT.

EX. R/W

740
735
730
725
720

EX. R/W

EX. 8" GAS

8.33%

21.80' LT
TP 727.66

16.03' LT
TP 727.71

CONST LONDON-GROVEPORT RD

18.00' RT
TP 727.88

28.85' RT
TP 727.54

5.55%

1' @ 3.13%

TP 726.17
GRADING PER
CC-19481

SHARED USE PATH
(CC-19481)

TP 726.01

EX. SH ESMT.

EX. R/W

740
735
730
725
720

EX. 8" GAS

EX. 12" CULVERT

EX. 12" CULVERT

EX. 12" CULVERT

EX. 24" WATER
(CTP0913.01)

EX. 24" WATER
(CTP0913.01)

EX. 24" WATER
(CTP0913.01)

EX. 6" GAS

EX. 6" GAS

EX. 6" GAS

EX. FO

EX. FO

EX. FO

EX. SH ESMT.

EX. R/W

740
735
730
725
720

729.30
115+50.00
729.30

728.71
115+00.00
728.71

728.10
114+50.00
728.10

END AREA
CUT
FILL

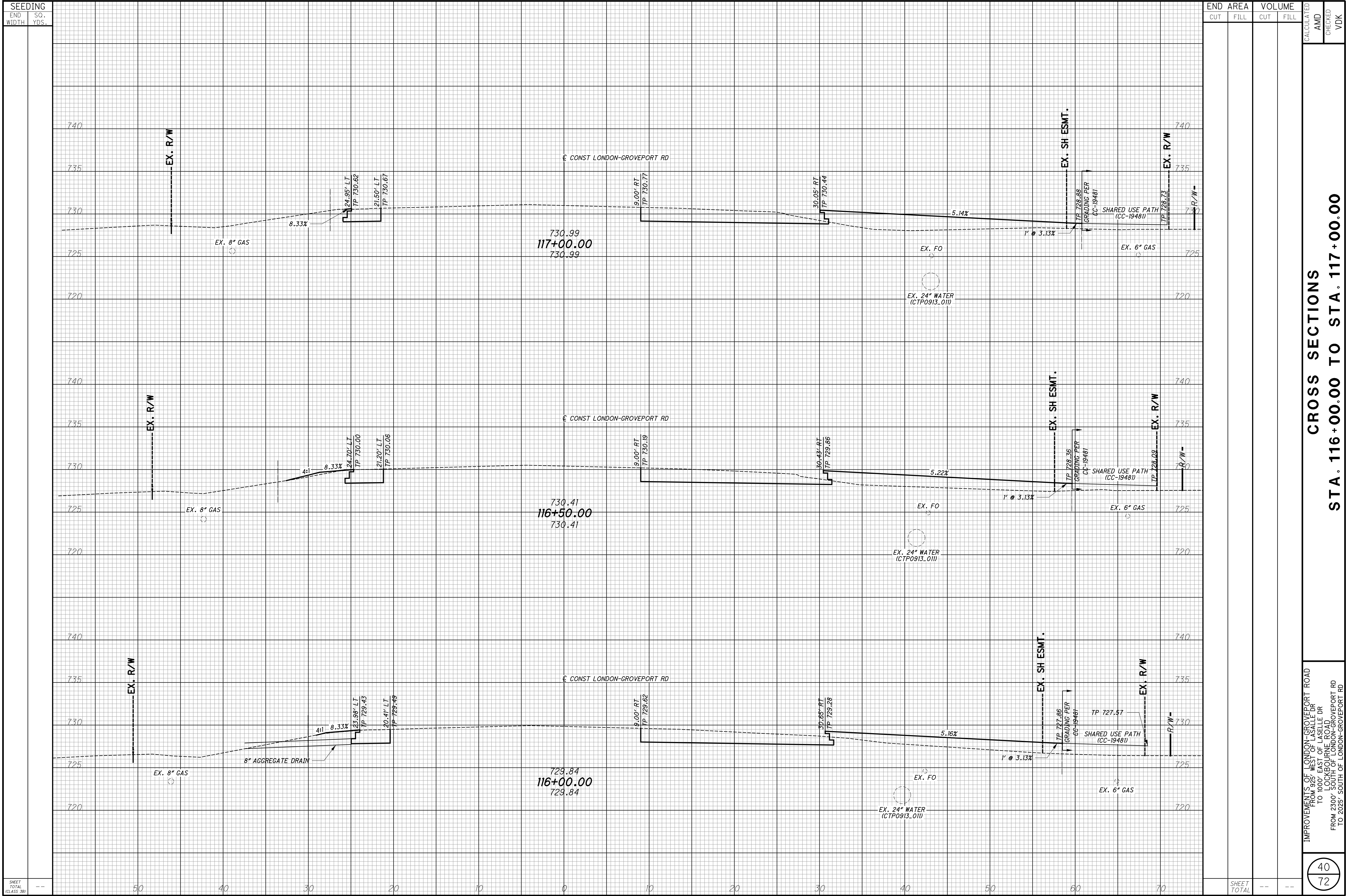
VOLUME
CUT
FILL

CROSS SECTIONS
STA. 114+50.00 TO STA. 115+50.00

IMPROVEMENTS OF LONDON-GROVEPORT ROAD
FROM 925' WEST OF LASELLE DR
TO 1000' EAST OF LASELLE DR
LOCKBOURNE ROAD
FROM 2300' SOUTH OF LONDON-GROVEPORT RD
TO 2025' SOUTH OF LONDON-GROVEPORT RD

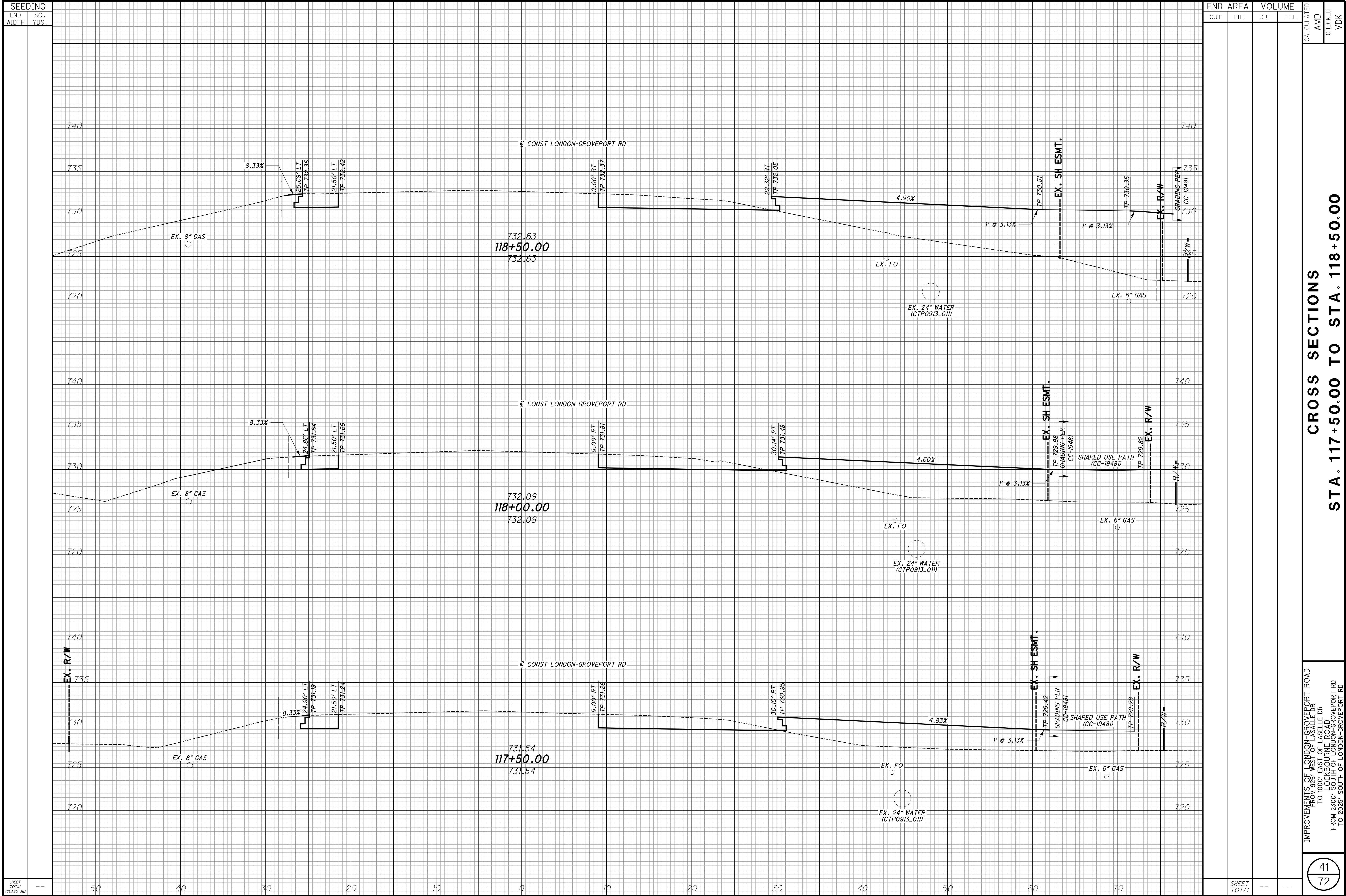
SHEET
TOTAL
(CLASS 3B)

39
72

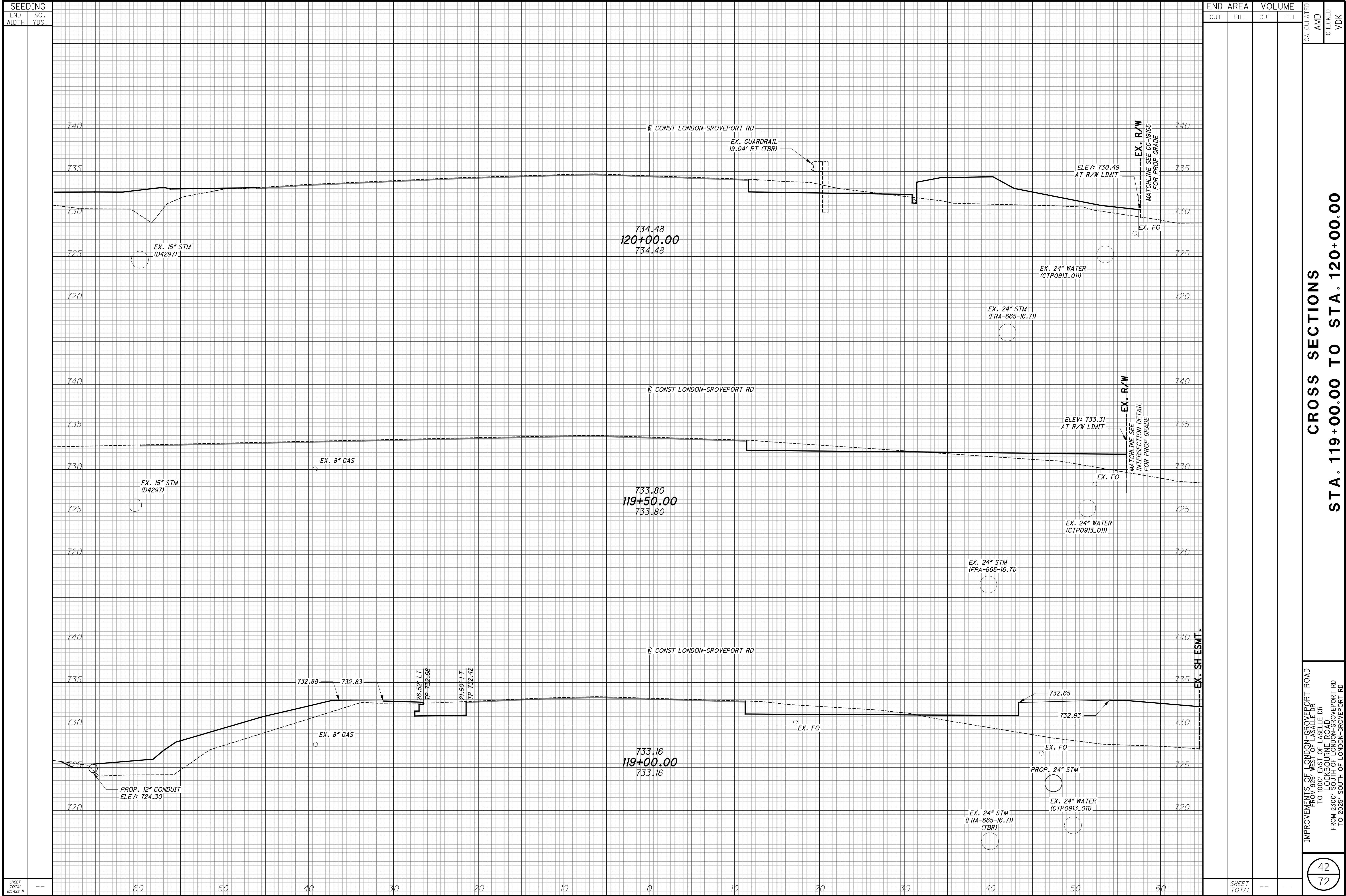


CROSS SECTIONS
STA. 116+00.00 TO STA. 117+00.00

IMPROVEMENTS OF LONDON-GROVEPORT ROAD
FROM 900' WEST OF LASELLE DR
TO 1000' EAST OF LASELLE DR
LOCKBOURNE ROAD
FROM 2300' SOUTH OF LONDON-GROVEPORT RD
TO 2025' SOUTH OF LONDON-GROVEPORT RD

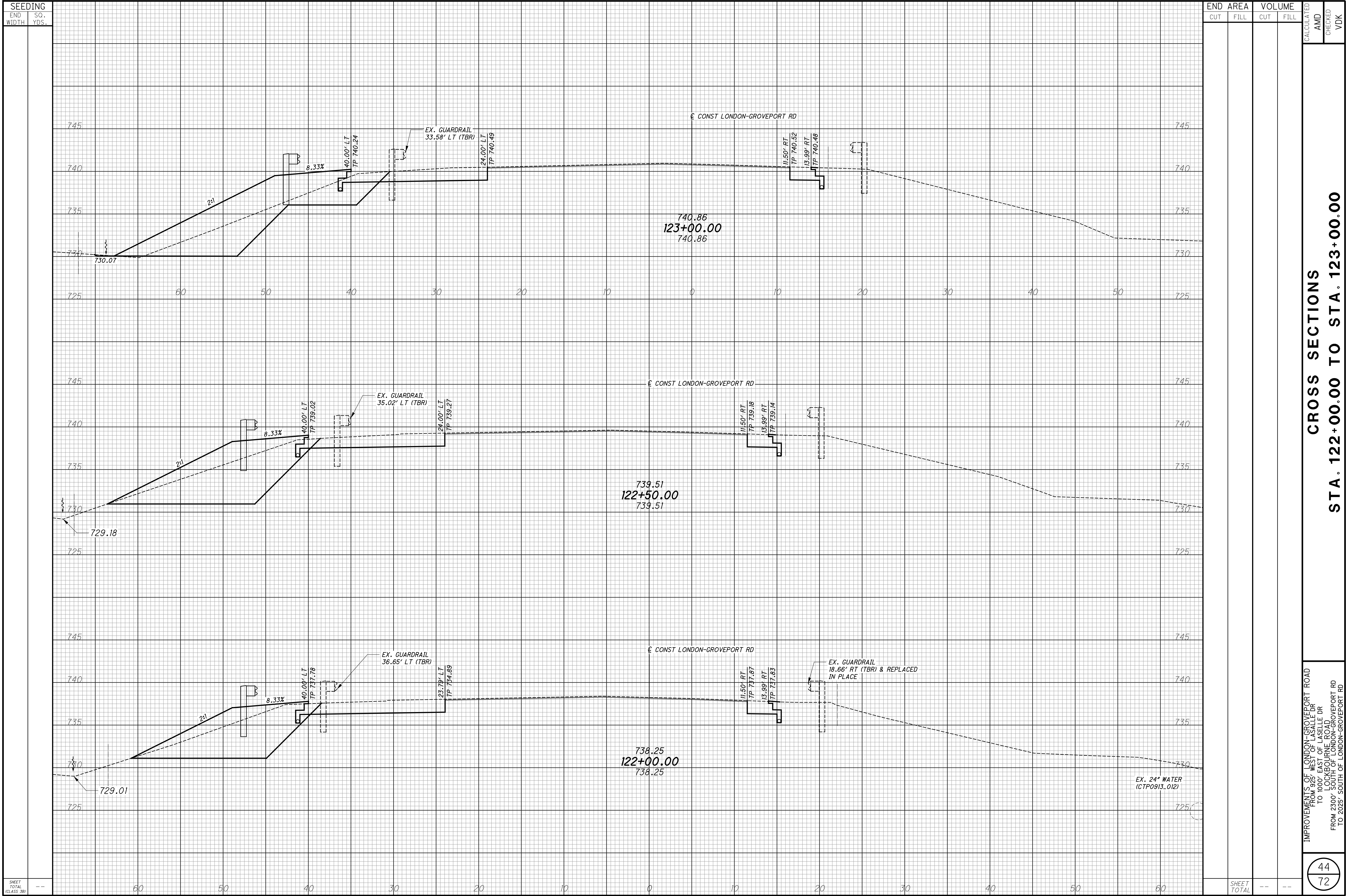


CROSS SECTIONS
STA. 117+50.00 TO STA. 118+50.00



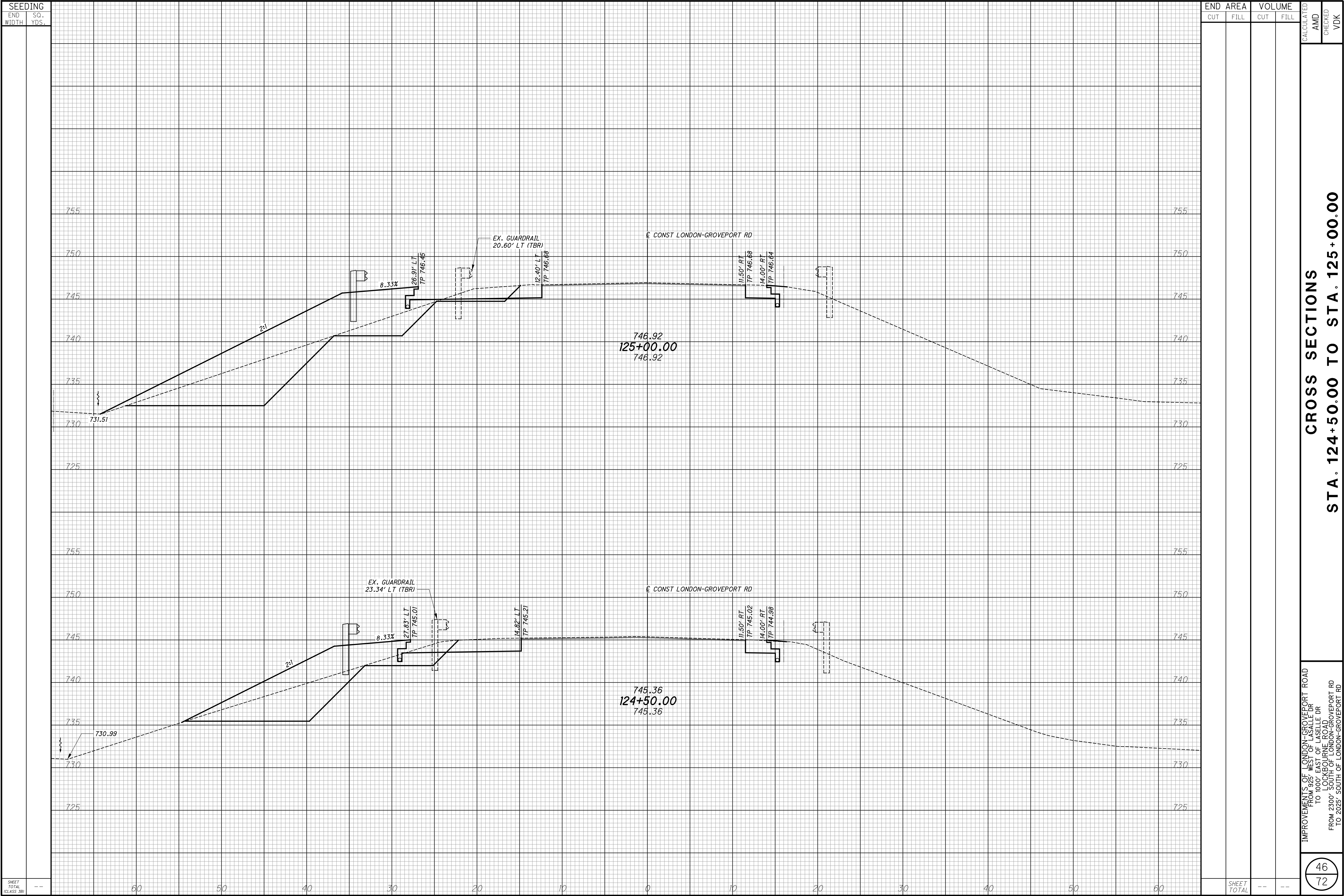
CROSS SECTIONS
STA. 119+00.00 TO STA. 120+00.00

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CROSS SECTIONS
STA. 122+00.00 TO STA. 123+00.00

IMPROVEMENTS OF LONDON-GROVEPORT ROAD
FROM 900' WEST OF LASELLE DR
TO 1000' EAST OF LASELLE DR
LOCKBOURNE ROAD
FROM 2300' SOUTH OF LONDON-GROVEPORT RD
TO 2025' SOUTH OF LONDON-GROVEPORT RD



SEEDING
END SQ.
WIDTH YDS.

CROSS SECTIONS
STA. 126+50.00 TO STA. 127+00.00

IMPROVEMENTS OF LONDON-GROVEPORT ROAD
FROM 925' WEST OF LASELLE DR
TO 1000' EAST OF LASELLE DR
LOCKBOURNE ROAD
FROM 2300' SOUTH OF LONDON-GROVEPORT RD
TO 2025' SOUTH OF LONDON-GROVEPORT RD

END AREA
CUT FILL

VOLUME
CUT FILL

CALCULATED
AMD

CHECKED
VDK

SHEET TOTAL
(CLASS 3B)

SHEET TOTAL
--

70 60 50 40 30 20 10 0 10 20 30 40 50

760 755 750 745 740 735 730

760 755 750 745 740 735 730

731.87

731.85

2:1

8.33%

23.12' LT TP 752.60

24.07' LT TP 750.89

10.87' LT TP 742.69

11.09' LT TP 751.08

EX. GUARDRAIL 19.90' LT (TBR)

EX. GUARDRAIL 19.91' LT (TBR)

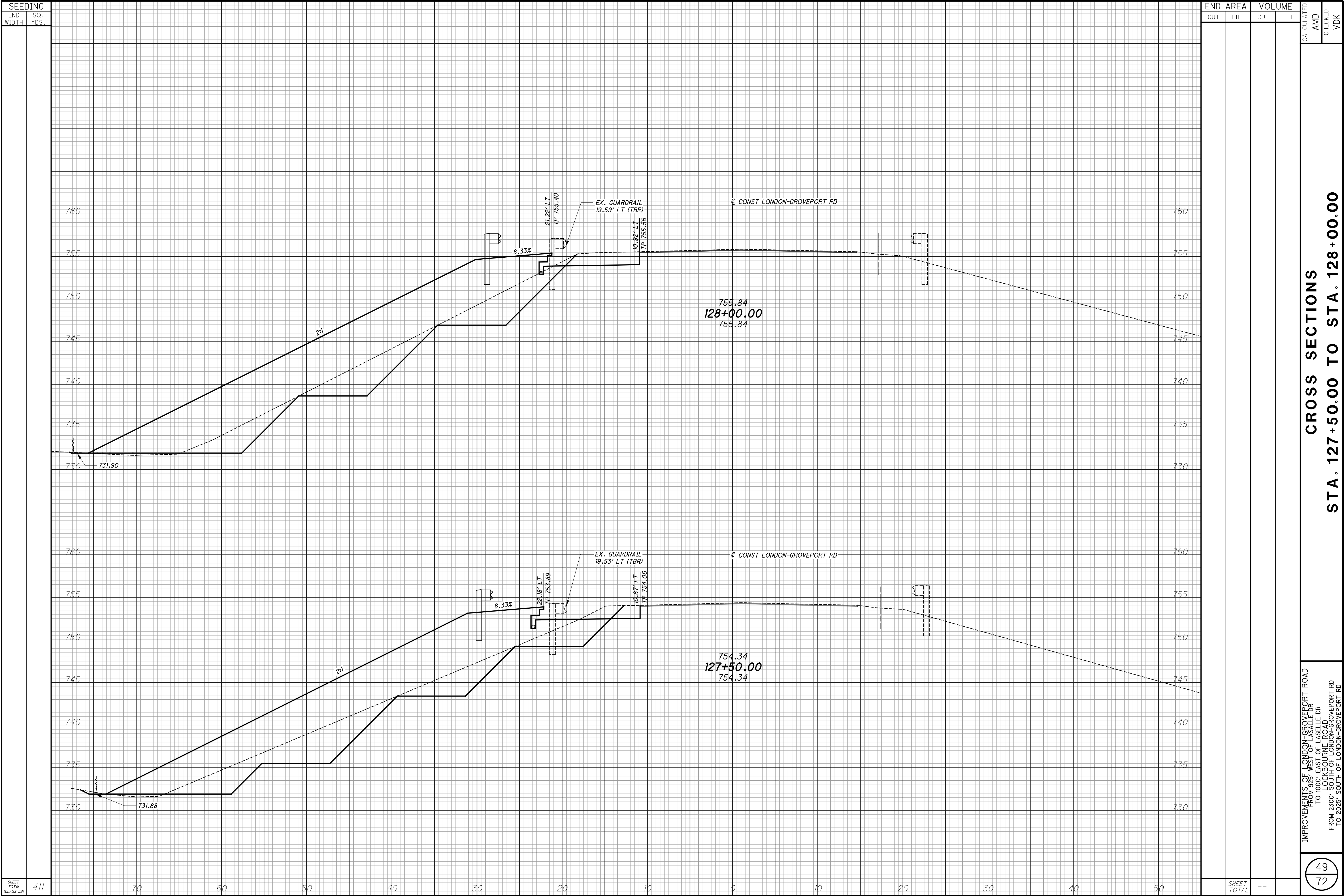
CONST LONDON-GROVEPORT RD

752.82 127+00.00 752.82

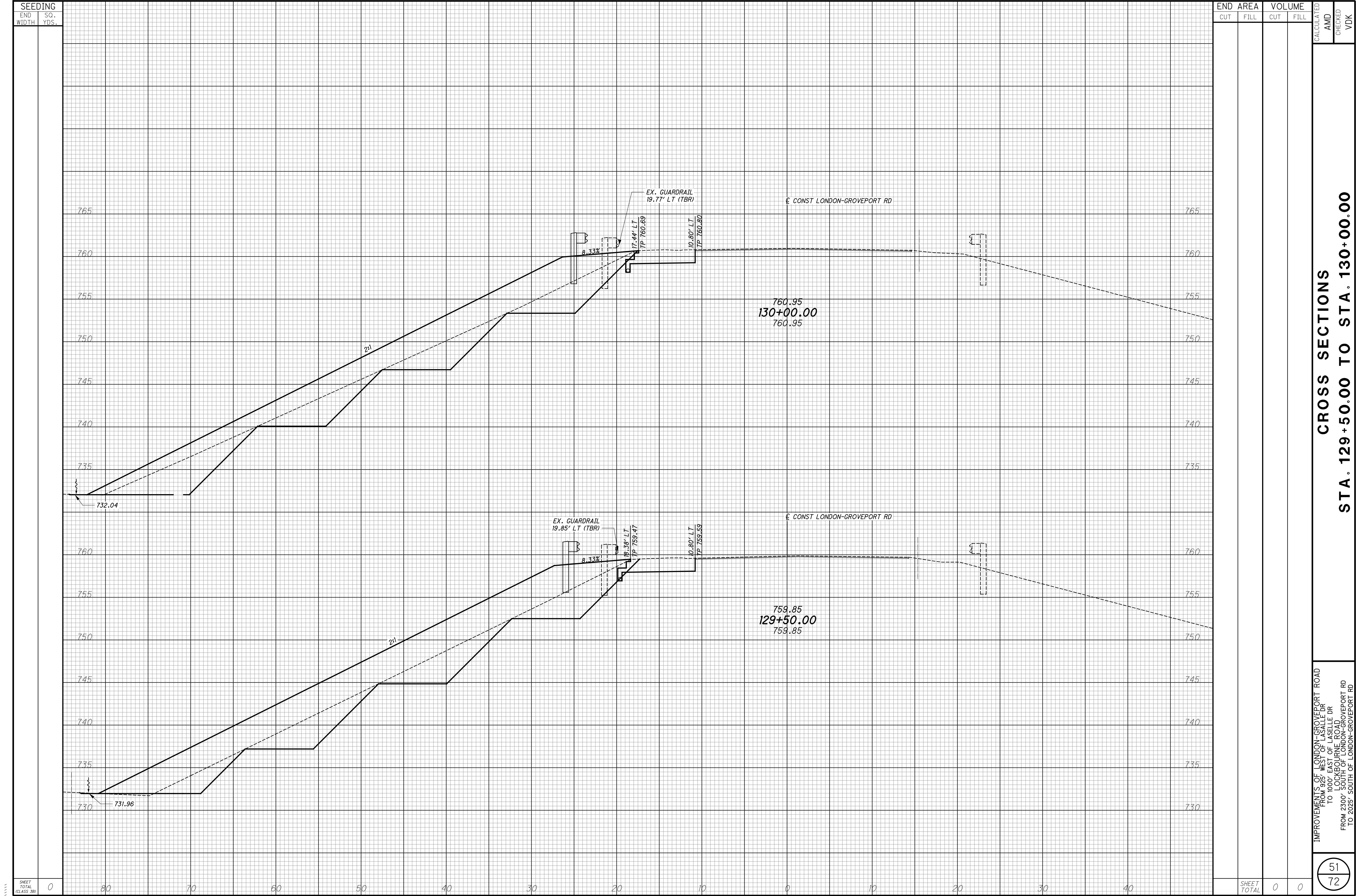
751.30 126+50.00 751.30

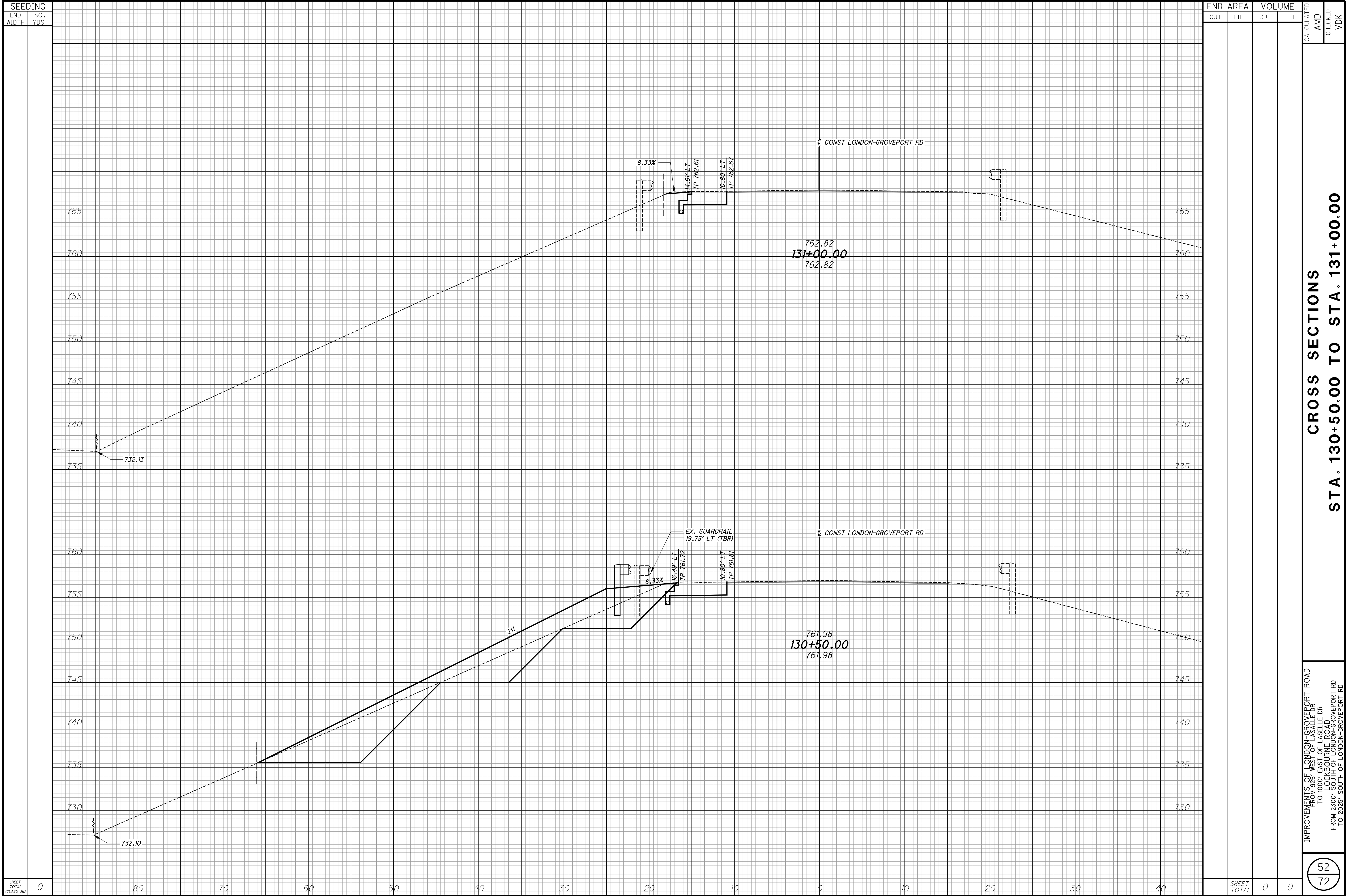
48

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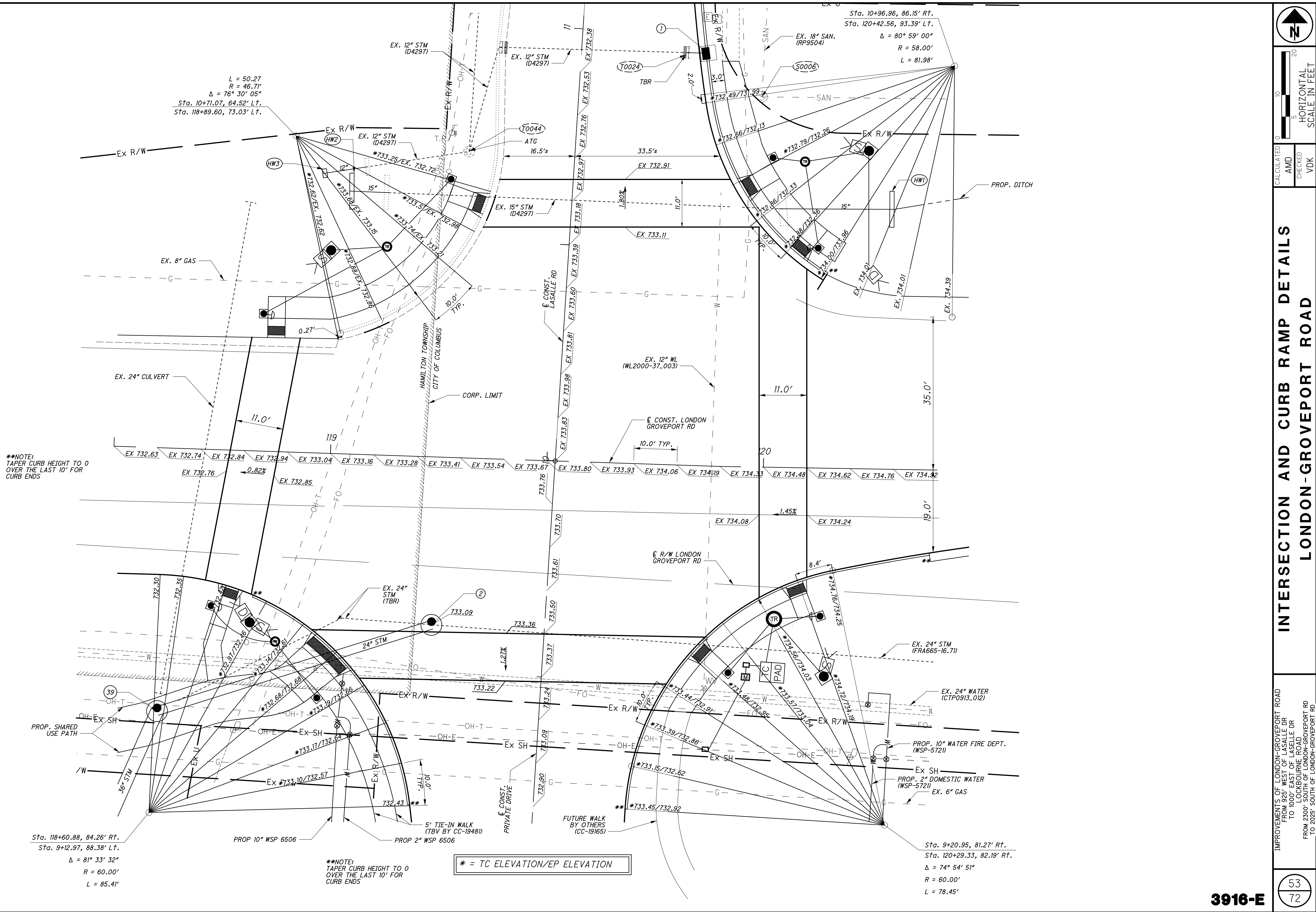


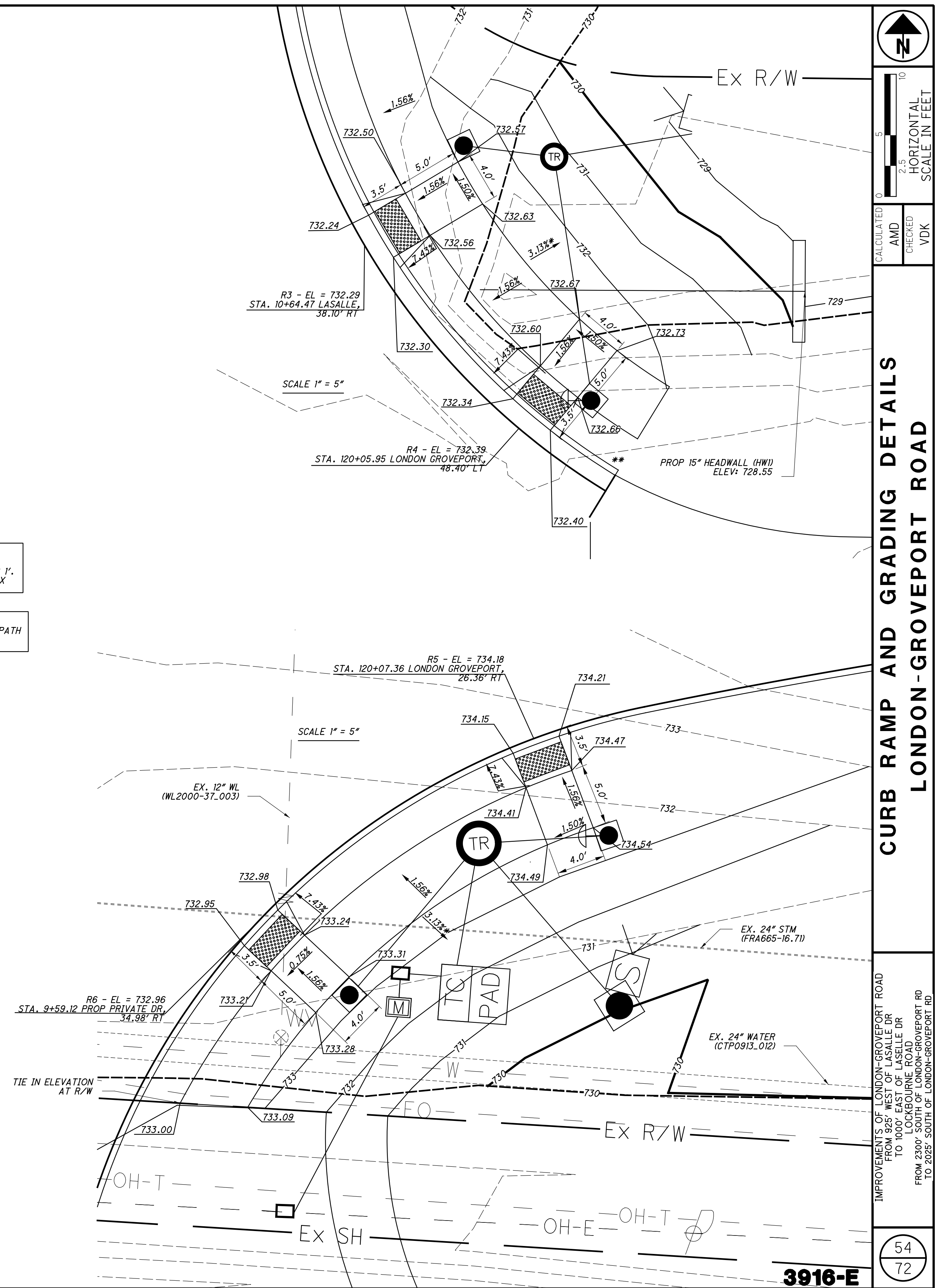
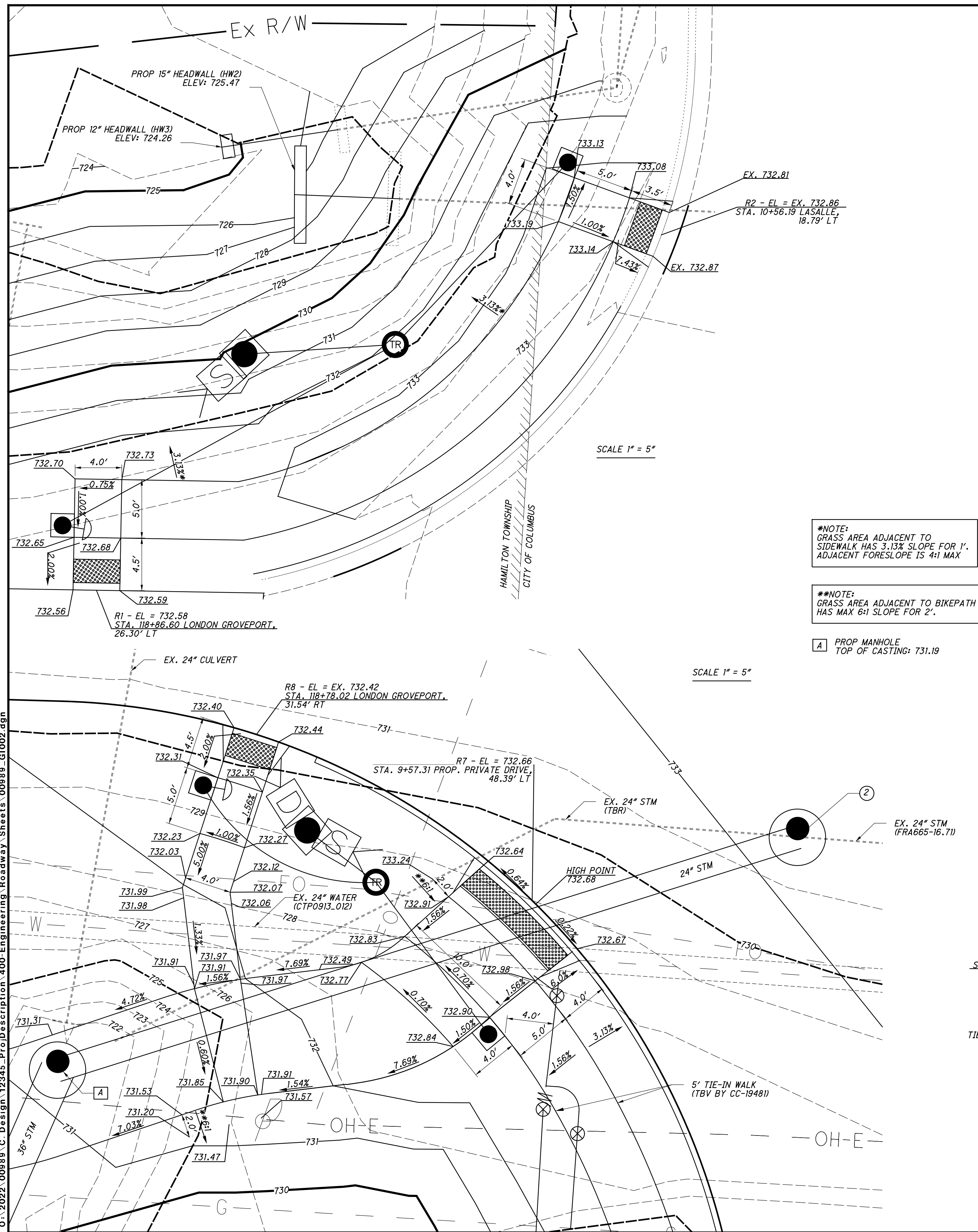
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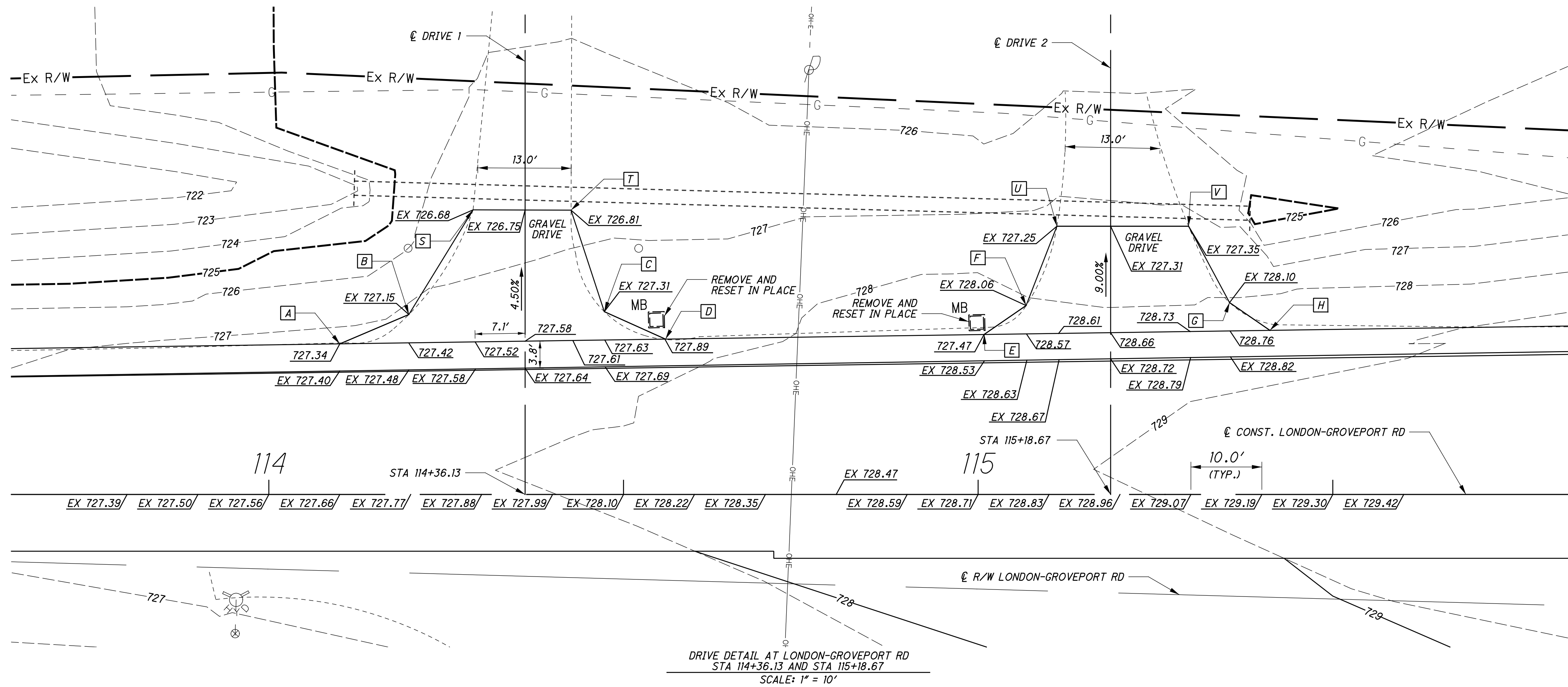


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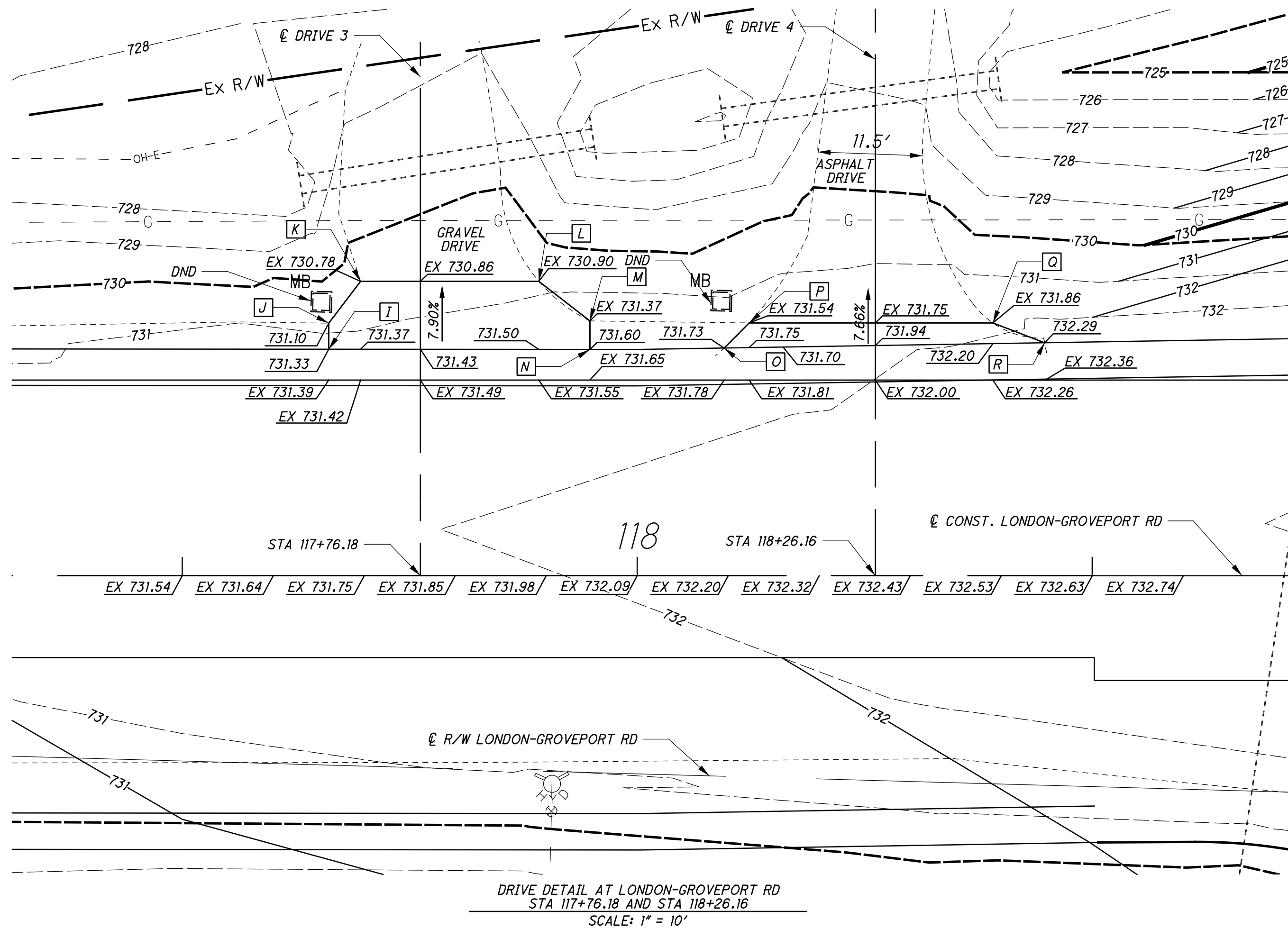




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- [A] STA 114+10.00, OFFS. 21.22' LT
- [B] STA 114+19.73, OFFS. 25.36' LT
- [C] STA 114+47.29, OFFS. 25.76' LT
- [D] STA 114+55.92, OFFS. 21.89' LT
- [E] STA 115+00.83, OFFS. 22.54' LT
- [F] STA 115+06.77, OFFS. 26.63' LT
- [G] STA 115+35.45, OFFS. 27.04' LT
- [H] STA 115+41.14, OFFS. 23.13' LT
- [S] STA 114+28.78, OFFS. 40.12' LT
- [T] STA 114+42.60, OFFS. 40.07' LT
- [U] STA 115+11.11, OFFS. 37.81' LT
- [V] STA 115+29.66, OFFS. 37.81' LT

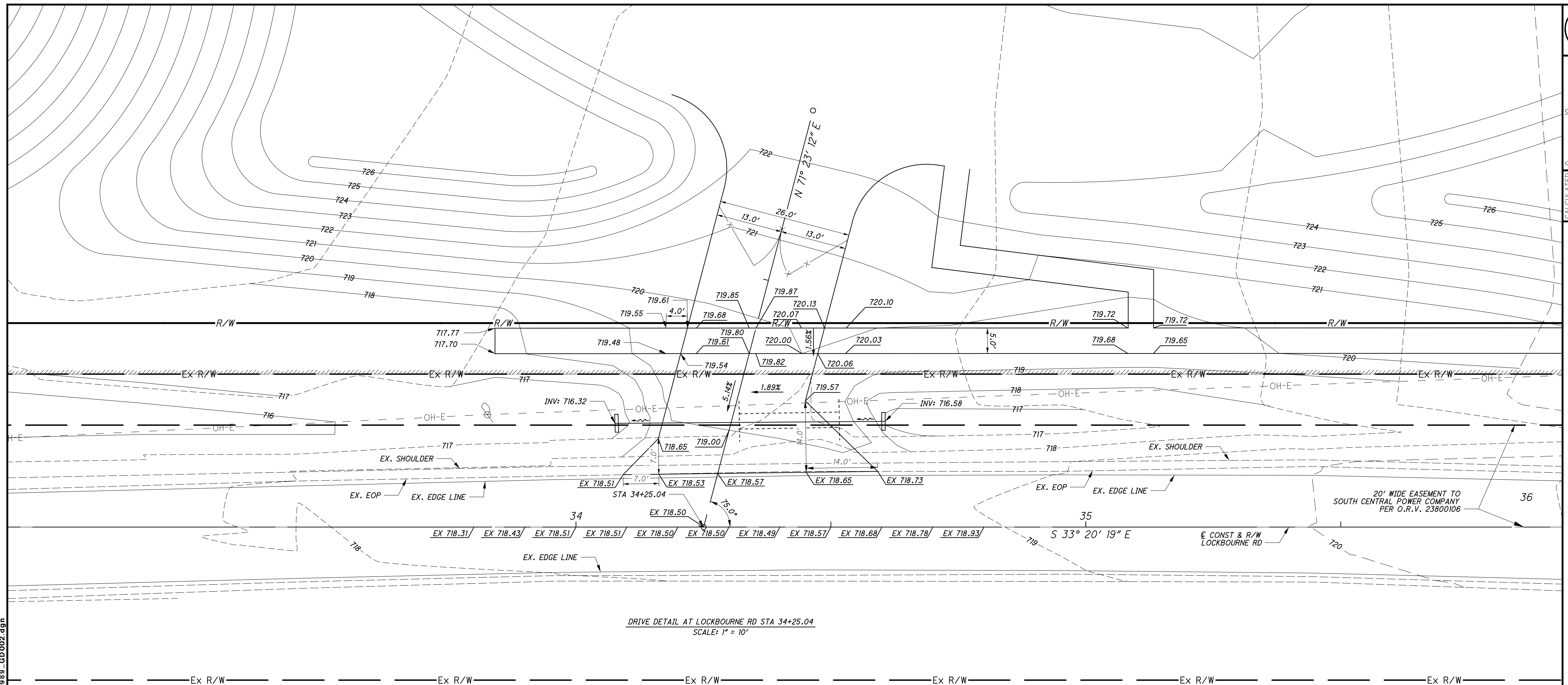


- [I] STA 117+66.10, OFFS. 24.89' LT
- [J] STA 117+66.10, OFFS. 27.75' LT
- [K] STA 117+69.60, OFFS. 32.35' LT
- [L] STA 117+89.19, OFFS. 32.35' LT
- [M] STA 117+94.80, OFFS. 28.00' LT
- [N] STA 117+94.80, OFFS. 24.86' LT
- [O] STA 118+09.55, OFFS. 25.02' LT
- [P] STA 118+12.31, OFFS. 27.78' LT
- [Q] STA 118+39.08, OFFS. 27.78' LT
- [R] STA 118+44.77, OFFS. 25.60' LT

PAVEMENT BUILD-UPS

GRAVEL DRIVES:
ITEM 304 - 8" AGGREGATE

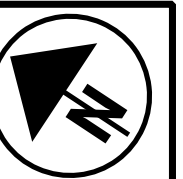
ASPHALT DRIVES:
ITEM 442 - 2" ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (448)
ITEM 442 - 2.25" ASPHALT CONCRETE INTERMEDIATE COURSE, 19MM, TYPE A (448)
ITEM 407 - TRACKLESS TACK COAT
ITEM 301 - 9" ASPHALT CONCRETE BASE
ITEM 304 - 8" AGGREGATE BASE



LP - LOW POINT

LOCKBOURNE RD DRIVE BUILD-UP

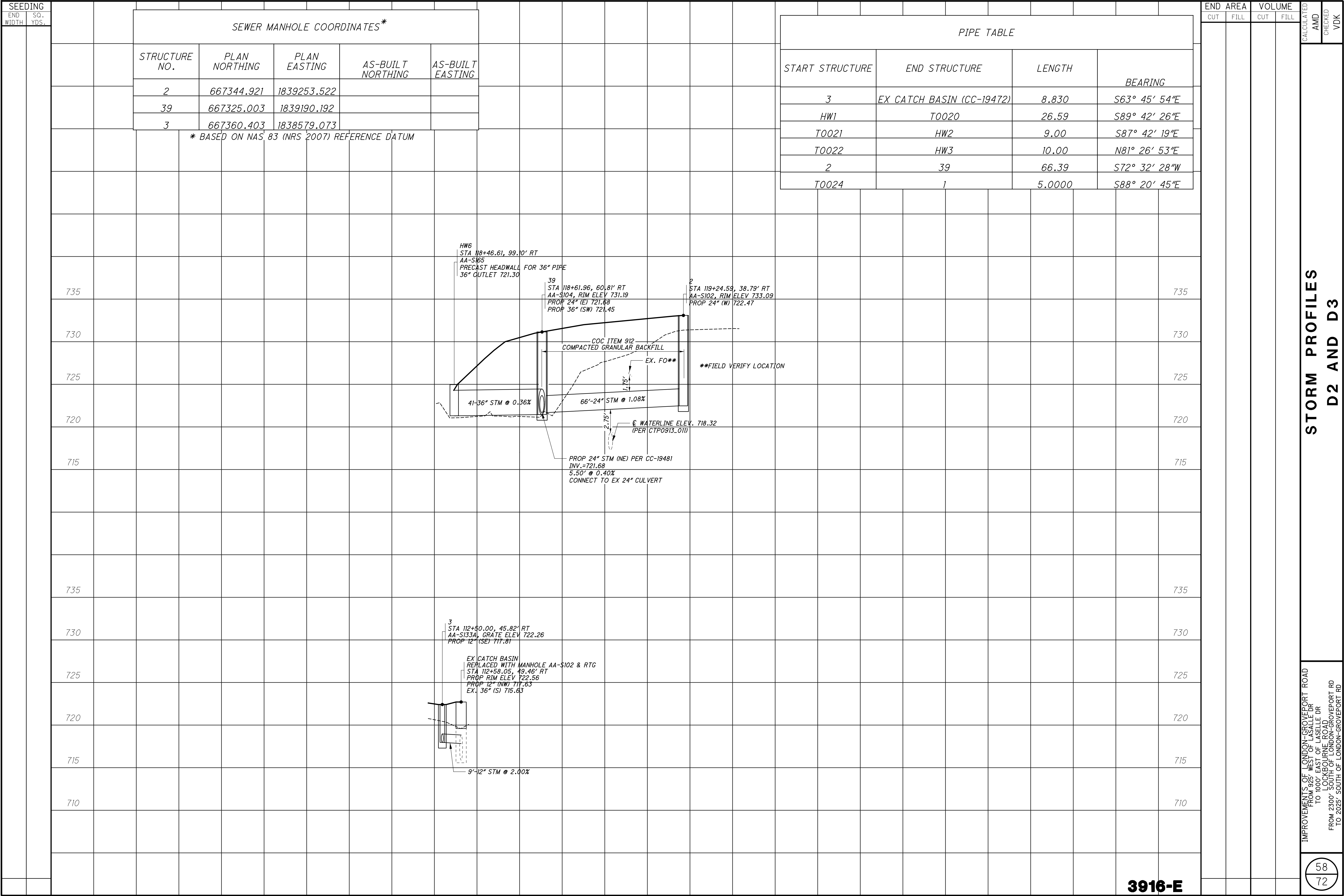
ITEM 441 - 1.5" ASPHALT CONCRETE, SURFACE COURSE, (TYPE 1), PG64-22M
ITEM 441 - 2" ASPHALT CONCRETE, INTERMEDIATE COURSE, (TYPE 2)
ITEM 301 - 4.5" ASPHALT CONCRETE BASE
ITEM 304 - 4" AGGREGATE BASE



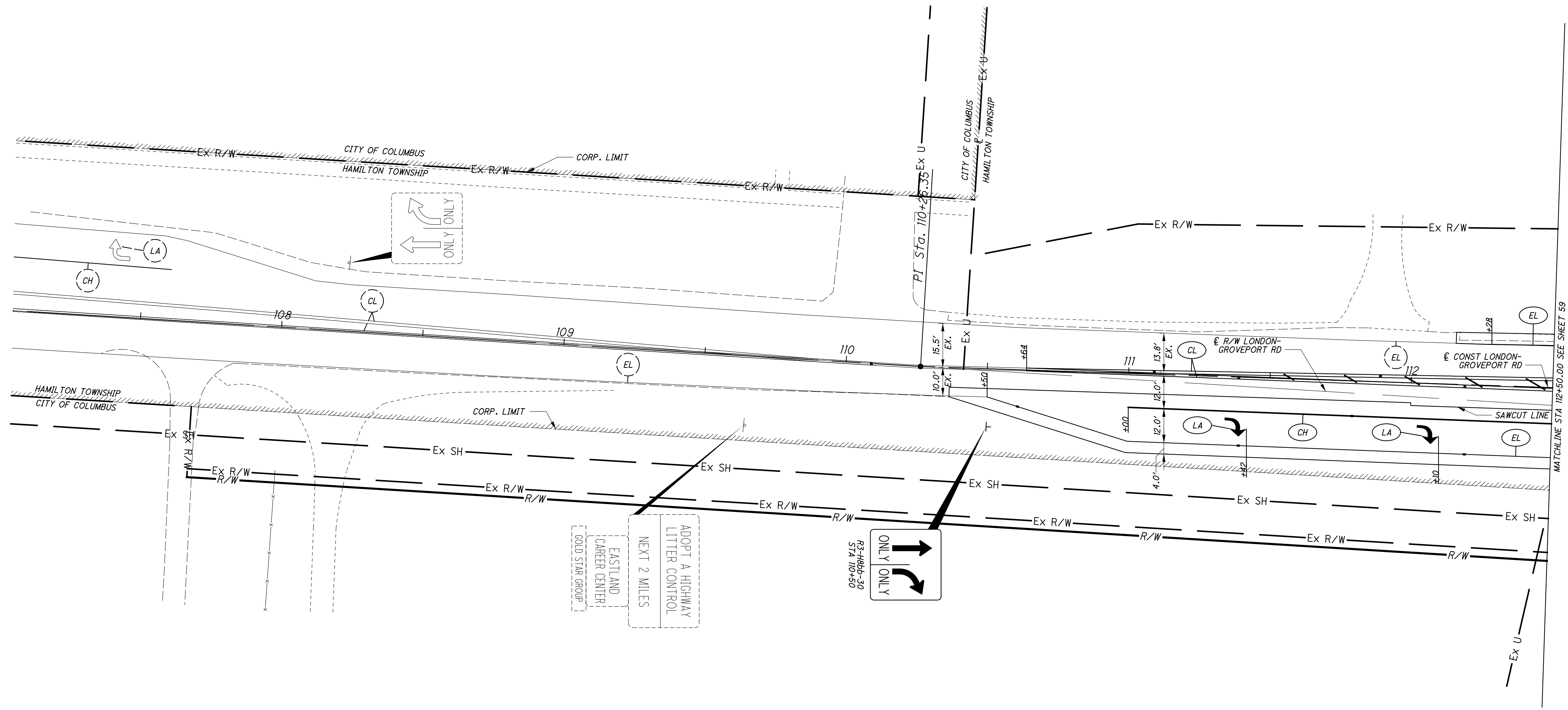
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VDK

DRIVE DETAILS
LOCKBOURNE RD

IMPROVEMENTS OF LONDON-GROVEPORT ROAD
FROM 925' WEST OF LASALLE DR
TO 1000' EAST OF LASELLE DR
LOCKBOURNE ROAD
FROM 2300' SOUTH OF LONDON-GROVEPORT RD
TO 2025' SOUTH OF LONDON-GROVEPORT RD

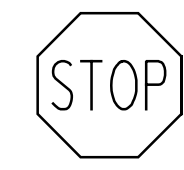


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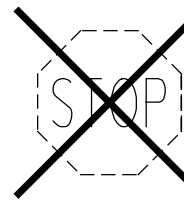


LINE SPECIFICATIONS

- EL - EDGE LINE, 5" WHITE
LL - LANE LINE, 5" WHITE
CL - CENTER LINE, 5" DOUBLE SOLID
CH - CHANNELIZING LINE, 10"
SL - STOP LINE, 20" WHITE
XW - CROSSWALK LINE, 10" WHITE
TY - TRANSVERSE LINE, 20" YELLOW
*ALL PAVEMENT MARKING REMOVALS ARE TO BE DONE BY WATERBLASTING, PER ITEM 642



PROPOSED SIGN



EX SIGN TO BE REMOVED AND DELIVERED



EX SIGN TO REMAIN

LEGEND

- | | | | |
|------|---|------|----------------------------|
| (CL) | CENTER LINE, DOUBLE SOLID | (XW) | CROSSWALK LINE |
| (SL) | STOP LINE | (EL) | EDGE LINE, WHITE |
| (CH) | CHANNELIZING LINE | (LA) | LANE ARROW |
| (TY) | TRANSVERSE/DIAGONAL LINE, YELLOW | (DL) | DASHED LINE |
| (CL) | EXISTING CENTER LINE | (EL) | EXISTING EDGE LINE |
| (TY) | EXISTING TRANSVERSE/DIAGONAL LINE, YELLOW | (CH) | EXISTING CHANNELIZING LINE |
| (LA) | EXISTING LANE ARROW | | |

RPM

****RPM NOTE:**
ALL CHANNELIZING LINES TWO-WAY WHITE/RED @ 20'
APPROACH WHITE EDGE LINE 12 ONE-WAY WHITE @ 20'
REMAINING WHITE EDGE LINE 9 ONE-WAY WHITE @ 40'
APPROACH CENTER LINE 12 TWO-WAY YELLOW @ 20'
REMAINING CENTER LINE 9 TWO-WAY YELLOW @ 40'

0

20

40

HORIZONTAL SCALE IN FEET

CALCULATED

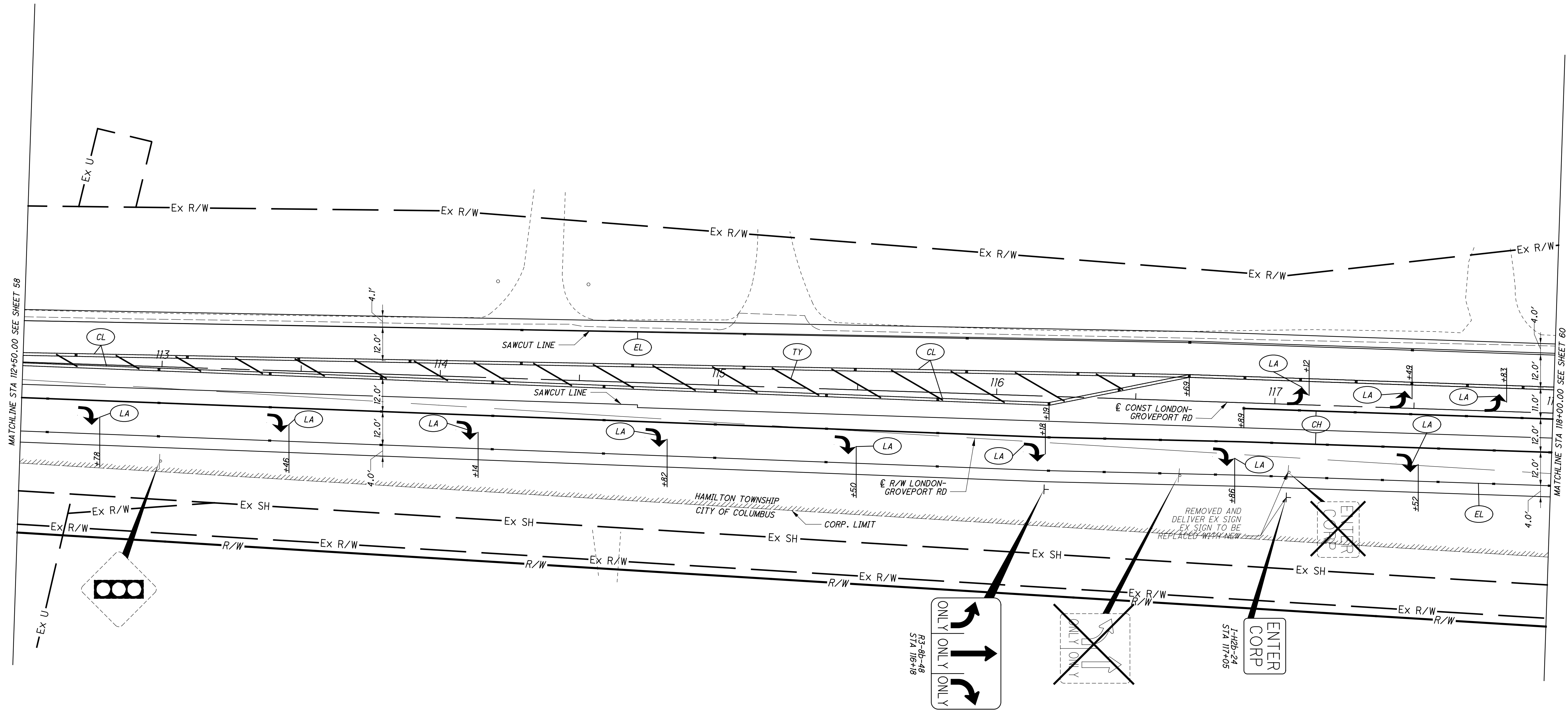
AMD

CHECKED

VDK

SIGNING AND PAVEMENT MARKING PLAN

IMPROVEMENTS OF LONDON-GROVEPORT ROAD FROM 862' EAST OF LITTLE DR TO 1000' EAST OF LOCKBOURNE ROAD
FROM 2300' SOUTH OF LONDON-GROVEPORT RD TO 2025' SOUTH OF LONDON-GROVEPORT RD

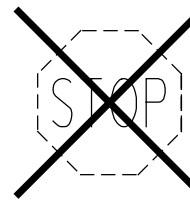


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PROPOSED SIGN



EX SIGN TO BE REMOVED AND DELIVERED



EX SIGN TO REMAIN

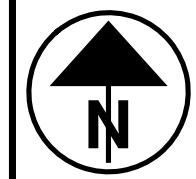
LEGEND

- CL CENTER LINE, DOUBLE SOLID
- SL STOP LINE
- CH CHANNELIZING LINE
- TY TRANSVERSE/DIAGONAL LINE, YELLOW
- CL EXISTING CENTER LINE
- TY EXISTING TRANSVERSE/DIAGONAL LINE, YELLOW
- LA EXISTING LANE ARROW

- XW CROSSWALK LINE
- EL EDGE LINE, WHITE
- LA LANE ARROW
- DL DASHED LINE
- EL EXISTING EDGE LINE
- CH EXISTING CHANNELIZING LINE

RPM

****RPM NOTE:**
ALL CHANNELIZING LINES TWO-WAY WHITE/RED @ 20'
APPROACH WHITE EDGE LINE 12 ONE-WAY WHITE @ 20'
REMAINING WHITE EDGE LINE 9 ONE-WAY WHITE @ 40'
APPROACH CENTER LINE 12 TWO-WAY YELLOW @ 20'
REMAINING CENTER LINE 9 TWO-WAY YELLOW @ 40'

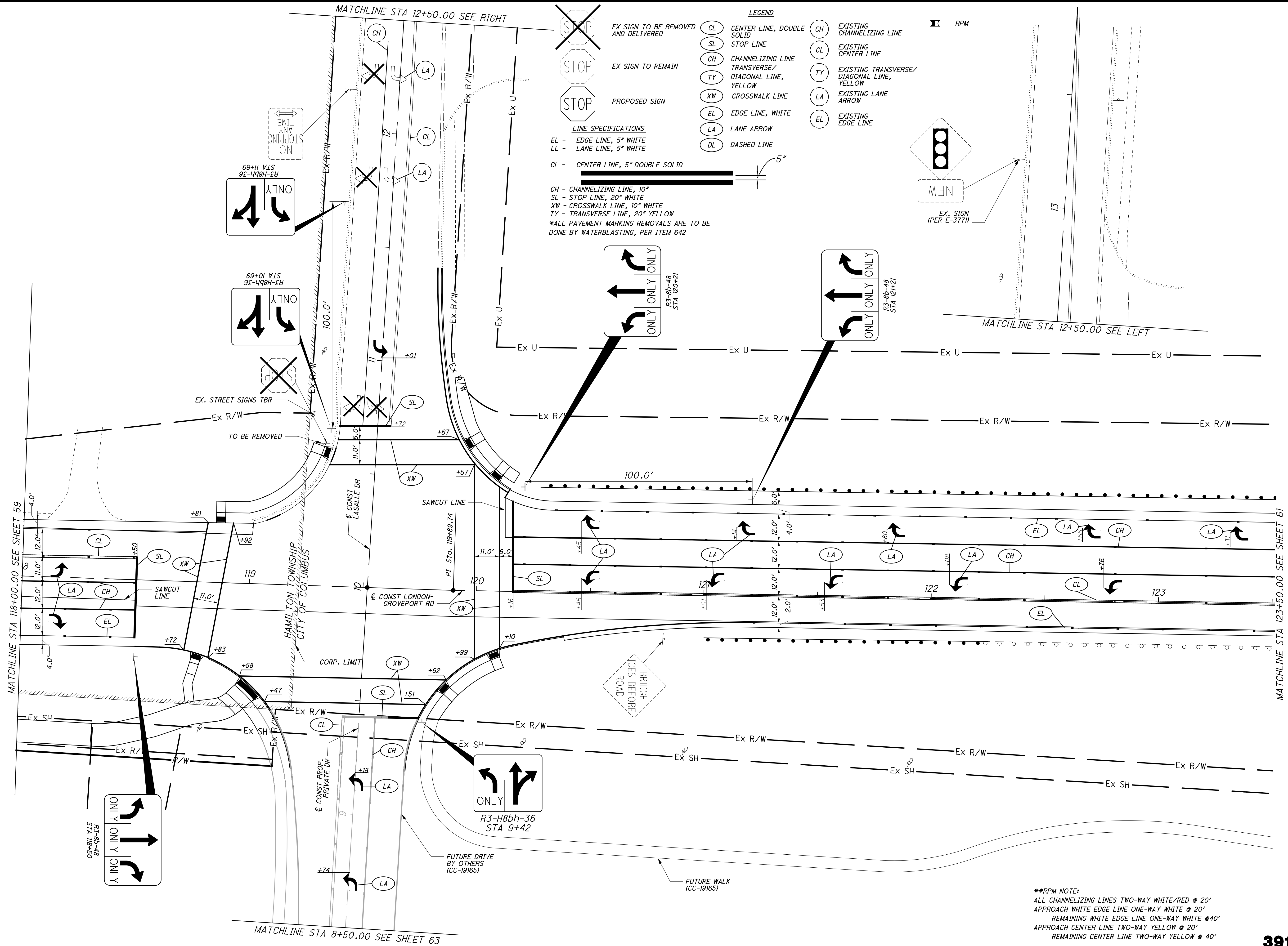


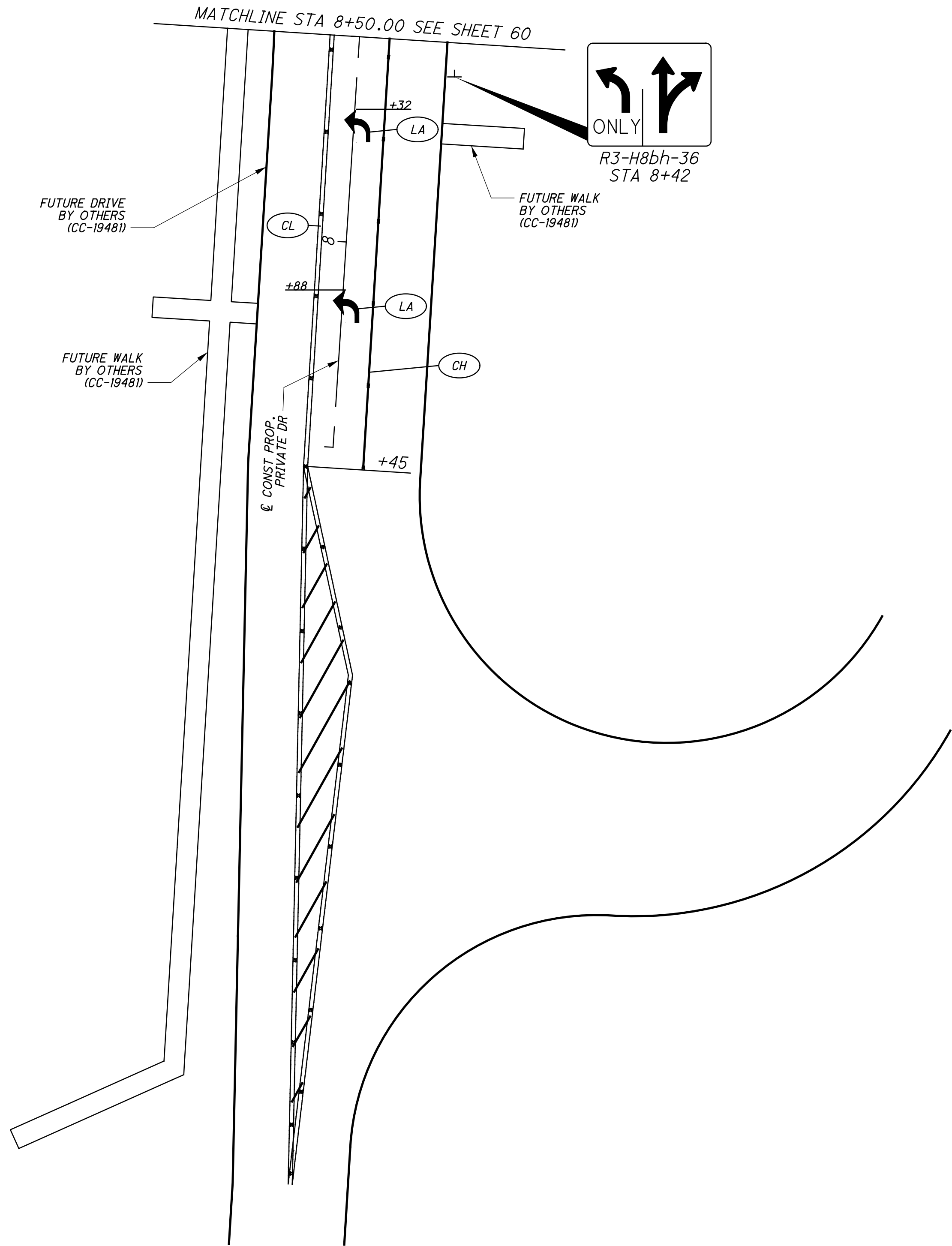
0 20 40
HORIZONTAL
SCALE IN FEET

CALCULATED
AMD
CHECKED
YDK

SIGNING AND PAVEMENT MARKING PLAN

IMPROVEMENTS OF LONDON-GROVEPORT ROAD
FROM 862' WEST OF LITTLE DR
TO 1000' EAST OF LITTLE DR
LOCKBOURNE ROAD
FROM 2300' SOUTH OF LONDON-GROVEPORT RD
TO 2025' SOUTH OF LONDON-GROVEPORT RD





LINE SPECIFICATIONS

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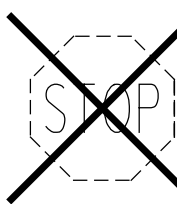
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PROPOSED SIGN



EX SIGN TO BE REMOVED
AND DELIVERED



EX SIGN TO REMAIN

LEGEND

CL CENTER LINE, DOUBLE SOLID

SL STOP LINE

CH CHANNELIZING LINE
TRANSVERSE/
DIAGONAL LINE,
YELLOW

CL EXISTING
CENTER LINE

TY EXISTING TRANSVERSE/
DIAGONAL LINE,
YELLOW

LA EXISTING LANE
ARROW

XW CROSSWALK LINE

EL EDGE LINE, WHITE

LA LANE ARROW

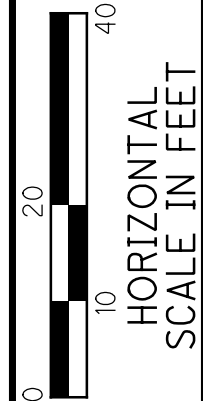
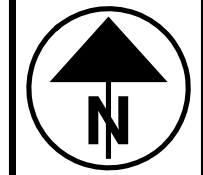
DL DASHED LINE

EL EXISTING
EDGE LINE

CH EXISTING
CHANNELIZING LINE

RPM

**RPM NOTE:
ALL CHANNELIZING LINES TWO-WAY WHITE/RED @ 20'
APPROACH WHITE EDGE LINE ONE-WAY WHITE @ 20'
REMAINING WHITE EDGE LINE ONE-WAY WHITE @ 40'
APPROACH CENTER LINE TWO-WAY YELLOW @ 20'
REMAINING CENTER LINE TWO-WAY YELLOW @ 40'



CALCULATED
AMD
CHECKED
VDK

SIGNING AND PAVEMENT MARKING PLAN

IMPROVEMENTS OF LONDON-GROVEPORT ROAD
FROM 862' EAST OF LITTLE DR
TO 1002' EAST OF LITTLE DR
LOCKBOURNE ROAD
FROM 2300' SOUTH OF LONDON-GROVEPORT RD
TO 2025' SOUTH OF LONDON-GROVEPORT RD

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GENERAL

THE DIVISION OF DESIGN AND CONSTRUCTION IS A SUBUNIT OF THE CITY OF COLUMBUS DEPARTMENT OF PUBLIC SERVICE AND IS OWNER OF PART OR ALL OF THE FACILITIES COVERED BY THESE PLANS.

ALL INCIDENTAL WORK ITEMS CALLED FOR IN THESE PLANS FOR WHICH NO SPECIFIC METHOD OF PAYMENT IS PROVIDED SHALL BE PERFORMED BY THE CONTRACTOR AND THE TOTAL COST OF SAID ITEMS SHALL BE INCLUDED IN THE PRICE OF ITS ASSOCIATED BID ITEM.

PLAN SPECIFICATION COMPLIANCE

THE CONTRACTOR SHALL FURNISH AND INSTALL TRAFFIC SIGNAL DEVICES IN COMPLIANCE WITH THESE PLANS AND SPECIFICATIONS, THE 2018 CITY OF COLUMBUS CONSTRUCTION AND MATERIAL SPECIFICATIONS AND ITS SUPPLEMENTAL SPECIFICATIONS, OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS, AND THE STANDARD CONSTRUCTION DRAWINGS ISSUED BY THE CITY OF COLUMBUS. THE CITY OF COLUMBUS, SHALL DETERMINE WHETHER THE SUPPLIED ITEMS MEET OR EXCEED THESE SPECIFICATIONS.

TRAFFIC SIGNAL CONTROL EQUIPMENT SHALL MEET OR EXCEED THE STANDARDS SPECIFIED IN THE FOLLOWING DOCUMENTS:

- (A) SPECIFICATIONS LISTED IN THIS PLAN;
- (B) APPLICABLE SECTIONS OF NEMA STANDARDS PUBLICATION NO. TS2-1998 AND/OR TS1 1989;
- (C) 2018 CITY OF COLUMBUS CONSTRUCTION AND MATERIAL SPECIFICATIONS 625, 632, 633, 725, 732 & 733;
- (D) CITY OF COLUMBUS STANDARD CONSTRUCTION DRAWINGS

IN CASE OF A CONFLICTING SPECIFICATION STATEMENT, THE SPECIFICATION DOCUMENT HIERARCHY SHALL BE IN THE ORDER LISTED FROM (A) HIGHEST, TO (D) LOWEST.

MAINTENANCE OF TRAFFIC SIGNAL INSTALLATIONS

A) PROPOSED TRAFFIC SIGNAL INSTALLATION

THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL PROPOSED TRAFFIC SIGNAL DEVICES UNDER THE FOLLOWING CONDITIONS FROM THE TIME OF INSTALLATION UNTIL THE DEVICE HAS BEEN ACCEPTED BY THE CITY.

THE CONTRACTOR SHALL PROVIDE 2 OR MORE CONTACTS WHO CAN RECEIVE ALL DEVICE OUT-OF-SERVICE CALLS THAT FALL UNDER THE CONTRACTOR'S RESPONSIBILITY. THE CONTRACTOR SHALL DISPATCH MAINTENANCE PERSONNEL TO CORRECT THE PROBLEM. THE CONTRACTOR SHALL PROVIDE THE CITY AND THE PROJECT ENGINEER WITH ADDRESSES AND PHONE NUMBERS OF THESE CONTACTS. MAINTENANCE PERSONNEL MAY BE USED TO PERFORM OTHER DUTIES AS LONG AS PROMPT ATTENTION IS GIVEN TO THESE CALLS AND A PERSON IS CONTINUOUSLY AVAILABLE 24 HOURS A DAY AND 7 DAYS A WEEK. THE CONTRACTOR SHALL PROVIDE MAINTENANCE SERVICE ENTIRELY WITH HIS PERSONNEL.

THE CONTRACTOR SHALL CORRECT ALL BULB OUTAGES, DEVICE MALFUNCTIONS OF ANY TYPE, INTERNAL CABINET POWER LOSSES, SPAN OR CABLE PROBLEMS AND MISALIGNED OR DAMAGED VEHICULAR OR PEDESTRIAN SIGNAL HEADS WITHIN 2 HOURS AFTER THE CONTRACTOR'S CONTACT PERSON HAS BEEN NOTIFIED OF ANY ONE OF THE ABOVE. IN THE EVENT A NEW SIGNAL DEVICE IS DAMAGED PRIOR TO ACCEPTANCE, THE DAMAGED DEVICE, EXCEPT POLES, SHALL BE REPLACED OR REPAIRED BY THE CONTRACTOR TO THE SATISFACTION OF THE CITY. ANY DAMAGED CABINET ASSEMBLY DEVICE IF REPAIRED SHALL BE TESTED ONCE AGAIN BY THE CITY BEFORE THE DEVICE CAN BE INSTALLED.

IN THE EVENT OF A LOSS OF POWER TO THE SIGNAL INDICATIONS OTHER THAN AN ELECTRIC COMPANY GENERAL POWER OUTAGE, THE CONTRACTOR, AT HIS EXPENSE, SHALL IMMEDIATELY TAKE ACTION (WITHIN 30 MINUTES) TO PROPERLY ERECT TEMPORARY STOP SIGN(S) AND PROVIDE POLICE OFFICER(S) TO DIRECT TRAFFIC UNTIL THE SIGNAL IS BACK ON "FLASH" OR OPERATING PROPERLY.

IF A TRAFFIC STRAIN, SUPPORT OR PEDESTAL POLE IS DAMAGED AND THAT DAMAGE CAUSES POLE INSTABILITY, THEN THE CONTRACTOR SHALL TAKE IMMEDIATE ACTION (WITHIN 2 HOURS) TO STABILIZE IT. THE CONTRACTOR SHALL STILL BE RESPONSIBLE FOR PROVIDING THE PROJECT WITH A NEW UNDAMAGED POLE.

WHERE OUT-OF-SERVICE CALLS ARE THE DIRECT RESULT OF A VEHICULAR ACCIDENT, THE RESPONSE OF THE CONTRACTOR SHALL BE AS OUTLINED ABOVE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COLLECTION OF ANY COMPENSATION FROM THOSE PARTIES RESPONSIBLE FOR THE DAMAGE TO THE CONTRACTOR'S MATERIALS.

WHERE THE CONTRACTOR HAS FAILED TO RESPOND OR CANNOT RESPOND TO AN OUT-OF-SERVICE CALL WITHIN THE TIME PERIOD SPECIFIED ABOVE AT LOCATIONS UNDER HIS RESPONSIBILITY, THE CITY MAY TAKE ACTION AS IT DEEMS NECESSARY TO CORRECT THE SITUATION. THIS ACTION MAY INCLUDE CONTROLLING THE INTERSECTION USING COLUMBUS POLICE OFFICERS, COMPLETELY REMOVING OR REPLACING ANY MALFUNCTIONING TRAFFIC CONTROL DEVICE, AND/OR INSTALLING ANY DEVICE(S) REQUIRED TO RETURN THE INTERSECTION TO REGULAR SIGNAL OPERATION. ALL COSTS ASSOCIATED WITH THESE ACTIONS SHALL BE BILLED DIRECTLY TO THE CONTRACTOR AND NOT INCLUDED IN ITEM 614 MAINTAINING TRAFFIC, AS PER PLAN.

ANY NON-OPERATING VEHICULAR OR PEDESTRIAN SIGNAL HEAD OR PUSHBUTTON SHALL BE COVERED AS REFERENCED IN THESE PLANS. ALL SIGNAL HEADS WHILE COVERED, SHALL BE DARK BY DISCONNECTING POWER TO THE SIGNAL INDICATIONS. NO COVERED HEAD SHALL BLOCK THE VIEW OF AN OPERATING HEAD. A MINIMUM OF 2' VEHICULAR SIGNAL HEADS PER TRAVELLED DIRECTION (SPACED 8 FT. APART MINIMUM AND 12' FT. MAXIMUM) SHALL BE OPERATING AT ALL TIMES.

GROUNDING AND BONDING

REQUIREMENTS OF THE CURRENT EDITION OF THE CMSC AND THE CITY OF COLUMBUS STANDARD CONSTRUCTION DRAWINGS ARE MODIFIED AS FOLLOWS:

- 1. ALL NON-CURRENT CARRYING METALLIC PARTS CONTAINING

ELECTRICAL CONDUCTORS SHALL BE PERMANENTLY JOINED TO FORM AN EFFECTIVE GROUND FAULT CURRENT PATH BACK TO THE GROUNDING CONDUCTOR AT THE TRAFFIC SIGNAL CONTROLLER CABINET OR POWER METER CABINET, AS NOTED BELOW.

PROVIDE AN EQUIPMENT GROUNDING CONDUCTOR IN METALLIC CONDUITS (725.04)/POLYVINYL CHLORIDE CONDUITS (725.051) AND POLYETHYLENE CONDUITS (725.052) IN ADDITION TO THE CONDUCTORS SPECIFIED.

METAL PULL BOX FRAMES SHALL BE BONDED BY ATTACHMENT OF THE EQUIPMENT GROUNDING CONDUCTOR TO THE FRAME AS ILLUSTRATED ON SCD 4021 THROUGH 4023.

IF MULTIPLE CONDUIT RUNS BEGIN AND END AT THE SAME POINTS, EQUIPMENT GROUNDING CONDUCTORS SHALL BE PROVIDED AS SHOWN IN THE DETAILS.

THE MESSENGER WIRE AT SIGNALIZED INTERSECTIONS SHALL BE USED AS THE CONDUCTIVE PATH FROM CORNER TO CORNER IF CONDUIT IS NOT PROVIDED UNDER THE ROADWAY. WHEN CONDUIT CONNECTS THE CORNERS OF AN INTERSECTION, AN EQUIPMENT GROUNDING CONDUCTOR SHALL BE USED IN THE CONDUIT UNLESS OTHERWISE DIRECTED BY THE CITY.

- 2. CONDUITS.

THE 725.04 CONDUIT SHALL HAVE HEAVY DUTY GROUNDING BUSHINGS INSTALLED AT ALL TERMINATION POINTS. THE BUSHING MATERIAL SHALL BE COMPATIBLE WITH GALVANIZED STEEL CONDUIT AND THE GROUNDING LUG MATERIAL SHALL BE COMPATIBLE FOR USE WITH COPPER WIRE. THREADED OR COMPRESSION TYPE BUSHINGS MAY BE USED.

THE 725.05 CONDUIT SHALL HAVE THE INSIDE AND OUTSIDE DIAMETERS OF THE CONDUIT DEBURRED AT ALL TERMINATION POINTS. BOTH ENDS OF METALLIC CONDUIT SHALL BE BONDED TO THE EQUIPMENT GROUNDING CONDUCTOR.

- 3. WIRE FOR GROUNDING AND BONDING.

USE INSULATED COPPER WIRE FOR THE EQUIPMENT GROUNDING CONDUCTOR. BONDING JUMPERS IN BOXES AND ENCLOSURES MAY BE BARE OR INSULATED COPPER WIRE. WIRE SHALL BE AS FOLLOWS:

USE 4 AWG BETWEEN THE POWER SERVICE AND SUPPORTS, POLES, PEDESTALS, CONTROLLER OR FLASHER CABINETS. THE INSULATION SHALL BE GREEN WITH TWO (2) YELLOW STRIPES (TRACERS).

SPICES IN THE GROUNDING AND BONDING CABLE SHALL NOT BE PERMITTED IN PULL BOXES.

- 4. GROUND ROD.

THE TYPICAL GROUNDING CONDUCTOR (GROUND WIRE) SHALL BE 4 AWG INSULATED COPPER.

- 5. POWER SERVICE.

FOR LOCATIONS WITH A POWER METER CABINET:

- A. AT THE POWER METER CABINET, THE GROUNDING ELECTRODE CONDUCTOR (GROUND WIRE) FROM THE BREAKER BOX NEUTRAL (AC-) BAR TO THE GROUND ROD SHALL BE A CONTINUOUS UN-SPliced CONDUCTOR.
- B. THE SERVICE NEUTRAL (AC-) SHALL ONLY BE CONNECTED TO GROUND AT THE MAIN POWER SERVICE IN THE POWER METER CABINET.
- C. POWER SERVICE DISCONNECT SWITCHES ARE NOT USED BETWEEN THE SECONDARY SIDE OF THE TRANSFORMER SUPPLYING POWER SERVICE AND THE CONTROLLER CABINET.
- D. A POWER SERVICE MAIN CIRCUIT BREAKER IS USED IN THE METER CABINET AND THE CONTROLLER CABINET BETWEEN THE SECONDARY SIDE OF THE TRANSFORMER SUPPLYING POWER SERVICE AND THE CONTROLLER CABINET.

GROUNDING AND BONDING SHALL BE CONSIDERED INCIDENTAL TO ITEM 625, NO. 4 AWG, 600 VOLT DISTRIBUTION CABLE, AS PER PLAN. 3/1/18

ITEM 625 TRENCH, AS PER PLAN

IN ADDITION TO THE REQUIREMENTS OF 625.13, THE INSTALLATION DEPTH OF THE PROPOSED CONDUIT SHALL CORRELATE TO THE DEPTH OF THE PULL BOX STRUCTURE SERVICING THE CONDUIT RUN. CONDUIT ENTERING 18 INCH PULL BOXES SHALL BE 24 INCHES DEEP. CONDUIT ENTERING 27 INCH PULL BOXES SHALL BE 30 INCHES DEEP. CONDUIT ENTERING 32 INCH PULL BOXES SHALL BE 30 TO 36 INCHES DEEP. CONDUIT ENTERING 48 INCH PULL BOXES SHALL BE 39 INCHES DEEP. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO MODIFY THE DEPTH OF THE CONDUIT TO ACCOMMODATE THE VARIOUS TERMINATION DEPTHS AND UTILITY CONFLICTS. SHARP CHANGES IN CONDUIT ELEVATION WILL NOT BE PERMITTED. IF BOTH ENDS OF A CONDUIT RUN ENTER THE SAME SIZE STRUCTURE, THEN THE ENTIRE LENGTH OF CONDUIT SHALL BE PLACED AT THAT DEPTH. IF THE TWO ENDS ENTER DIFFERENT DEPTH STRUCTURES, THE CHANGE IN ELEVATION SHALL BE MADE OVER THE ENTIRE LENGTH OF THE CONDUIT RUN. TRENCH UNDER PROPOSED ROADWAYS SHALL HAVE A MINIMUM OVERALL DEPTH OF 36 INCHES AND OR A MINIMUM DEPTH OF 24 INCHES UNDER THE FINAL PAVEMENT SUBGRADE, WHICHEVER IS DEEPEST. INCIDENTAL TO THIS ITEM IS THE REPAIR OF SIDEWALK, ROADWAY, BRICK, CURB, CURB RAMPS, AND LANDSCAPING. 5/17/16

ITEM 630 SIGNING, MISC.: TRAFFIC SIGNAL SIGNS

WHEN USED, THE CONTRACTOR SHALL INSTALL W3-3-36 "SIGNAL AHEAD" SIGNS WITH W16-15P-24 "NEW" SUPPLEMENTAL PLACARDS AND POSTS IF REQUIRED JUST PRIOR TO THE SIGNAL BEING PLACED ON FLASH. THE "NEW SIGNAL" AND "SIGNAL AHEAD" SIGNS SHALL BE COVERED UNTIL THE SIGNAL IS PLACED ON REGULAR OPERATION AT WHICH TIME THE CONTRACTOR SHALL UNCOVER THEM.

WHEN USED, THE CONTRACTOR SHALL INSTALL THE W23-H2B-30 "SIGNAL OPERATION CHANGED" SIGN JUST PRIOR TO ACTIVATING THE CHANGE IN SIGNAL OPERATION. THE "SIGNAL OPERATION CHANGED" SIGN SHALL BE COVERED UNTIL THE SIGNAL OPERATION CHANGE IS IN EFFECT AT WHICH TIME THE CONTRACTOR SHALL UNCOVER IT. IN ORDER TO INSTALL THE "SIGNAL OPERATION CHANGED" SIGN AS SHOWN IN THE PLANS, THE CONTRACTOR SHALL SHIFT AN ADJACENT PERMANENT SIGN, WHEN NECESSARY, TO CREATE ENOUGH SPACE TO INSTALL THE "SIGNAL OPERATION CHANGED" SIGN IN THE LOCATION SHOWN IN THE PLANS.

THE CONTRACTOR SHALL REMOVE THESE ITEMS 3 WEEKS AFTER THEY ARE UNCOVERED. AT THE SAME TIME, THE CONTRACTOR SHALL RETURN ANY PERMANENT SIGN, WHICH HAS BEEN TEMPORARILY SHIFTED IN ORDER TO ACCOMMODATE THE "SIGNAL OPERATION CHANGED" SIGN, TO THE LOCATION SPECIFIED IN THE PLANS. FAILURE TO REMOVE THESE ITEMS AND RELOCATE PERMANENT SIGNS SHALL RESULT IN THE CITY REMOVING THEM, ALONG WITH RELOCATING PERMANENT SIGNS, AND BILLING THE CONTRACTOR FOR ALL COSTS INVOLVED. ALL REMOVED MATERIAL SHALL BE CONSIDERED FORFEITED TO THE CITY. MOUNTING HARDWARE AND POSTS SHALL BE INCIDENTAL TO THIS BID ITEM.

PAYMENT SHALL BE PER THE UNIT PRICE BID TO INSTALL AND REMOVE ALL NECESSARY SIGNS AT EACH INTERSECTION. 11/5/15

ITEM 632 SIGNALIZATION, MISC.: STOP LINE RADAR DETECTION SYSTEM

THIS ITEM OF WORK SHALL CONSIST OF FURNISHING AND INSTALLING A WAVETRONIX SMARTSENSOR MATRIX RADAR DETECTION SYSTEM. EACH RADAR DETECTOR UNIT SHALL BE MOUNTED DIRECTLY TO A POLE, MAST ARM, OR BRACKET ARM AS SHOWN ON THE PLAN OR AS RECOMMENDED BY THE MANUFACTURER. MOUNTING HARDWARE AND CABLE CONNECTIONS SHALL BE INSTALLED PER CURRENT MANUFACTURER SPECIFICATIONS. THE SENSOR SHALL BE GROUNDED TO THE GROUND LUG OF THE SIGNAL POLE PER CURRENT MANUFACTURER SPECIFICATIONS.

THE DETECTION SYSTEM SHALL INCLUDE THE FOLLOWING:

- 1. WAVETRONIX MATRIX DETECTOR UNITS AS SHOWN IN THE PLANS.
- 2. WAVETRONIX CLICK 656 CABINET INTERFACE DEVICE TO PROVIDE POWER, SURGE PROTECTION, AND ETHERNET CONNECTIVITY FOR THE RADAR DETECTOR UNITS.
- 3. CONTACT CLOSURE DEVICES IF NECESSARY OR AS RECOMMENDED BY THE MANUFACTURER TO CONNECT TO THE TRAFFIC CONTROLLER AND BE COMPATIBLE WITH CITY OF COLUMBUS SIGNAL CABINETS. IF USED, THE DEVICES SHALL BE SECURED TO A SINGLE PANEL THAT CAN BE MOUNTED INTERIOR TO THE TRAFFIC SIGNAL CABINET.
- 4. SENSOR CABLE(S) SHALL BE PROVIDED AS REQUIRED AND AS RECOMMENDED BY THE MANUFACTURER. THE CABLE SHALL BE SUITABLE FOR INSTALLATION IN CONDUIT AND OVERHEAD WITH APPROPRIATE SPAN WIRE. THE DETECTOR CABLE SHALL BE RUN CONTINUOUSLY FROM THE DETECTOR UNIT TO THE CONTROLLER CABINET (NO SPLICES).
- 5. AN ETHERNET CABLE (MINIMUM 7 FEET).

A CITY SIGNAL MAINTENANCE REPRESENTATIVE SHALL BE ON SITE DURING INSTALLATION AND TESTING OF THE UNIT.

PAYMENT FOR ITEM 632 SIGNALIZATION, MISC.: STOP LINE RADAR DETECTION SYSTEM SHALL BE MADE AT THE CONTRACT UNIT PRICE FOR EACH SYSTEM, COMPLETE AND IN PLACE INCLUDING ALL REQUIRED DETECTOR UNITS, CABINET HARDWARE, MOUNTING BRACKETS, CABLES, AND CONNECTIONS TESTED AND ACCEPTED. 10/30/17

ITEM 632 SIGNALIZATION, MISC.: DILEMMA ZONE RADAR DETECTION SYSTEM

THIS ITEM OF WORK SHALL CONSIST OF FURNISHING AND INSTALLING A WAVETRONIX SMARTSENSOR ADVANCE RADAR DETECTION SYSTEM. EACH RADAR DETECTOR UNIT SHALL BE MOUNTED DIRECTLY TO A POLE, MAST ARM, OR BRACKET ARM AS SHOWN ON THE PLAN OR AS RECOMMENDED BY THE MANUFACTURER. MOUNTING HARDWARE AND CABLE CONNECTIONS SHALL BE INSTALLED PER CURRENT MANUFACTURER SPECIFICATIONS. THE SENSOR SHALL BE GROUNDED TO THE GROUND LUG OF THE SIGNAL POLE PER CURRENT MANUFACTURER SPECIFICATIONS.

THE DETECTION SYSTEM SHALL INCLUDE THE FOLLOWING:

- 1. WAVETRONIX ADVANCE DETECTOR UNITS AS SHOWN IN THE PLANS.
- 2. N/A
- 3. CONTACT CLOSURE DEVICES IF NECESSARY OR AS RECOMMENDED BY THE MANUFACTURER TO CONNECT TO THE TRAFFIC CONTROLLER AND BE COMPATIBLE WITH CITY OF COLUMBUS SIGNAL CABINETS. IF USED, THE DEVICES SHALL BE SECURED TO A SINGLE PANEL THAT CAN BE MOUNTED INTERIOR TO THE TRAFFIC SIGNAL CABINET.

ITEM 632 POWER SERVICE, AS PER PLAN

IN ADDITION TO THE REQUIREMENTS OF 632.24, THE CONTRACTOR SHALL CONTACT THE SERVICE PROVIDER AND MAKE ARRANGEMENTS FOR THE CONNECTION OF POWER FOR THE TRAFFIC SIGNAL CONTROLLER CABINET. THE CONTRACTOR SHALL CONTACT THE POWER SERVICE PROVIDER A MINIMUM OF 120 CALENDAR DAYS IN ADVANCE OF THE NEED FOR POWER WITH THE ADDRESS OF THE TRAFFIC SIGNAL CONTROLLER CABINET AS PROVIDED IN THE PLANS.

POWER SHALL BE SUPPLIED BY SOUTH CENTRAL POWER. POWER SHALL BE 120/240 VAC. POWER SERVICE SHALL BE FROM THE APPROXIMATE LOCATION(S) AS SHOWN ON THE PLANS. CONTACT (SOUTH CENTRAL POWER CUSTOMER SERVICE (1-800-282-5064).

INTERSECTION	INTERSECTION NUMBER	TRAFFIC SIGNAL CONTROLLER CABINET ADDRESS	POWER SERVICE PROVIDER
LASALLE DR AT LONDON GROVEPORT RD	2220	1507 LONDON GROVEPORT RD	SOUTH CENTRAL POWER

6/1/20

4. SENSOR CABLE(S) SHALL BE PROVIDED AS REQUIRED AND AS RECOMMENDED BY THE MANUFACTURER. THE CABLE SHALL BE SUITABLE FOR INSTALLATION IN CONDUIT AND OVERHEAD WITH APPROPRIATE SPAN WIRE. THE DETECTOR CABLE SHALL BE RUN CONTINUOUSLY FROM THE DETECTOR UNIT TO THE CONTROLLER CABINET (NO SPLICES).

- 5. AN ETHERNET CABLE (MINIMUM 7 FEET).

A CITY SIGNAL MAINTENANCE REPRESENTATIVE SHALL BE ON SITE DURING INSTALLATION AND TESTING OF THE UNITS.

PAYMENT FOR ITEM 632 SIGNALIZATION, MISC.: DILEMMA ZONE RADAR DETECTION SYSTEM SHALL BE MADE AT THE CONTRACT UNIT PRICE FOR EACH SYSTEM, COMPLETE AND IN PLACE INCLUDING ALL REQUIRED DETECTOR UNITS, CABINET HARDWARE, MOUNTING BRACKETS, CABLES, AND CONNECTIONS TESTED AND ACCEPTED. 6/8/18

ITEM 632 SIGNALIZATION, MISC.: FOUNDATION PRE-EXCAVATION

THE SIGNAL SUPPORT OR PEDESTAL FOUNDATIONS FOR S/W-3 S/E-1, AND S/E-3 SHALL BE EXCAVATED OR VACUUM EXCAVATED TO TEST FOR CONFLICTS PRIOR TO SHOP DRAWINGS APPROVAL.

PAYMENT FOR ITEM 632 SIGNALIZATION, MISC.: FOUNDATION PRE-EXCAVATION SHALL BE MADE AT THE CONTRACT UNIT PRICE FOR EACH FOUNDATION REQUIRING PRE-EXCAVATION. 3/16/18

ITEM 632 SIGNALIZATION, MISC.: POWER METER CABINET (TYPE D, BASE MOUNT, WITH FOUNDATION

THIS ITEM SHALL INCLUDE THE POWER METER CABINET, POWER METER SOCKET, LOAD CENTER PANEL, CONCRETE FOUNDATION, GROUNDING, AND INCIDENTALS AS DESCRIBED HEREIN.

THE CONDUIT AND FOUR (4) ANCHOR BOLTS AND REQUIRED CONDUIT ELLS AND THEIR INSTALLATION SHALL BE INCIDENTAL TO THE COST OF THIS ITEM.

THE POWER METER CABINET SUPPLIED SHALL BE A MILBANK SLIMLINE SERIESCOMMERCIAL PEDESTAL (CATALOG NO. CP3A51CIVIAOSP3-CITY OF COLUMBUS).

THE POWER METER SOCKET SUPPLIED SHALL BE A MILBANK CATALOG NO. U9551-RRL, TALON CATALOG NO. 40405-02QG, OR APPROVED EQUAL. THE LOAD CENTER SHALL BE A SCHNEIDER ELECTRIC Q024L60NRNM, EATON CH2L70RP, OR APPROVED EQUIVALENT.

THE WORK AS DESCRIBED WILL BE MEASURED AS THE NUMBER OF POWER METER CABINETS FURNISHED AND INSTALLED AND SHALL INCLUDE FURNISHING ALL MATERIALS, EQUIPMENT, LABOR AND INCIDENTALS, INCLUDING HUBS, CONDUITS ELLS AND FLEXIBLE CONDUIT, AND WIRING IN THE POWER METER CABINET, NECESSARY TO COMPLEE THE WORK SPECIFIED, COMPLETE IN PLACE. 10/1/20

ITEM 633 CONTROLLER UNIT TS2/A2, W/CABINET 16 CH, SIZE, MOUNTING TYPE, AS PER PLAN

IN ADDITION TO THE OTHER REQUIREMENTS OF 633 & 733, THE CONTROLLER (TS2, TYPE 2/TS1 COMPATIBLE) SHALL BE PER THE CITY'S OPL AND INCLUDE AN ETHERNET MODULE. THE CABINET ASSEMBLY SHALL MEET ALL CITY STANDARDS AS SET FORTH BETWEEN THE SUPPLIERS AND THE DIVISION OF TRAFFIC MANAGEMENT.

IN ADDITION TO THE OTHER SPECIFICATION DOCUMENTS, THE CABINET ASSEMBLY SHALL MEET THE FOLLOWING SPECIFICATIONS.

- (A) ALL LABELS SHALL BE PERMANENTLY SECURED TO THE CABINET. PLASTIC LABEL MAKER TAPE IS NOT CONSIDERED TO BE PERMANENT. CROY TYPE LABELS ARE ACCEPTABLE.
- (B) THE 120 VAC, CONVENIENCE OUTLET ASSEMBLY (GFI TYPE) SHALL BE MOUNTED ON THE RIGHT SIDE PANEL OF THE CABINET NEAR THE DOOR HINGE AREA OR THE CENTER PORTION OF THE DOOR. THE OUTLET SHALL NOT INTERFERE WITH THE REMOVAL OR INSTALLATION OF ANY EQUIPMENT.
- (C) LOAD SWITCHES SHALL BE EDI MODEL 510 WITH LIGHTS PERMANENTLY LABELLED AS R, Y, G OR A, B, C. A LOAD SWITCH SHALL BE PROVIDED FOR EACH BACK PANEL LOAD SWITCH SOCKET POSITION WHETHER USED OR UNUSED. ALL LOAD SWITCHES SHALL REST IN A SUPPORT RACK. LOAD SWITCHES 9-12 SHALL BE USED FOR THE OVERLAPS AND LOAD SWITCHES 13-16 SHALL BE USED FOR THE PEDESTRIAN SIGNAL HEADS.
- (D) LIGHTNING PROTECTION DEVICES SUCH AS ITT, SURRESTOR, GENERAL ELECTRIC, OR APPROVED EQUAL (AS DETERMINED BY THE DIVISION OF TRAFFIC MANAGEMENT) SHALL BE PROVIDED.
- (E) THE NEMA TYPE 4 CABINET SHALL BE PER THE CITY'S OPL. ALL EXTERIOR CABINET SEAMS SHALL BE EITHER CONTINUOUSLY WELDED, TACK WELDED, SEALED WITH A 15 TO 20 YEAR SILICONE SEALER, AND/OR OVERLAPPED SUCH THAT WATER DOES NOT ENTER THE CABINET. ALL CABINET EDGES SHALL BE SMOOTH (FREE OF ANY SHARP EDGES). THE CABINET DOOR FRAME OPENING SHALL BE DOUBLE-FLANGED ON ALL FOUR SIDES. THE CABINET DOOR SHALL BE HINGED USING A HEAVY GAUGE CONTINUOUS HINGE THAT HAS A STAINLESS STEEL HINGE PIN. THE HINGE SHALL BE BOLTED TO THE CABINET SO THE DOOR CAN BE REMOVED. THE BOLTS AND NUTS SHALL BE MADE OF STAINLESS STEEL, TAMPERPROOF AND SECURELY FASTENED TO PREVENT VIBRATIONS FROM LOOSENING THE NUTS. THE DOOR SHALL BE EQUIPPED WITH A THREE (3) POINT LATCHING MECHANISM AND A HANDLE WHICH CAN BE PADLOCKED. IN ADDITION TO THE DOOR STOP POSITIONS LISTED IN NEMA TS-2, THE DOOR SHALL BE DESIGNED SUCH THAT IT INCLUDES A DOOR STOP AT 135 DEGREES. THE POLICE DOOR AND MAIN CABINET DOOR SHALL HAVE A KEYHOLE COVER. BOLT PATTERN SHALL CONSIST OF AN ANCHOR BOLT POSITIONED IN EACH CABINET CORNER.
- (F) A THYRECTOR SURGE PROTECTOR WITH A RMS INPUT OF 150 VOLTS AND INPUT PEAK OF 210 VOLTS SHALL BE PROVIDED IN ADDITION TO ANY LIGHTNING PROTECTION DEVICE. THE THYRECTOR SHALL BE PLACED ACROSS THE INPUT AC POWER LINE.

CALCULATED
JSW
CHECKED
SMM

IMPROVEMENTS OF LONDON-GROVEPORT ROAD FROM 960' WEST OF LASALLE DR TO 1000' WEST OF LASALLE DR TO LOCKBOURNE ROAD TO 2025' SOUTH OF LONDON-GROVEPORT RD TO 2025' SOUTH OF LONDON-GROVEPORT RD

- (G) TWO (2) CIRCUIT SOLID STATE FLASHER, EDI MODEL 810, RATED AT 15 AMPS (MINIMUM) PER CIRCUIT SHALL BE PROVIDED (NEMA TYPE 3). CIRCUIT 1 SHALL CONTROL THE MAINLINE FLASHING SIGNAL INDICATIONS. CIRCUIT 2 SHALL CONTROL THE SIDE STREET FLASHING SIGNAL INDICATIONS.
- (H) THE MAIN CIRCUIT BREAKER AND AUXILIARY CIRCUIT BREAKER, AS REQUIRED BY NEMA TS-2, SHALL BE LABELED AS "MAIN" AND "AUX," RESPECTIVELY.
- (I) THE CABINET ASSEMBLY SHALL CONTAIN ALL PEDESTRIAN SIGNAL CIRCUITRY FOR EACH NEMA DEFINED THROUGH PHASE.
- (J) A POLICE DOOR MOUNTED SIGNAL SHUTDOWN SWITCH WITH SWITCH POSITIONS LABELED AS "SIG ON" AND "SIG OFF" SHALL BE INSTALLED.
- (K) A POLICE DOOR MOUNTED SIGNAL FLASH SWITCH WITH SWITCH POSITIONS LABELED AS "ON SIG" AND "ON FLASH" SHALL NOT ONLY PLACE THE SIGNALS ON FLASH BUT ALSO STOP-TIME THE CONTROLLER UNIT. A RUN/STOP-TIME SWITCH WITH SWITCH POSITIONS LABELED AS "CONT. RUN" AND "STOP-TIME" SHALL BE INSTALLED ON THE INSIDE OF THE CABINET DOOR. THE RUN/STOP-TIME SWITCH SHALL ALLOW THE CONTROLLER UNIT TO TIME NORMALLY BUT KEEP THE SIGNALS ON FLASH. THE SIGNAL FLASH SWITCH SHALL NOT RETURN THE SIGNALS TO NORMAL OPERATION UNLESS THE RUN/STOP-TIME SWITCH IS RESET TO THE STOP-TIME POSITION SO THE SIGNAL FLASH SWITCH CAN AGAIN STOP-TIME THE CONTROLLER UNIT. THE SIGNAL FLASH SWITCH SHALL NOT REMOVE POWER TO THE CONTROLLER UNIT OR ITS AUXILIARY EQUIPMENT.
- (L) A POLICE DOOR MOUNTED AUTO-MANUAL TRANSFER SWITCH WITH SWITCH POSITIONS LABELED AS "AUTO" AND "MANUAL" SHALL BE INSTALLED. A MANUAL PUSH BUTTON CONTROL SHALL NOT BE INSTALLED UNLESS SPECIFIED, BUT WIRING FOR A PUSH BUTTON CONTROL SHALL BE PROVIDED UP TO THE POINT WHERE THE PUSH BUTTON WOULD HAVE BEEN CONNECTED.
- (M) A CONTROLLER SHUTDOWN SWITCH WITH SWITCH POSITIONS LABELED AS "CONT ON" AND "CONT OFF" AND A COORDINATED/FREE SWITCH WITH SWITCH POSITIONS LABELED AS "COORD" AND "FREE" SHALL BE INSTALLED INSIDE THE CABINET NEXT TO THE RUN/STOP-TIME SWITCH. A COORDINATED/FREE SWITCH SHALL NOT BE REQUIRED IF THE CONTROLLER HAS A BUILT-IN COORD/FREE SWITCH.
- (N) THE WATCH DOG TIMER SHALL CAUSE THE CONTROLLER TO GO INTO A FLASH OPERATION IF A MICROPROCESSOR FAILURE IS DETECTED.
- (O) ALL BACK PANEL HARDWARE SHALL BE MOUNTED WITH SCREWS. ALL SCREWS SHALL BE COMPLETELY SCREWED DOWN. RIVETS OR OTHER NON-REMOVABLE FASTENERS ARE NOT ACCEPTABLE. WIRE CONNECTIONS ON THE BACK PANEL SHALL BE MADE WITH CRIMP TERMINALS AND THREADED FASTENERS. TELEPHONE TYPE KNIFE CONNECTORS (SOLDERED OR OTHERWISE) ARE NOT ACCEPTABLE.
- (P) ALL WIRES FASTENED TO THE LOAD SWITCH AND FLASHER PLUGS SHALL BE SOLDERED IN PLACE.
- (Q) THE BACK PANEL AND POWER DISTRIBUTION PANEL SHALL HAVE SILK SCREENED TERMINAL/ SOCKET FUNCTION IDENTIFICATION LABELS SUCH AS AC COM, PHASE 3 GREEN, 115 VAC, SIGNAL BUS, ETC. REFERENCE NUMBERS SHALL NOT BE ACCEPTABLE IN LIEU OF FUNCTION LABELS BUT THEY CAN SUPPLEMENT THEM. ADDITIONAL TERMINAL BLOCKS AND AUXILIARY PANELS SHALL USE SILK SCREENED REFERENCE NUMBERS TO IDENTIFY TERMINAL CONNECTIONS.
- (R) ALL TERMINAL STRIPS IN CLOSE PROXIMITY OF SHELF MOUNTED CONTROL DEVICE EQUIPMENT SHALL BE COVERED WITH NON-CONDUCTIVE MATERIAL TO PREVENT ACCIDENTAL CONTACT WITH THE DEVICES. ALL TERMINAL STRIPS SHALL BE READILY ACCESSIBLE WITHOUT REMOVAL OF ANY EQUIPMENT.
- (S) IN ADDITION TO THE ALUMINUM SHELF WITH INTERNAL STORAGE AS SPECIFIED BY 733 B.10, THE CABINET SHALL HAVE ONE NON-VENTED (SOLID) SHELF. THE SHELVES SHALL BE SPACED AT LEAST 9" APART. BOTH SHELVES SHALL HAVE A WIDTH OF 13" AND THE BACK EDGE OF THE SHELF SHALL BE LIPPED WITH THE LIP POINTING UP. THE FRONT EDGE OF THE SHELF SHALL BE LIPPED WITH THE LIP POINTING DOWN. ALL LIP EDGES SHALL BE ROUNDED. THE SHELVES SHALL BE ATTACHED TO THE CABINET SIDE PANELS. THE SHELF ARRANGEMENT SHALL BE DESIGNED SO ALL SHELF DEVICES FIT ON THEM.
- (T) THERE SHALL BE A MINIMUM OF ONE (1) INCH EMPTY SPACE BETWEEN ALL ITEMS ATTACHED TO THE DOOR AND ALL SHELF-MOUNTED DEVICES INCLUDING ITS CONNECTING HARNESS(ES), ALL LOAD SWITCHES, FLASHER AND ALL SIDE-PANEL-MOUNTED ITEMS.
- (U) ALL CABINETS SHALL HAVE TWO VENTILATION FANS. THE THERMOSTAT CONTROLLING THE VENTILATING FAN CIRCUIT SHALL BE SET AT 95 DEGREES FAHRENHEIT.
- (V) ALL FLASH TRANSFER RELAYS SHALL BE WIRED FOR FAIL-SAFE OPERATION (ENERGIZED DURING NORMAL OPERATION) AND WIRED WITH A MAXIMUM OF TWO PHASES PER RELAY.

THE POWER CABLE SHALL BE CONNECTED TO AN ACCESSIBLE TERMINAL STRIP THAT SHALL BE OF SUFFICIENT SIZE TO ACCEPT THE GAUGE OF THE SUPPLIED POWER CABLE. THE TERMINAL STRIP SHALL BE COVERED OR SHIELDED TO MINIMIZE ACCIDENTAL CONTACT DURING NORMAL SERVICING OPERATIONS. THE COVER SHALL BE SNAPPED ON/OFF OR SECURED BY STANDARD SCREWS. THE POWER CABLE LUG TERMINAL CONNECTION SHALL BE LOCATED IMMEDIATELY BELOW THE MAIN POWER DISTRIBUTION BREAKER. THERE SHALL BE A MINIMUM OF TWO (2) INCHES CLEARANCE BETWEEN THE POWER TERMINAL AND THE BOTTOM OF THE CABINET.

- (X) A #4 WIRE LUG SHALL BE PROVIDED FOR ATTACHING A GROUNDING WIRE FROM A GROUND ROD.

1. FOR LOCATIONS WITHOUT A POWER METER CABINET: THE GROUNDING WIRE SHALL BE ATTACHED TO THE POWER DISTRIBUTION PANEL NEUTRAL BUS. THE NEUTRAL BUS SHALL BE DIRECTLY GROUNDED TO THE CABINET GROUND BUS.

2. FOR LOCATIONS WITH A POWER METER CABINET: THE GROUNDING WIRE SHALL BE ATTACHED TO THE POWER DISTRIBUTION PANEL GROUND BUS. THE NEUTRAL BUS SHALL ONLY BE CONNECTED TO THE GROUND BUS IN THE POWER METER CABINET, NOT THE TRAFFIC SIGNAL CABINET.

- (Y) A SOLID STATE RELAY, CRYDOM PART NO. CWA2450, SHALL BE INSTALLED WHICH WILL ALLOW POWER TO BE REMOVED FROM THE VEHICULAR POWER BUS. THE SOLID STATE RELAY SHALL BE RATED AT 50 AMPS AND 120 VOLTS AND SHALL BE EQUIPPED WITH A PLASTIC COVER.
- (Z) ALL EXTERNAL RELAY COILS SHALL HAVE NOISE SUPPRESSION DEVICES.
- (AA) THE DOOR FILTER (U.L. LISTED CLASS 2, STANDARD 900) SHALL CONSIST OF THREE DISTINCT LAYERS OF FILTERING MEDIA. THE FIRST AIR ENTERING LAYER SHALL BE COMPOSED OF A DUAL FIBER BLEND OF 100% NON-WOVEN POLYESTER TO TRAP LARGER SIZED PARTICLES. THE NEXT LAYER SHALL BE A DUAL PLY, DUAL DENIER, 100% NON-WOVEN POLYESTER OF SMALLER SIZE TO TRAP FINER PARTICLES PASSING THROUGH THE FIRST LAYER. A NON-TOXIC, NON-MIGRATORY, ODORLESS TACKIFIER SHALL BE APPLIED TO THESE LAYERS. ADHESIVES SPRAYED ON THE LAYERS ARE NOT ACCEPTABLE. THE TACKIFIER SHALL BE INCORPORATED INTO THE LAYER MEDIA DURING THE MANUFACTURING PROCESS OF THE RAW MATERIAL. A 10 GAUGE MESH SHALL BE INCORPORATED IN THE FILTER DESIGN FOR RIGIDITY. SUFFICIENT MEDIA OVERLAP SHALL BE PRESENT ABOUT THE WIRE PERIMETER TO INSURE POSITIVE SELF SEAL. THE DOOR FILTER HOLDER SHALL BE DESIGNED SO THE FILTER MAKES POSITIVE CONTACT WITH THE CABINET DOOR AT ALL TIMES AND UNDER ALL CONDITIONS AND SITUATIONS.
- (BB) AN OUTLET RECEPTACLE AND BOX SHALL BE INSTALLED IN THE CABINET TO PROTECT NETWORK EQUIPMENT FROM AN IMBALANCE FLOW OF CURRENT FROM THE HOT TO THE NEUTRAL. THE OUTLET SHALL BE A NEMA DUPLEX 5-15 RECEPTACLE, RATED AT 15 AMPS (MINIMUM) AT 120 VAC. THE OUTLET SHALL MEET OR EXCEED FEDERAL SPECIFICATIONS AND UL 498 STANDARDS AND SHALL BE RATED AS WEATHER-RESISTANT. THE RECEPTACLE SHALL BE INSTALLED WITHIN A METALLIC, SINGLE GANG ELECTRICAL BOX WITH A COVER PLATE. THE ELECTRICAL BOX SHALL BE STANDARD DEPTH (NOMINALLY 2 - 1/8 IN.) AND SHALL BE UL-LISTED. THE OUTLET SHALL BE INSTALLED INSIDE THE CABINET ALONG ONE OF THE SIDE WALLS AND SHALL BE WIRED FROM THE SAME CIRCUIT BREAKER AS THE OTHER OUTLETS, UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
- (CC) A SURGE SUPPRESSION DEVICE SHALL BE INSTALLED IN THE CABINET TO PROVIDE PROTECTED POWER OUTLETS TO NETWORK EQUIPMENT. THE SURGE SUPPRESSION DEVICE SHALL BE SECURELY MOUNTED IN THE CABINET IN A METHOD APPROVED BY THE ENGINEER. THE SURGE SUPPRESSION DEVICE INSTALLED SHALL HAVE 6 NEMA 5-15 OUTLETS AND SHALL BE CAPABLE OF BEING PLUGGED INTO A STANDARD 5-15 OUTLET. THE OUTPUT CURRENT OF THE SURGE SUPPRESSION DEVICE SHALL BE 15 AMPS. THE SURGE SUPPRESSION DEVICE SHALL HAVE AN ENERGY HANDLING RATING OF 1280 JOULES, UL 1499 LET THROUGH RATING OF 330 VOLTS, AND SURGE CURRENT RATING OF 50,000 AMPS.

PROVIDE AN ARC FLASH HAZARD WARNING SIGN ON THE OUTSIDE OF THE FRONT DOOR OF THE CABINET IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE PARAGRAPH 110.16.

FOR LOCATIONS WITHOUT A POWER METER CABINET, PROVIDE AN AVAILABLE FAULT CURRENT SIGN ON THE OUTSIDE OF THE FRONT DOOR OF THE TRAFFIC SIGNAL CONTROLLER CABINET IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE PARAGRAPH 110.24. 10/01/20

- ITEM 632 SIGNALIZATION, MISC.: CELLULAR ETHERNET COMMUNICATIONS UNIT
- THE CELLULAR ETHERNET COMMUNICATIONS UNIT SHALL BE A FULLY CONTAINED, SHELF MOUNTABLE ENCLOSURE NOT LARGER THAN 5 INCH X 5 INCH X 1.5 INCH IN SIZE.
- THE CELLULAR ETHERNET COMMUNICATIONS UNIT SHALL BE A CRADLEPOINT PART NUMBER TB3-600C150M-NNN (3-YR NETCLOUD IOT ESSENTIALS PLAN AND IBR600C ROUTER WITH WIFI AND150 MBPS MODEM, NORTH AMERICA).
- THE CONTRACTOR SHALL INSTALL THE CELLULAR ETHERNET COMMUNICATIONS UNIT IN SIGNAL CONTROLLER CABINET AND MAKE CONNECTION TO NETWORK SWITCH.
- CONTRACTOR SHALL COORDINATE THE INITIAL SETUP OF CELLULAR SERVICE WITH THE SERVICE PROVIDER TO ESTABLISH THE SERVICE PLAN TO PROVIDE CONNECTIVITY TO CENTRAL SYSTEM. THE SERVICE PROVIDER FOR THE UNIT SHALL BE AT&T FIRSTNET.
- THE WORK AS DESCRIBED WILL BE MEASURED AS ONE UNIT FOR EACH OF THE INSTALLATIONS SPECIFIED, AND SHALL INCLUDE ALL MATERIALS, EQUIPMENT AND INCIDENTALS, COMPLETE IN PLACE. TERMINATIONS, CONNECTIONS, ANTENNAS, AND OTHER MISCELLANEOUS ITEMS AND MATERIALS SHALL BE INCIDENTAL TO THIS WORK AND NO SEPARATE PAYMENT WILL BE MADE.
- ADDITIONALLY, DATA SERVICE CHARGES INCURRED FROM CARRIER THROUGH THE DURATION OF THE PROJECT ARE TO BE INCLUDED WITH THE COST OF THIS PAY ITEM.
- ITEM 632 STRAIN POLE FOUNDATION (BY DEPTH), AS PER PLAN
- FOR SIGNAL POLES MOUNTED TO DEEP FOUNDATIONS CONSTRUCTED UNDER THIS ITEM, THE ALUMINUM POLE IDENTIFICATION TAG, AS REQUIRED AND IN ACCORDANCE WITH 732.11 AND 732.12, SHALL ALSO BE LABELED WITH "DEEP FOUNDATION" FOLLOWED BY THE DEPTH OF THE FOUNDATION (E.G. DEEP FOUNDATION, 18 FT.) THE FOUNDATION SHALL BE CONSTRUCTED IN ACCORDANCE WITH 632.14, SCD 4160, AND 4161. 5/15/18

- ITEM 633 CONTROLLER ITEM, MISC.: LAYER 2 ETHERNET SWITCH
- THE CONTRACTOR SHALL PURCHASE AND INSTALL ENVIRONMENTALLY HARDENED LAYER 2 ETHERNET SWITCHES AS SHOWN ON THE PLANS. LAYER 2 ETHERNET SWITCHES SHALL BE COMNET MODEL CNGE1FX3TX8MS THIS WORK IS THE FURNISHING AND INSTALLATION OF A LAYER 2 SWITCH WITH THREE 100/1000BASE-FX SFP PORTS AND EIGHT SWITCHED 10/100/1000BASE-TX RJ45 PORTS.
- ALL EQUIPMENT SHALL BE NEW AND IN STRICT ACCORDANCE WITH THE DETAILS SHOWN ON THE PLANS AND THE SPECIFICATIONS.
- TRAFFIC MAINTENANCE SHALL BE CONTACTED AT 645-7393 14 CALENDAR DAYS PRIOR TO INSTALLATION TO PROGRAM THE SWITCH. THE CONTRACTOR SHALL INSTALL THE SWITCH IN THE CABINET BUT SHALL NOT MAKE ANY CONNECTIONS TO THE SWITCH.
- THE TRAFFIC MAINTENANCE MANAGER SHALL INSPECT THE CONDITION OF ALL COMPONENTS UPON INSTALLATION. NO DAMAGED COMPONENT WILL BE ACCEPTED, AND NO COMPONENT SHALL BE CONSIDERED INSTALLED UNTIL THE TRAFFIC MAINTENANCE MANAGER APPROVES OF THE SWITCH INSTALLATION. LAYER 2 ETHERNET SWITCHES SHALL SUPPORT DIRECT CONNECTIVITY TO PROPOSED AND EXISTING NETWORKS CONFIGURED IN RING AND MESH FAULT TOLERANT TOPOLOGIES ENABLING APPLICATIONS TO OPERATE RELIABLY, AND WITH LOW LATENCY.
- ALL EQUIPMENT SHALL INCLUDE LICENSES, WHERE REQUIRED, FOR ANY SOFTWARE OR HARDWARE IN THE SYSTEM.
- LAYER 2 ETHERNET SWITCHES SHALL SUPPORT DIRECT CONNECTIVITY TO PROPOSED AND EXISTING NETWORKS CONFIGURED IN RING AND MESH FAULT TOLERANT TOPOLOGIES ENABLING APPLICATIONS TO OPERATE RELIABLY, AND WITH LOW LATENCY.
1. INSTALL POWER ADAPTER, POWER CABLES, CATEGORY 5E OR CATEGORY 6 PATCH CORDS, AND SINGLE MODE PATCH CABLES AS REQUIRED AND DEPICTED ON COMMUNICATIONS DIAGRAMS.

2. SECURELY MOUNT THE SWITCH AND POWER SUPPLY IN THE CABINET.

3. MAKE POWER CONNECTION TO AN AVAILABLE OUTLET ON THE INSTALLED SURGE SUPPRESSOR.

4. MAKE THE COMMUNICATION CONNECTIONS.

5. ESTABLISH AND VERIFY COMMUNICATIONS TO THE NETWORK PRIOR TO TRANSITIONING SIGNAL CONTROLLER TO NEW SYSTEM.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING A COMPLETE, FUNCTIONAL SYSTEM INCLUDING ALL NECESSARY CABLES AND CONNECTORS IN ACCORDANCE TO THE SPECIFICATIONS AND AS SPECIFIED ON THE PLANS. ALL MISCELLANEOUS PATCH AND INTERCONNECT CABLES SHALL MEET THE PROPOSED EQUIPMENT SPECIFICATION REQUIREMENTS AND SHALL MEET EIA/TIA TELECOMMUNICATIONS STANDARDS. ADDITIONALLY, FIBER OPTIC PATCH CABLES SHALL CONFORM TO THE PLAN REQUIREMENTS FOR PATCH CABLES. 5/12/20
- ITEM 633 CONTROLLER ITEM, MISC.: FIBER OPTIC ETHERNET TRANSCEIVER, SHORT RANGE
- THE CONTRACTOR SHALL FURNISH AND INSTALL SINGLE MODE FIBER (SMF), SMALL FORM FACTOR PLUGGABLE (SFP) GIGABIT INTERFACE CONVERTER (GBIC) MODULES AT LOCATIONS AS SHOWN ON THE PLANS.
- THE GBIC TRANSCEIVER SHALL BE 1000BASE LX/LH SFP-LC TRANSCEIVER (CISCO PART #GLC-LX-SM-RGD).
- THE CONTRACTOR SHALL INSTALL THE SFP MODULE IN THE ETHERNET SWITCH SLOT AND CONFIGURE AS NECESSARY.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING A COMPLETE, FUNCTIONAL SYSTEM INCLUDING ALL NECESSARY CABLES AND CONNECTORS IN ACCORDANCE TO THE SPECIFICATIONS AND AS SPECIFIED ON THE PLANS. ALL MISCELLANEOUS PATCH AND INTERCONNECT CABLES SHALL MEET THE PROPOSED EQUIPMENT SPECIFICATION REQUIREMENTS AND SHALL MEET EIA/TIA TELECOMMUNICATIONS STANDARDS.
- THE WORK AS DESCRIBED WILL BE MEASURED AS ONE UNIT FOR EACH OF THE INSTALLATIONS SPECIFIED, AND SHALL INCLUDE ALL MATERIALS, EQUIPMENT AND INCIDENTALS, COMPLETE IN PLACE. PATCH CABLES, TERMINATIONS, CONNECTIONS, AND OTHER MISCELLANEOUS ITEMS AND MATERIALS SHALL BE CONSIDERED INCIDENTAL TO THIS WORK AND NO SEPARATE PAYMENT WILL BE MADE. 12/2/15
- ITEM 625 BRACKET ARM, 30', AS PER PLAN
- BRACKET ARM SHALL BE INSTALLED PER SCD 4110 ON SIGNAL POLES AT LOCATIONS AS SHOWN IN THE PLANS TO FACILITATE THE INSTALLATION OF VEHICULAR DETECTION, CCTV, AND WIRELESS RADIO EQUIPMENT IN AREAS CLEAR OF OBSTRUCTIONS.
- BRACKET ARM SHALL BE MADE OF ALUMINUM ALLOY TUBING. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS OR VERIFY PLAN DETAILS TO DETERMINE THE SIZE AND CONFIGURATION OF REQUIRED CLAMPS PRIOR TO ORDERING - NO COMPENSATION WILL BE PROVIDED FOR MODIFICATIONS.
- ALL STRUCTURAL STEEL PRODUCTS SHALL BE GALVANIZED ON THE INTERIOR AND THE EXTERIOR SURFACES AS PER ASTM A123. THE EXTERIOR SURFACE OF ALL STRUCTURAL STEEL AND ALUMINUM PRODUCTS SHALL BE PROPERLY PREPARED FOR THE APPLICATION OF AN EXTERIOR COATING. THE COATING COLOR ON BOTH STEEL AND ALUMINUM PRODUCTS SHALL MATCH EACH OTHER. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE THAT BOTH PRODUCT MANUFACTURERS MATCH COATING COLORS SO THAT ACONSISTENT END PRODUCT IS ACHIEVED.
- ALL EXTERIOR SURFACES, ALL ATTACHMENT HARDWARE, AND ALL CLEVIS HANGERS SHALL HAVE A COATING APPLIED TO THEM. EXTERIOR SURFACES OF ALL BOLT AND SCREW FASTENERS, WASHER NUTS, AND OTHER ATTACHMENT HARDWARE SHALL HAVE A COATING APPLIED TO THEM. FASTENER THREADS SHALL NOT BE CLOGGED WITH COATING MATERIAL.

- THE EXTERIOR COATING FOR ALL ITEMS ABOVE SHALL:
1. MEET FEDERAL SPEC #595B, BE SEMI-GLOSS AND CONFORM TO COLORS AS SHOWN IN THE PLANS; AND BE APPLIED OVER PROPERLY PREPARED GALVANIZING MATERIAL ON STEEL PRODUCTS AND OVER PROPERLY PREPARED ALUMINUM FOR ALUMINUM PRODUCTS; AND HAVE A MINIMUM 5-YEAR REPAIR WARRANTY OF COATING DELAMINATION, BLISTERING, OR CORROSION.

ANY ALTERNATIVE PROCESSES FOR FINISH COATING OF BRACKET ARM PROPOSED BY THE CONTRACTOR MUST BE SUBMITTED TO THE ENGINEER FOR APPROVAL PRIOR TO STARTING WORK.

FOR ALUMINUM PARTS, EACH COATING LAYER SHALL BE PROPERLY CURED BEFORE THE APPLICATION OF THE NEXT COAT. THE APPLICATION PROCEDURE SHALL BE SUCH TO WARRANTY A FINISH WITHOUT DELAMINATION, BLISTERING, OR CORROSION AS PER THE MINIMUM (5) YEAR REPAIR WARRANTY.

THE COATING PROCESS SHALL INVOLVE SUCH STEPS AS THE FOLLOWING:

1. MECHANICAL PREPARATION (BRACKET ARM ASSEMBLY (BRACKET ARM AND ALL CONNECTION COMPONENTS) SHALL BE ROTARY-SANDED TO A SATIN-GROUND FINISH. BRACKETS SHALL BE ETCHED TO A MATTE FINISH. THIS TREATMENT WILL PLACE A ROUGH SURFACE ON THESE ITEMS SO THE BASE COATING LAYER WILL HAVE EXCELLENT ADHESION.

2. CLEANING - THE BRACKET ARM ASSEMBLY SHALL BE IMMERSED IN AN ALCOHOLIC-PHOSPHORIC ACID SOLUTION THAT WILL CHEMICALLY CLEAN THESE ITEMS. THE CLEANING SOLUTIONS SHALL BE KEPT AT A NOMINAL 70°FAHRENHEIT. THE CLEANING SOLUTIONS SHALL BE KEPT AT A NOMINAL 70° FAHRENHEIT. THE BRACKET ARM ASSEMBLY SHALL BE IMMERSED IN THE SOLVENT SOLUTION FOR 5 MINUTES AND THEN COLD-WATER RINSED UNTIL CHEMICALS ARE WASHED OFF.

3. CONVERSION COATING - THE BRACKET ARM ASSEMBLY SHALL THEN BE IMMERSED IN AN AMORPHOUS CHROMATE CONVERSION COATING SOLUTION FOR 5 MINUTES. THE SOLUTION SHALL BE MAINTAINED AT 70° F. THIS TREATMENT WILL RESULT IN THE FORMATION OF A SURFACE FILM IN WHICH THE FILM CHEMICALLY BONDS ITSELF TO THE BASE METAL BY DIFFUSION AND BECOMES A PART OF THE BASE METAL. THE BRACKET AND PEDESTAL ASSEMBLY SHALL BE COLD-WATER RINSED. THIS SURFACE WILL PROVIDE OPTIMUM ADHESION AND GOOD STABILITY FOR THE COLOR FILM SO THAT IT DOES NOT CHIP, PEEL, OR FLAKE.

4. PRIMER COATING - AN ALUMINUM PRIMER SHALL BE APPLIED AS REQUIRED TO THE BRACKET ARM ASSEMBLY TO FURTHER IMPROVE COATIN ADHESION.

5. FINAL COATING - EACH COAT SHALL BE PROPERLY DRIED BEFORE ADDITIONAL COATS ARE APPLIED. THE FINISH COAT OF PAINT SHALL MEET FEDERAL STANDARD #595B AND CONFORM TO COLOR #27038 (SEMI-GLOSS BLACK). THE FINISH COAT SHALL HAVE A MINIMUM 5-YEAR REPAIR WARRANTY OF COATING DELAMINATION, BLISTERING, OR CORROSION.

6. DRYING - THE BRACKET ARM ASSEMBLY SHALL BE THOROUGHLY DRIED THEN PROTECTED FOR SHIPMENT AS OUTLINED BEFORE.

ALL COATED ITEMS SHALL BE SHIPPED IN A MANNER SELECTED BY THE MANUFACTURER, WHICH WILL PROTECT MATERIAL FROM DAMAGE DURING DELIVERY. MATERIALS DAMAGED IN TRANSIT SHALL BE REPAIRED OR REPLACED. ALL COSTS ASSOCIATED WITH CORRECTING DAMAGED MATERIAL SHALL BE BORNE BY THE CONTRACTOR.

THE WORK AS DESCRIBED WILL BE MEASURED AS THE NUMBER BRACKET ARMS FURNISHED AND INSTALLED, COMPLETE IN PLACE. 10/15/19

ITEM 632 INTERCONNECT, MISC. INTERCONNECT EQUIPMENT RELOCATED

THIS ITEM OF WORK SHALL CONSIST OF RELOCATING EXISTING INTERCONNECT EQUIPMENT FROM THE EXISTING TRAFFIC SIGNAL CABINET TO THE PROPOSED CABINET AS SHOWN ON THE PLAN. THE CONTRACTOR SHALL RELOCATE THE EXISTING LAYER 2 SWITCH AND ETHERNET TRANSCEIVERS, cell modem, AND ANY OTHER MISCELLANEOUS ITEMS ASSOCIATED WITH THE ABOVE LISTED INTERCONNECT EQUIPMENT.


PRIOR TO RELOCATION, THE CONTRACTOR AND THE ENGINEER SHALL INSPECT THE EQUIPMENT AND CABLE TO DOCUMENT ANY EXISTING DAMAGE. ANY DAMAGE IDENTIFIED AFTER THE RELOCATION PROCESS AND NOT PREVIOUSLY DOCUMENTED WILL BE PRESUMED TO HAVE BEEN CAUSED BY THE CONTRACTOR. ANY DAMAGED EQUIPMENT OR CABLE WILL BE REPAIRED OR REPLACED AS DIRECTED BY THE ENGINEER AT THE CONTRACTOR'S EXPENSE.


THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING A COMPLETE, FUNCTIONAL SYSTEM INCLUDING ALL NECESSARY CABLES AND CONNECTORS IN ACCORDANCE TO THE SPECIFICATIONS AND AS SPECIFIED ON THE PLANS. ALL MISCELLANEOUS PATCH AND INTERCONNECT CABLES SHALL MEET THE PROPOSED EQUIPMENT SPECIFICATION REQUIREMENTS AND SHALL MEET EIA/TIA TELECOMMUNICATIONS STANDARDS.


THE WORK AS DESCRIBED WILL BE MEASURED AS ONE UNIT FOR EACH INTERSECTION SPECIFIED, AND SHALL INCLUDE ALL MATERIALS, EQUIPMENT AND INCIDENTALS, COMPLETE IN PLACE. PATCH CABLES, TERMINATIONS, CONNECTIONS, AND OTHER MISCELLANEOUS ITEMS AND MATERIALS SHALL BE CONSIDERED INCIDENTAL TO THIS WORK AND NO SEPARATE PAYMENT WILL BE MADE.


PAYMENT SHALL BE PER CMSC ITEM 632. 11/1/22



LEGEND

SIGNAL HEADS: VEHICULAR HEAD 

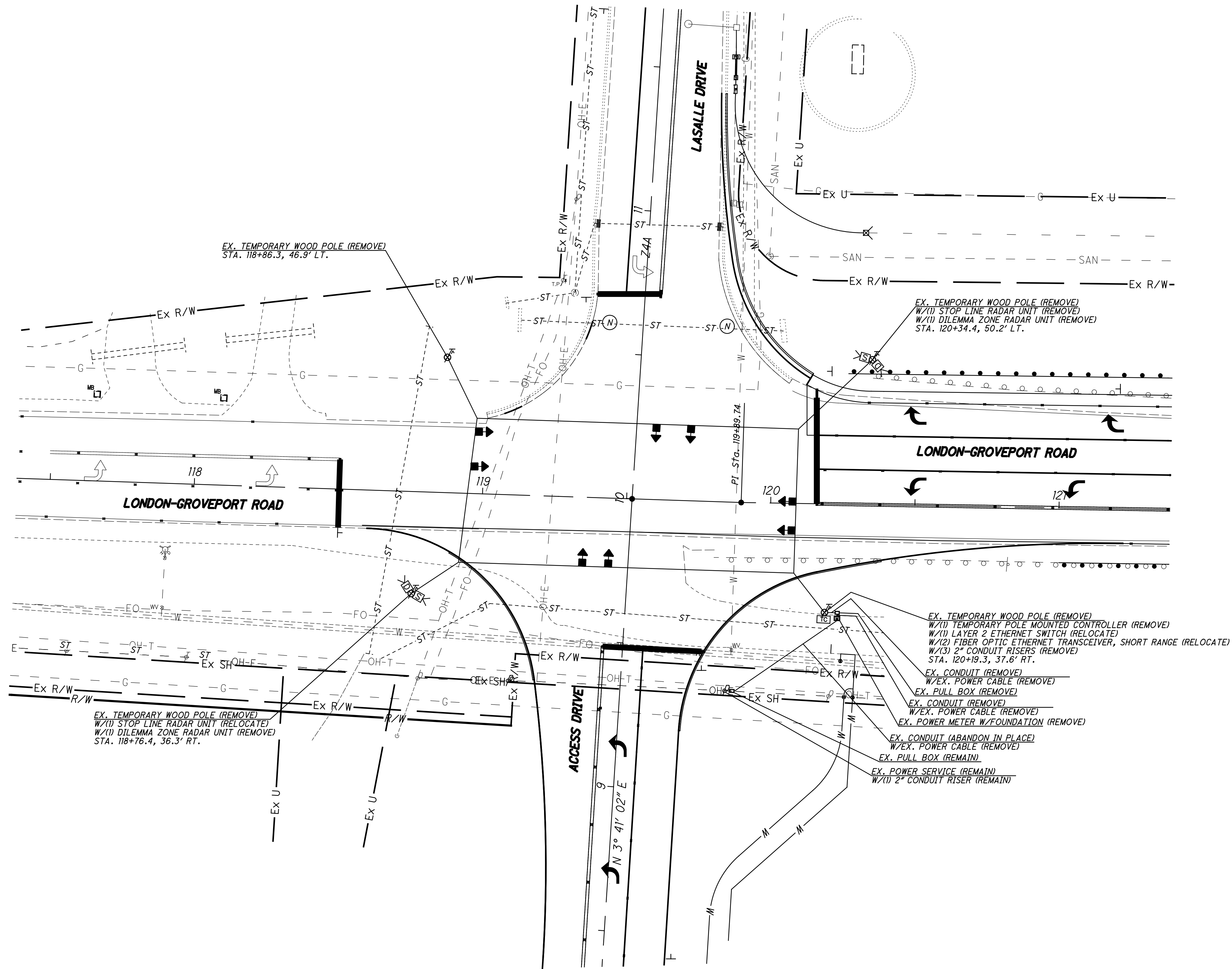
SIGNAL POLES: WOOD SIGNAL POLE 

CONTROLLERS & CABINETS: POLE MOUNTED CABINET 

PULL BOXES: PULL BOX 

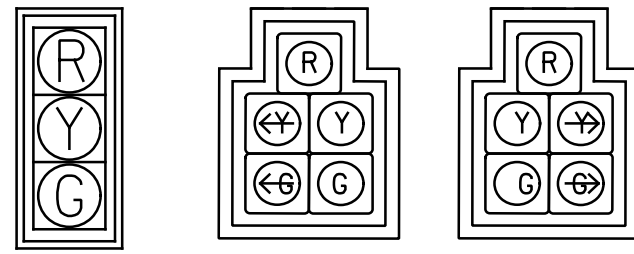
DETECTION: DILEMMA ZONE RADARS 
STOP LINE RADARS 

ITEM 632 REMOVAL OF TRAFFIC SIGNAL INSTALLATION, AS PER PLAN				
QUANTITY	REMOVED ITEM DESCRIPTION	DELIVERED TO 1820 E. 11TH AVE.	DISPOSED OF BY PROJECT	TRANSFERRED TO PROPOSED CONTROLLER
1	SIGNAL WIRES (LUMP SUM)		X	
1	FOUNDATIONS		X	
1	SIGNAL CONDUIT (LUMP SUM)		X	
1	POLE MOUNTED CONTROLLER	X		
1	SPAN WIRE (LUMP SUM)		X	
8	VEHICULAR SIGNAL HEAD	X		
4	WOOD SIGNAL POLES		X	
2	STOP LINE RADAR UNIT	X		
2	DILEMMA RADAR UNIT	X		
1	LAYER 2 ETHERNET SWITCH			X
2	FIBER OPTIC ETHERNET TRANSCEIVER, SHORT RANGE			X
1	CELL MODEM			X
1	POWER METER CABINET	X		
1	METER CABINET FOUNDATION		X	



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PROPOSED VEHICULAR TRAFFIC
SIGNAL HEAD CONFIGURATION
12" HEADS W/BACKPLATES &
TETHER WIRE PER CMS 732



1,2,3,4,6,7

5

8

SIGNAL HEADS:

LEGEND

PROP. VEHICULAR HEAD

PROP. PEDESTRIAN HEAD

SIGNAL POLES:

PROP. ANCHOR/STRAIN POLE

PROP. PEDESTAL PUSHBUTTON

CONTROLLERS
& CABINETS:

PROP. CABINET W/PAD

PULL BOXES:

PROP. PULL BOX

DETECTION:

RADAR ZONE

DILEMMA ZONE RADARS

STOP LINE RADARS

NOTES:

1. THE CONTRACTOR SHALL ENSURE THA ALL PROPOSED SIDEWALKS/PATHWAYS MEET ADA GUIDELINES PER CITY SPECIFICATIONS.

2. THE CONTRACTOR SHALL ENSURE THAT ALL EXISTING SIDEWALKS/PATHWAYS WITHIN THE PROJECT WORK LIMITS MEET ADA GUIDELINES PER CITY SPECIFICATIONS.

3. ALL CABLES, UNLESS SPECIFIED IN THE PLANS, ARE TO BE ROUTED INSIDE THE ANCHOR BASE SIGNAL SUPPORT POLE OR PEDESTAL. CABLES NOT SERVING A GIVEN POLE OR PEDESTAL SHALL NOT BE ROUTED THROUGH THE POLE.

4. POWER, SERVICE AND INTERCONNECT CABLE SHALL BE CONTINUOUS WITH NO SPLICES, EXCEPT AS NOTED.

5. FOR SIGNING AND PAVEMENT MARKINGS, SEE SHEETS 44-47.

6. N/A

7. FOR POLE BASE FOUNDATIONS NOT WITHIN SIDEWALK AREA, THE TOP OF THE POLE BASE FOUNDATION SHALL BE EDGED USING A 1/2" SIDEWALK EDGER INSTEAD OF BEING CHAMFERED.

8. THE CITY OF COLUMBUS SHALL APPROVE BOLT ALIGNMENT, POLE/PEDESTAL FOUNDATION LOCATION, AND ELEVATION PRIOR TO THE CONTRACTOR INSTALLING THE FOUNDATION.

9. TAGGING OF CABLE IN THE PULL BOX IMMEDIATELY ADJACENT TO THE CONTROL CABINET IS NOT REQUIRED EXCEPT FOR TAGGING OF CERTAIN CABLE AS DIRECTED BY THE PROJECT ENGINEER, OR AS PER PLAN.

10. DO NOT ENCASE THE GROUND ROD, THE GROUNDING WIRE, OR THE EMT CONDUIT ENDS IN CONCRETE THAT FALL OUTSIDE OF THE FOUNDATION. FULL ACCESS TO THESE ITEMS MUST BE MAINTAINED AT ALL TIMES. PERMANENTLY MARK THE TOP OF FOUNDATION CONCRETE, WITH A MARKER OR SYMBOL SO THE ROD LOCATION CAN BE IDENTIFIED BY OTHERS.

11. ANY SIGNAL POLE BASE FOUNDATION ADJACENT TO A SIDEWALK AREA SHALL BE FLUSH WITH THE TOP OF THE SIDEWALK UNLESS OTHERWISE STATED. SIGNAL POLE FOUNDATIONS WITHIN SIDEALK AREA SHALL BE PER STD DWG 4161.

12. THE CONTRACTOR SHALL NOT INSTALL POLE FOUNDATIONS UNTIL THE POLE LOCATION AREA IS AT FINISHED GRADE.

13. UNDERGROUND CONDUIT AND TRENCH THAT ARE UNDER PROPOSED SIDEWALK OR ROADWAY AREAS SHALL BE INSTALLED PRIOR TO THE PLACEMENT OF SIDEWALKS OR ANY ASPHALT OR CONCRETE ROADWAY COURSE.

14. THE CONTRACTOR SHALL PROVIDE AND INSTALL POWER CABLE/CONDUIT FROM THE TRAFFIC SIGNAL CONTROLLER CABINET, THROUGH THE POWER METER CABINET AND TO THE POWER/WOOD POLE AT STA 119+86.7, 65.4' RT. COIL ENOUGH CABLE AT THE BOTTOM OF THE POWER POLE TO REACH THE POWER HOOK UP POINT ON THE POLE.

15. N/A

16. N/A

17. N/A

18. THE CONTROL CABINET DOOR SHALL BE LOCATED ON THE (EAST) SIDE OF THE CABINET.

19. THE CABINET FOUNDATION SHALL BE PLACED ADJACENT TO THE BACK OF THE SIDEWALK. THE TOP SURFACE OF THE CABINET FOUNDATION LOCATED NEXT TO SIDEWALK AREAS SHALL BE 4" ABOVE THE SURROUNDING WALK. EXPANSION MATERIAL SHALL BE USED BETWEEN ALL FOUNDATIONS AND ADJACENT SIDEWALKS. WORK PAD SIZE SHALL BE 48"W X 36"D X 4"H.

20. USE A SEPERATE CONDUIT FOR EACH GROUPING OF CABLES UNLESS OTHERWISE INDICATED: ONE CONDUIT FOR 120VAC SIGNAL CABLE (3/C, 7/C, 9/C); ONE CONDUIT FOR POWER; ONE CONDUIT FOR 2 CONDUCTOR CABLE (LOOP & PUSHBUTTON); AND ONE CONDUIT FOR INTERCONNECT/COMMUNICATIONS CABLE (TWISTED PAIR, FIBER OPTICS OR COAX). ANY OTHER LOW VOLTAGE CABLE NOT SPECIFIED ABOVE CAN BE PLACED IN THE 2 CONDUCTOR CABLE CONDUIT. POWER CABLE MUST BE PLACED IN ITS OWN CONDUIT.

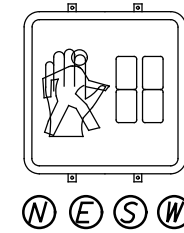
21. UNLESS OTHERWISE SPECIFIED THE FOLLOWING SHALL APPLY. A PREFORMED PVC CONDUIT ELBOW SHALL BE USED TO CHANGE THE PVC CONDUIT DIRECTION BEYOND WHAT ITS NATURAL BENDING FLEX WOULD YIELD. RIGID METAL CONDUIT CAN BE BENT TO FORM AN ELBOW OR ANY OTHER BENDING ANGLE REQUIRED ONLY IF A PROPER CONDUIT BENDING MACHINE IS USED. THE ELBOW RADIUS FOR ANY NON-INTERCONNECT CONDUIT SHALL BE 24" OR LARGER WHEN USED IN A HORIZONTAL OR VERTICAL MANNER. ANY TYPE OF ELBOW USED FOR INTERCONNECT CONDUIT SHALL HAVE A RADIUS OF 36" OR LARGER WHEN USED IN A HORIZONTAL DIRECTION OR IN A VERTICAL DIRECTION WHEN THE TRENCH IS 36" OR DEEPER. IF THE TRENCH IS LESS THAN 36" THEN THE VERTICAL ELBOW RADIUS SHALL BE 24".

22. ALL CLAMPS AND BANDING MATERIAL SHALL BE PAINTED TO MATCH THE SIGNAL SUPPORTS.

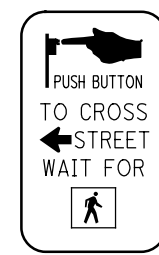
23. N/A

24. N/A

PEDESTRIAN
SIGNAL HEAD CONFIGURATION

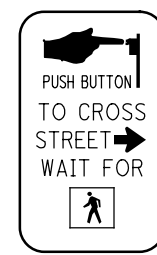


N E S W



R10-3A-9 (L) R10-3A-9 (R)

N/W-3
S/E-2



N/E-1
S/W-2

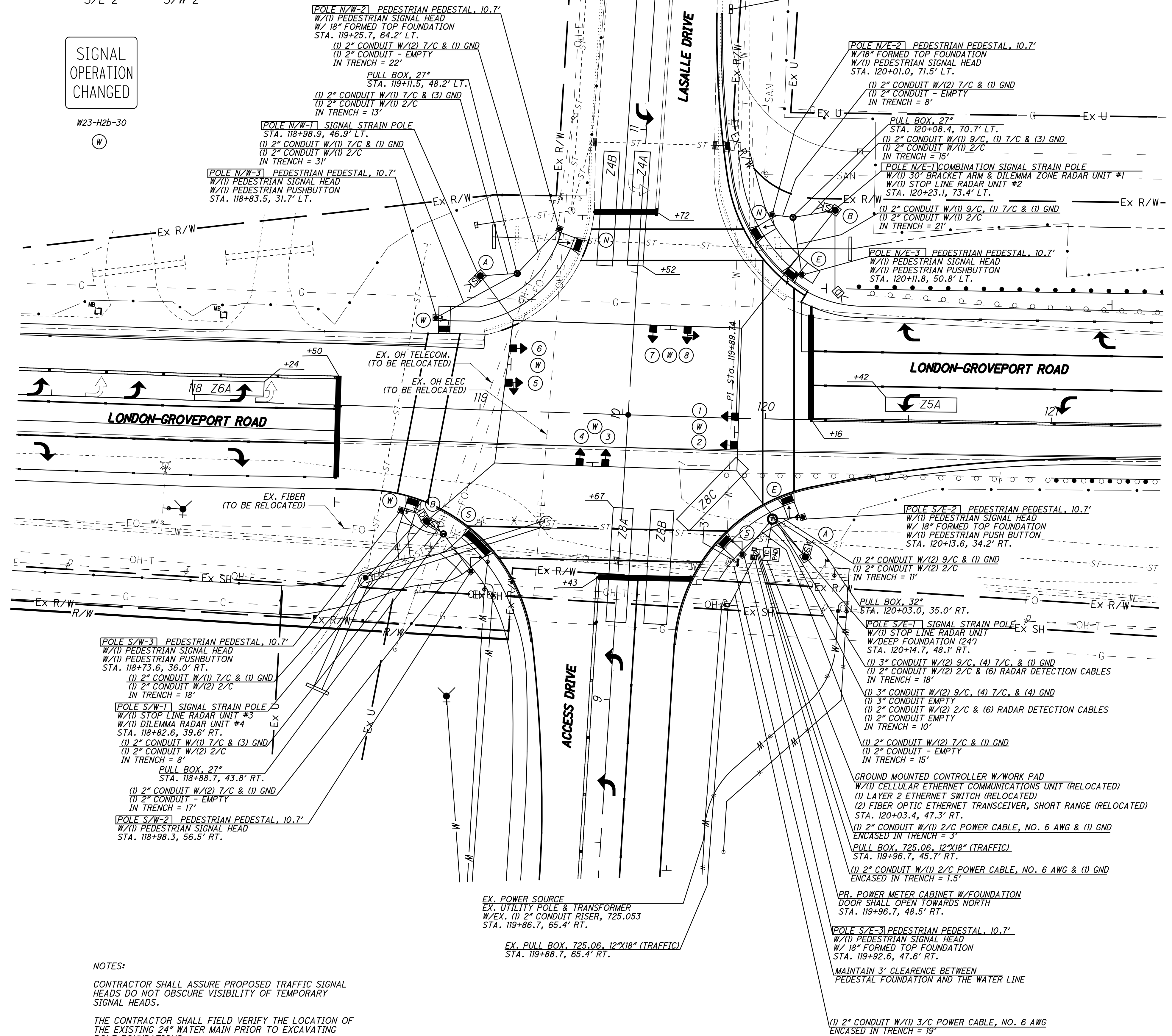
LaSalle Dr
CANTILEVER POLE MTD.
STREET NAME SIGN
D3-1
18" X VARIES

London-Groveport Rd
CANTILEVER POLE MTD.
STREET NAME SIGN
D3-1
18" X VARIES

SIGNAL
OPERATION
CHANGED

W23-H2b-30

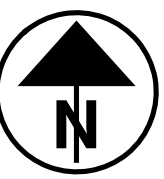
(W)



NOTES:

CONTRACTOR SHALL ASSURE PROPOSED TRAFFIC SIGNAL HEADS DO NOT OBSCURE VISIBILITY OF TEMPORARY SIGNAL HEADS.

THE CONTRACTOR SHALL FIELD VERIFY THE LOCATION OF THE EXISTING 24" WATER MAIN PRIOR TO EXCAVATING POLE FOUNDATIONS.



0 20 40
HORIZONTAL
SCALE IN FEET

CALCULATED
JWS
CHECKED
SMM

TRAFFIC SIGNAL INSTALLATION PLAN
LA SALLE DRIVE AT LONDON-GROVEPORT ROAD

IMPROVEMENTS OF LONDON-GROVEPORT ROAD
FROM 100' WEST OF LA SALLE DR
TO 100' EAST OF LA SALLE DR
LOCKBOURNE ROAD
FROM 2300' SOUTH OF LONDON-GROVEPORT RD
TO 2025' SOUTH OF LONDON-GROVEPORT RD

68
72

3916-E

FIELD WIRING HOOK-UP CHART

SIGNAL HEAD #	INDICATION	FIELD TERMINAL	FLASH
1,2 (EB)	R	φ 6 R	R
	Y	φ 6 Y	
	G	φ 6 G	
3,4 (SB)	R	φ 4 R	R
	Y	φ 4 Y	
	G	φ 4 G	
5 (WBLT)	R	φ 2 R	R
	Y	φ 2 Y	
	G	φ 2 G	
	Y	φ 5 Y	
	G	φ 5 G	
6 (WB)	R	φ 2 R	R
	Y	φ 2 Y	
	G	φ 2 G	
7 (NB)	R	φ 8 R	R
	Y	φ 8 Y	
	G	φ 8 G	
8 (NBRT)	R	φ 8 R	R
	Y	φ 8 Y	
	G	φ 8 G	
	OLA	OLA Y	
N (NORTH)	WALK	G (φ 2)-W	OFF
	DON'T WALK	R (φ 2)-DW	
E (EAST)	WALK	G (φ 8)-W	OFF
	DON'T WALK	R (φ 8)-DW	
S (SOUTH)	WALK	G (φ 6)-W	OFF
	DON'T WALK	R (φ 6)-DW	
W (WEST)	WALK	G (φ 4)-W	OFF
	DON'T WALK	R (φ 4)-DW	

OLA = φ 5, OLA - LS 9

TIMING CHART

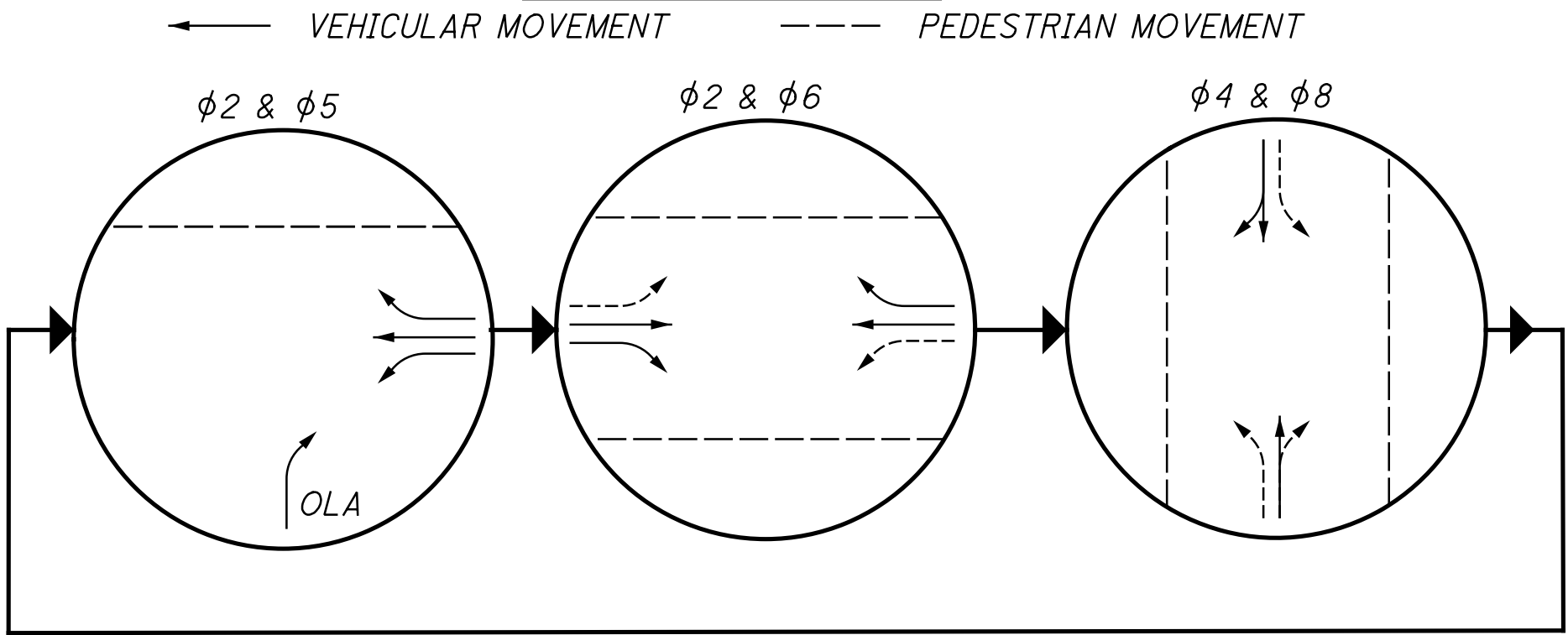
PHASE	1	2	3	4	5	6	7	8
MOVEMENT	-	WB		SB	WBLT	EB		NB
MIN INITIAL	-	23		10	7	29		10
WALK	-	7		7	-	7		7
PED CHG	-	9		12	-	16		17
PASS/ EXT	-	1.0		3.7	3.7	1.0		3.7
YELLOW	-	5.8		3.2	4.8	5.8		3.2
RED CLR	-	3.0		2.2	1.7	3.0		2.2
MAX GRN 1	-	66		36	11	66		36
MAX GRN 2	-	72		42	30	72		42
PED RECALL	-	ON		OFF	OFF	ON		OFF
VEH RECALL	-	MIN		OFF	OFF	MIN		OFF
MEMORY	-	ON		OFF	OFF	ON		OFF

RADAR DETECTION CHART

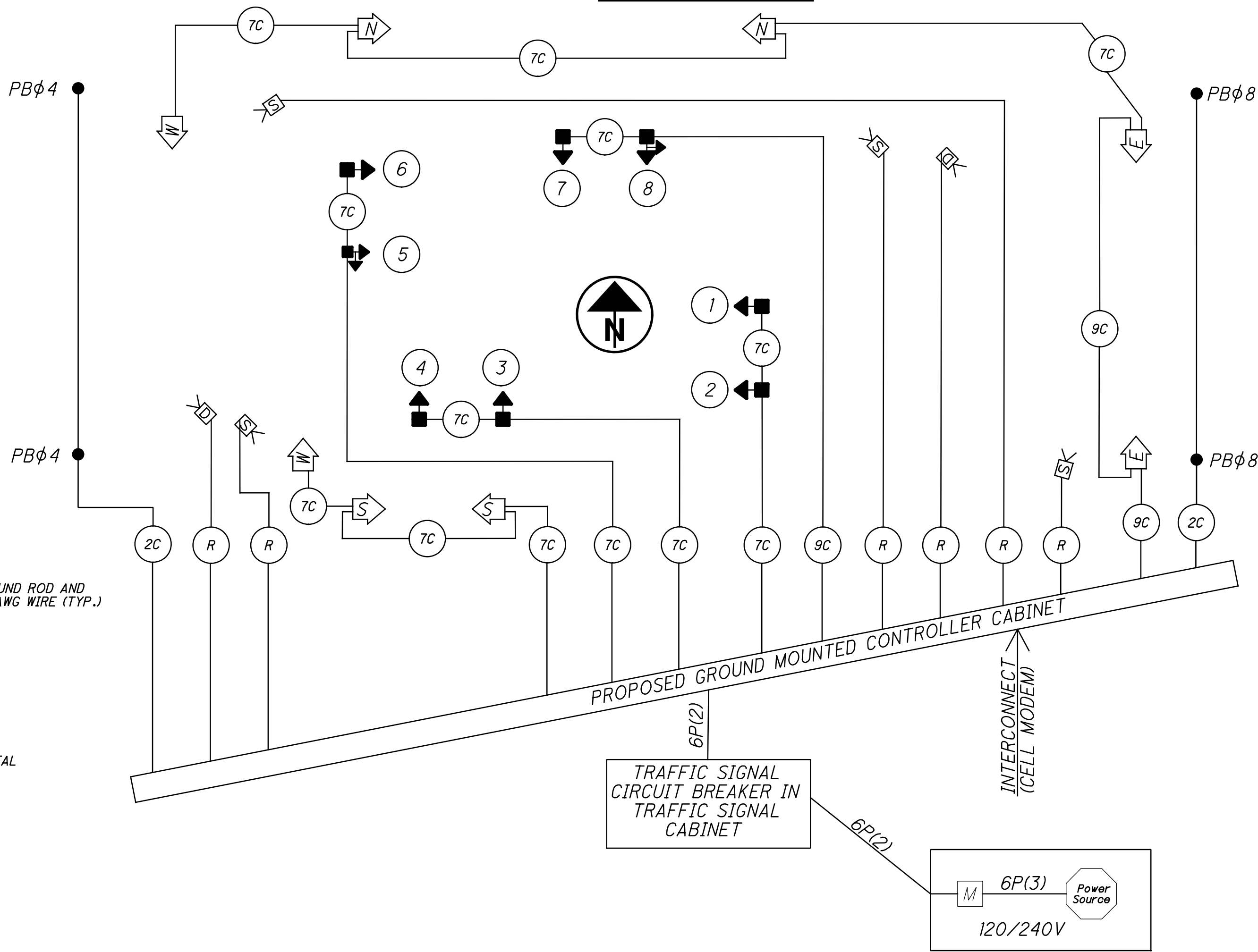
DETECTION ZONE (#)	RADAR DETECTOR (#)	PHASE	DETECTION ZONE SIZE (W' X L')	PRESENCE	PURPOSE	DELAY DATA	
						DELAY (SEC)	INHIBIT DELAY DURING GREEN (PHASE)
-	1	φ 2	1 LANE X 600'	X	DILEMMA ZONE	-	-
Z4A	2	φ 4	5.5' x 40'	X	CALL/EXTEND	3	φ 4
Z4B	2	φ 4	5.5' x 40'	X	CALL/EXTEND	5	φ 4
-	4	φ 6	1 LANE X 600'	X	DILEMMA ZONE	-	-
Z8A	3	φ 8	7' x 40'	X	CALL/EXTEND	3	φ 8
Z8B	3	φ 8	8' x 40'	X	CALL/EXTEND	5	φ 8
Z8C	3	φ 8	6' x 36'	X	CALL/EXTEND	12	φ 8
Z5A	5	φ 5	5' x 25'	X	CALL/EXTEND	3	φ 5
Z6A	6	φ 6	5' x 25'	X	FUTURE	-	φ 6

DILEMMA ZONE SPEED THRESHOLD: >35 MPH

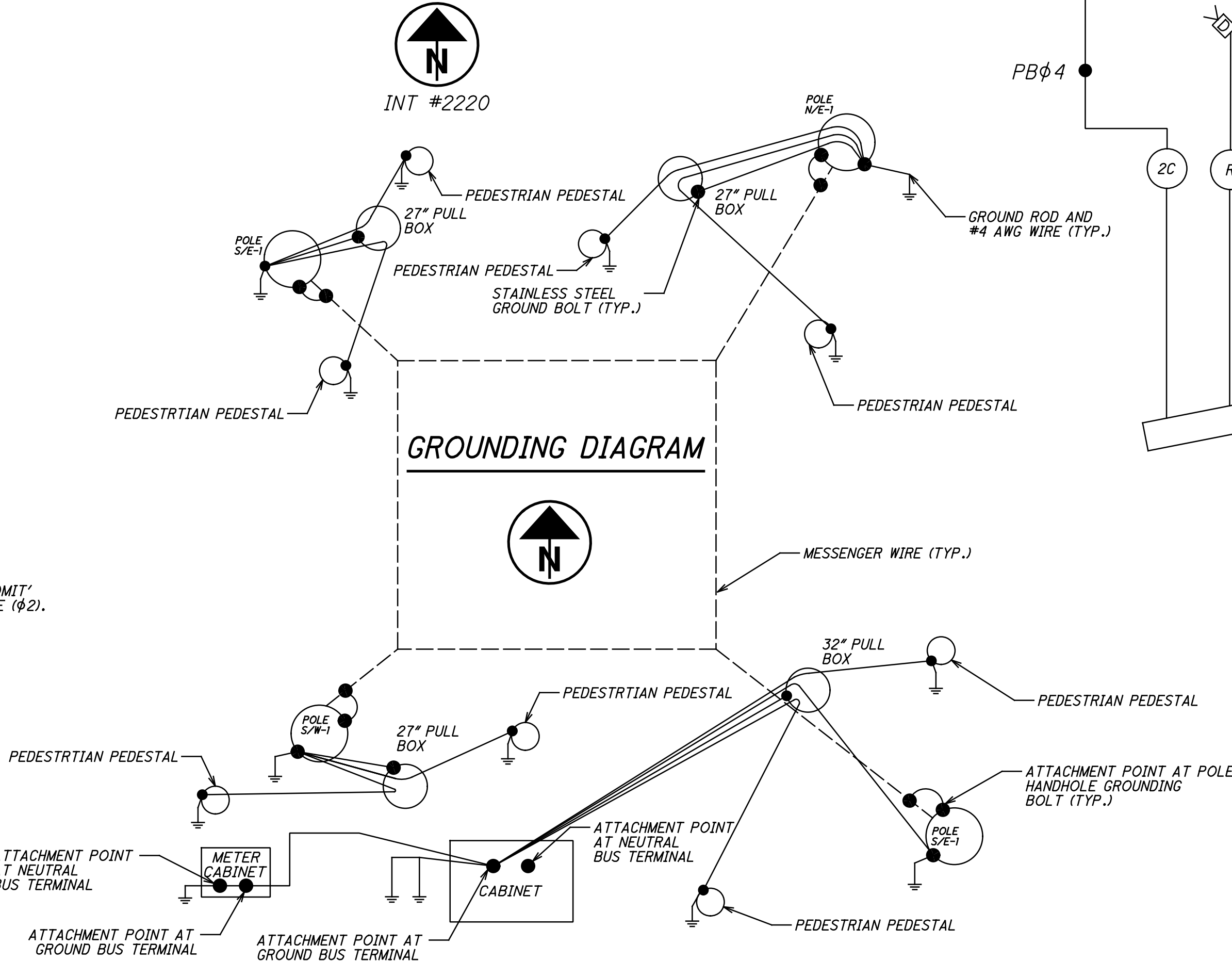
PHASING DIAGRAM



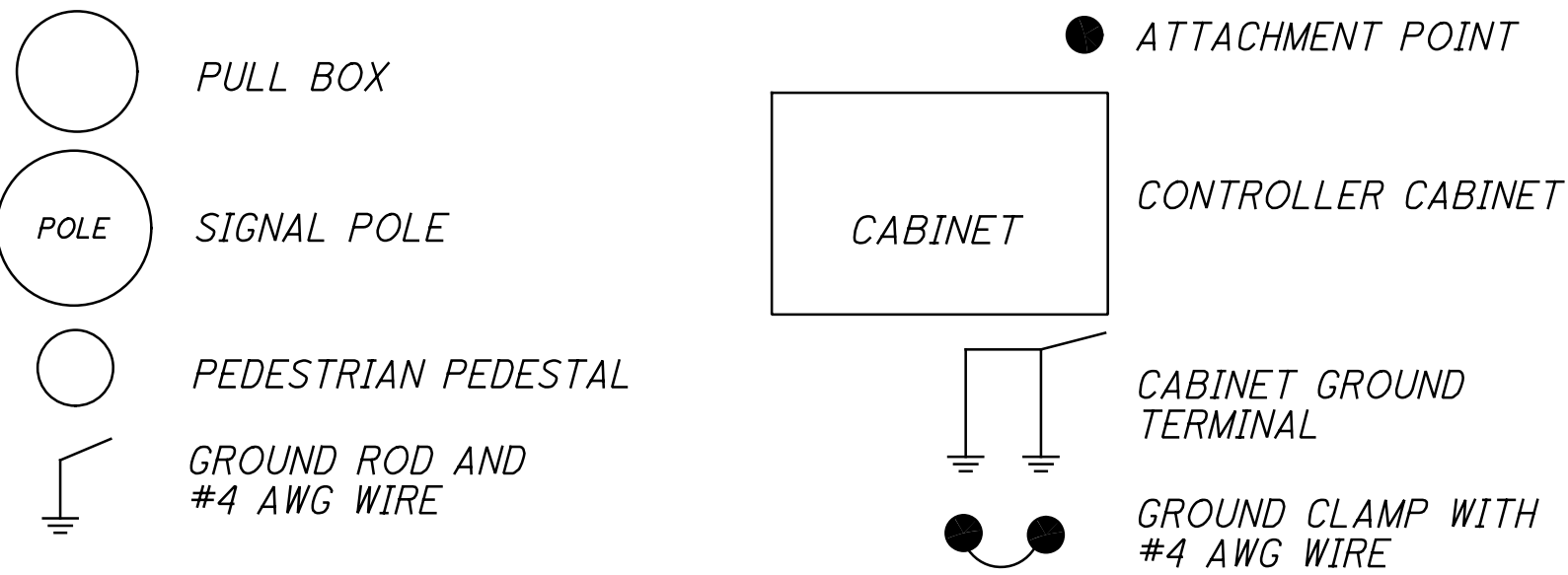
WIRING DIAGRAM



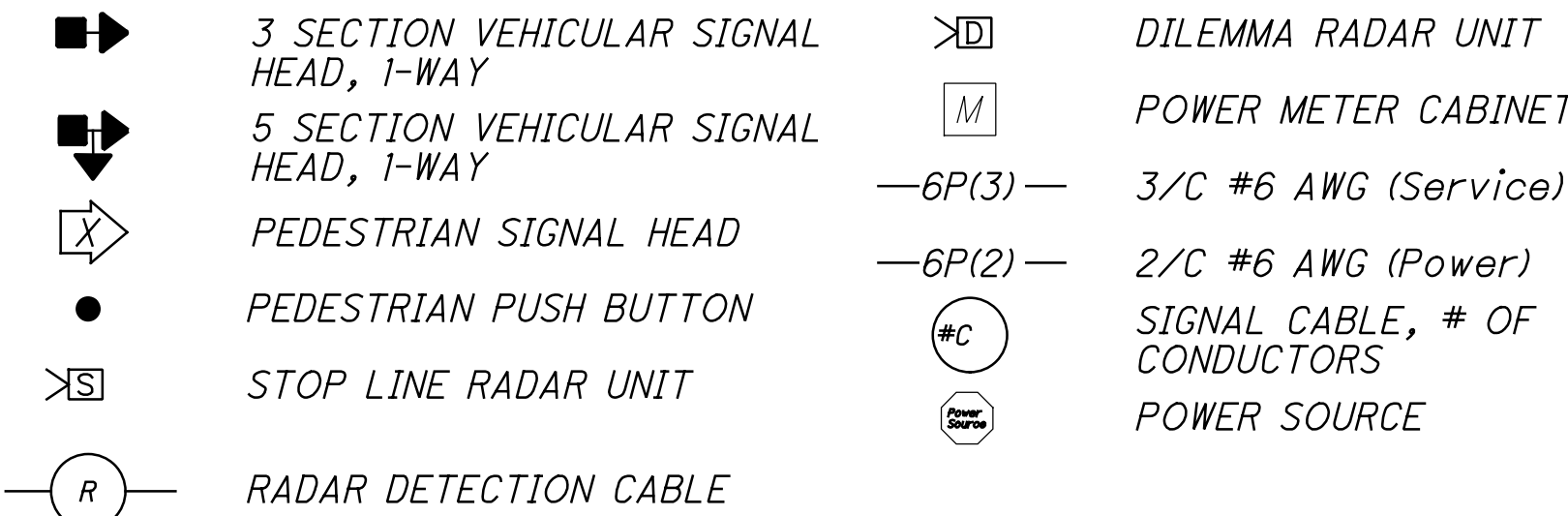
GROUNDING DIAGRAM



GROUNDING DIAGRAM LEGEND



WIRING DIAGRAM LEGEND



- NOTES:
- SET CONFLICT MONITOR FOR 10 SEC FLASH.
 - LOOP DETECTOR LEAD-IN CABLE SHALL BE USED FOR THE PEDESTRIAN PUSHBUTTONS. GROUND THE SHIELD ONLY AT THE CABINET.
 - SET ALL PRESENCE ZONE CHANNELS TO COUNT MODE.
 - N/A
 - BACK PANEL WIRING (FRONT SIDE JUMPERS ONLY)
A1) HARD WIRE 'PED RECYCLE' TO GROUND.
A2) N/A
 - INSTALL A DIODE BETWEEN TERMINALS, φ 2 'PHASE ON' OUTPUT AND φ 1 'OMIT' INPUT, SO THE LEFT TURN PHASE (φ 1) IS OMITTED DURING THE THROUGH PHASE (φ 2).
 - N/A
 - USE DIODES TO PREVENT FEEDBACK ON MULTI-USE TERMINALS.
 - N/A
 - N/A
 - N/A
 - N/A
 - CONTROLLER SOFTWARE PROGRAMMING
A) INITIALIZE IN φ 2 & φ 6 GREEN
B) ENABLE ACTUATED REST-IN-WALK. ACTIVATE PHASE 2 & 6.
C) ENABLE DUAL ENTRY. ACTIVATE φ 4 & φ 8.
D) ENABLE SIMULTANEOUS GAP OUT. ACTIVATE φ 2, φ 4, φ 6 & φ 8.
E) N/A
 - N/A
 - N/A
 - N/A

UPON COMPLETION OF CONSTRUCTION OF THE PROJECT, THE CONTRACTOR WILL BE REQUIRED TO FOLLOW THE PROCEDURES FOR INSPECTION AND ACCEPTANCE OF A STREET LIGHTING PROJECT BY THE DIVISION OF POWER. FOR THIS PROJECT, THE CONTRACTOR WILL BE REQUIRED TO SHOW THE DIVISION OF POWER THAT ALL LUMINAIRES ARE FUNCTIONING PROPERLY. DURING THE FINAL INSPECTION/ACCEPTANCE PROCESS, THE CONTRACTOR WILL BE REQUIRED TO COVER THE PHOTOCELL OF EACH LUMINAIRE IN ORDER TO VERIFY OPERATION OF THE LUMINAIRE TO THE DIVISION OF POWER.

THE STREET LIGHTING SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CURRENT CITY OF COLUMBUS, OHIO "CONSTRUCTION AND MATERIAL SPECIFICATIONS" (2018 EDITION, SECTION 1001, TITLED "STREET LIGHTING"), INCLUDING ALL SUPPLEMENTS THERETO, IN FORCE ON THE DATE OF THE CONTRACT, SHALL GOVERN ALL MATERIALS AND WORKMANSHIP INVOLVED IN THE IMPROVEMENTS SHOWN ON THESE PLANS, EXCEPT AS SUCH SPECIFICATIONS ARE MODIFIED BY THE FOLLOWING SPECIFICATIONS OR BY THE CONSTRUCTION DETAILS SET FORTH HEREIN.

CENTERLINE OF CONDUIT TRENCH TO BE PLACED IN ACCORDANCE WITH THE PLAN DETAILS.

TRENCH LOCATION SHALL BE DEFLECTED AROUND OBSTACLES AS NOTED IN THIS PLAN.

THE PLAN DETAILS SHALL BE CONSIDERED SUPPLEMENTAL TO MIS
SPECIFICATIONS.

ALL ITEMS OF WORK CALLED FOR ON THE PLANS, FOR WHICH NO SPECIFIC METHOD OF PAYMENT IS PROVIDED, SHALL BE PERFORMED BY THE CONTRACTOR AND THE COST OF THESE SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE VARIOUS RELATED ITEMS. THIS INCLUDES, BUT IS NOT LIMITED TO, SUCH INCIDENTAL ITEMS AS RELOCATION OF MAIL BOXES, SAW CUT REMOVAL AND RELOCATION OF SIGN, RAILROAD TIES, SPRINKLERS, RELOCATING ROOF OR SUMPS DRAINS AROUND LIGHT POLE FOUNDATIONS, HAND DIGGING AROUND UNDERGROUND UTILITIES OR OTHER MISCELLANEOUS ITEMS.

CT METER CABINET (MIS-59), AS PER PLAN

PAYMENT FOR THIS ITEM SHALL BE AT THE UNIT BID PRICE PER EACH AND SHALL INCLUDE LABOR, EQUIPMENT AND MATERIAL INCLUDING HARDWARE, INSTALLED COMPLETE.

IN ADDITION TO THE REQUIREMENTS OF MIS-54, THE PULL BOX SHALL BE SIZED 17" X 30" X 18".

CONTROL CENTER	CIRCUIT	LUMINAIRE QTY.	APPROX. LOAD		CIRCUIT FUSE	CIRCUIT FUSE SIZE (AWG)	MAINTAINING AGENCY
			APPROX. WATTS	APPROX. AMPS			
480V PAD MOUNTED LIGHTING CONTROL CENTER (MIS-602)	586	11	100	4	15 A	4	CITY OF COLUMBUS
TOTAL		11	100	4			

SUB-SUMMARY OF LIGHTING ITEMS			
ITEM NO.	QTY	UNIT	ITEM DESCRIPTION
1001	1	EA	PULL BOX (MIS-54), AS PER PLAN
1001	1	EA	CT METER CABINET, 480 VOLT SCP FED LIGHTING CIRCUITS (MIS-59), AS PER PLAN
1001	184	CKT-FT	UNDERGROUND CIRCUIT, 2 WIRE (MIS-403)
1001	1	EA	POLE TO BE WIRED, 2 WIRE (MIS-500)
1001	1	EA	CONTROLLER, 2 WIRE, 480V, PAD MOUNT (MIS-601)
1001	103	FT	2" CONDUIT, CONCRETE ENCASED (MIS-700)
1001	1	EA	FOUNDATION REMOVAL (MIS-900)
1001	-	LUMP	EXISTING UNDERGROUND SYSTEM REMOVAL (MIS-902)

NON-PAYMENT MIS SPECIFICATIONS	
MIS	ITEM DESCRIPTION
1	STREET LIGHT LOCKOUT/TAGOUT (LOTO)
2	GUIDELINES FOR INSPECTION & ACCEPTANCE OF STREET LIGHTING SYSTEMS
3	GUIDELINES FOR STREET LIGHTING "MATERIALS FOR APPROVAL" SUBMITTAL PACKAGES
4	INSPECTION CHECKLIST

MIS-1
MIS-2
MIS-3
MIS-4
MIS-54 (AS PER PLAN)
MIS-59 (AS PER PLAN)
MIS-403
MIS-500
MIS-601
MIS-700
MIS-900
MIS-902

SOUTH CENTRAL POWER
ATTN: MIKE CHALFAN
PHONE: (740) 689-6168

 EXSTING LIGHT POLE & LUMINAIRE

-----EXISTING 2-WIRE CIRCUIT (TO REMAIN), CKT# 586

EXISTING LIGHTING CONTROL CENTER, CKT #586 (TO BE REMOVED)

— PROPOSED 2-WIRE CIRCUIT

☒ PROPOSED 480V PAD MOUNTED TRANSFORMER (SOUTH CENTRAL POWER)

▲ PROPOSED LIGHTING CONTROL CENTER, CIRCUIT #586, 2-WIRE (MIS-601)

M PROPOSED CT METER CABINET (MIS-59), AS PER PLAN

— — EXISTING ROADWAY CENTERLINE

I. MATERIALS

THIS SPECIFICATION DEFINES THE ~~13" X 24" X 18"~~ ^{17" X 30" X 18"} PULL BOX WITH COVER

BOX DEPTH SHALL BE 18 INCHES. THE SIDES SHALL BE STRAIGHT WALLED OR TAPERED INWARDS TOWARDS THE TOP FOR STABILITY. BOX SHALL BE PROVIDED WITH A BOTTOM FLANGE AT LEAST 1-1/4 INCHES WIDE TO PREVENT SETTLING IN FIRM SOIL WHEN SUBJECTED TO SPECIFIED LOADS. TOP REGION OF THE BOX SHALL BE CONFIGURED TO PROVIDE "KEYING IN" TO LOCK THE BOX IN CONCRETE OR BLACKTOP WHEN INSTALLED IN DRIVEWAYS, SIDEWALKS, ETC.

THE LID SHALL BE INTERCHANGEABLE AND SHALL FIT IN ANY BOX BUILT TO THIS SPECIFICATION. LID SHALL BE FASTENED TO THE BOX WITH TWO 1/2"-13 NC STAINLESS STEEL PENTAHEAD BOLTS. THE BOX MAY HAVE A "SELF-LOCATING" OR "FLOATING" NUT MADE OF STAINLESS STEEL AND SHALL BE REPLACEABLE. COVER SURFACE SHALL BE SKID RESISTANT AND SHALL HAVE A MINIMUM COEFFICIENT OF FRICTION OF 0.50.

KNOCKOUTS SHALL BE EASILY REMOVABLE AND LEAVE A SMOOTH EDGE. IF KNOCK-OUTS MUST BE MADE IN THE FIELD, IT SHOULD BE POSSIBLE TO DO SO WITH A SIMPLE TOOL SUCH AS A WOOD HOLE CUTTING SAW.

COVER AND BOX SHALL HAVE A RATING OF H-10 (INCIDENTAL TRAFFIC) AS DETERMINED BY AASHTO (AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS) AND MEET WESTERN UNDERGROUND COMMITTEE STANDARDS, GUIDE 3.6 (W.U.C. 3.6). SHOULD HAVE A MINIMUM VERTICAL TEST LOAD OF 22,500# OVER A 10"x10" AREA, AND BE SO IDENTIFIED ON THE SURFACE ACCORDANCE WITH TIER 15 OF THE ANSI/SCTE 77 2002 "SPECIFICATION FOR UNDERGROUND ENCLOSURE INTEGRITY" STANDARD

IN ORDER TO MEET THE ABOVE REQUIREMENTS FOR HIGH STRENGTH AND LOW WEIGHT, THE PULL BOX SHALL BE MADE OF HDP (HIGH DENSITY POLYMER) AND FRP (FIBERGLASS REINFORCED POLYESTER). MINIMUM COMPRESSIVE STRENGTH OF 20,000 P.S.I. AND SHEET MOLDING SMC FIBERGLASS. BOXES SHALL BE MADE WITH A CLOSED STEEL COMPRESSION MOLDING PROCESS FOR GUARANTEED GEOMETRICS AND DIMENSIONS.

WEIGHT SHALL BE LIMITED TO NOT MORE THAN 50 LBS. FOR THE BOX, AND 35 LBS. FOR THE COVER. THE COVER SHALL BE MADE OF HDPE AND A COMBINATION OF FRP WITH A THICKNESS OF 2 INCHES. IDENTIFICATION "ELECTRIC" SHALL BE PERMANENTLY MOLDED ON THE TOP SURFACE OF THE PULL BOX COVER. IDENTIFICATION OF THE MANUFACTURER, THE PART NUMBER AND YEAR OF MANUFACTURE SHALL BE INCLUDED.

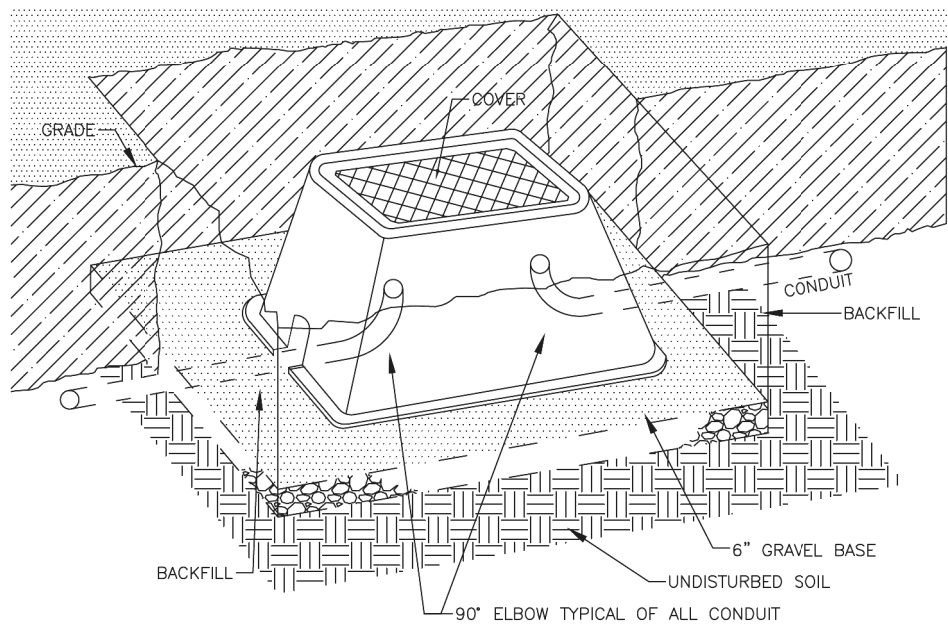
PULL BOX TO BE APPROVED EQUAL IN QUALITY, DESIGN AND PERFORMANCE TO CDR SYSTEM CORPORATION PA10-1324-18 AND SYNERTECH MOLDED PRODUCTS INC. PART # S1324B18AA (COVER #S1324ABH0A02, PENTAHEAD BOLTS #1005), QUAZITE 13" x 24" PG STYLE (COVER #PG1324AH00, BOX #PG1324BA18), CARVER H SERIES 1324 (COVER #H1324-P1, BOX #H1324-13), HIGHLINE-(BOX# PHB1324-13), COVER# PHC1324HE1) 17" x 30" x 18"

II. INSTALLATION

PULL BOXES SHALL BE INSTALLED AS SHOWN ON THE CONTRACT DRAWINGS MIS-4 AND INDICATED IN THE FIELD BY THE ENGINEER. THE PULL BOX SHALL BE SUPPORTED BY A MINIMUM OF 6" DEEP GRAVEL BASE. THE GRAVEL BASE SHALL BE WIDER THAN THE SIDEWALLS OF THE ENCLOSURE. COMPACT BACKFILLS IN LAYERS NOT EXCEEDING 4" USING A MECHANICAL TAMPING DEVICE. THE CONTRACTOR SHALL ENSURE THAT THE PAVEMENT AND SIDEWALKS ARE TO GRADE LEVEL AND IN GRASS/LAWN AREAS THE PULL BOX SHALL BE SET 1-1/2" ABOVE GRADE. THE EXCESS EARTH SHALL BE HAULED AWAY FROM THE SITE.

III. BASIS OF PAYMENT

ITEM	UNIT	DESCRIPTION
MIS-54	EACH	PULL BOX, 13"x24" 17" x 30" x 18"



NOTES

THE BACKFILL SHALL BE POWER TAMPED IN LAYERS NOT EXCEEDING 4 INCHES IN THICKNESS LOOSE MEASUREMENTS COMPLYING WITH SOIL DENSITY COMPACTION REQUIREMENTS UNDER SECTION 203.12 OF THE CITY OF COLUMBUS CONSTRUCTION AND MATERIAL SPECIFICATIONS.

A 6" GRAVEL BASE SHALL BE PROVIDED BELOW THE
PULL BOX

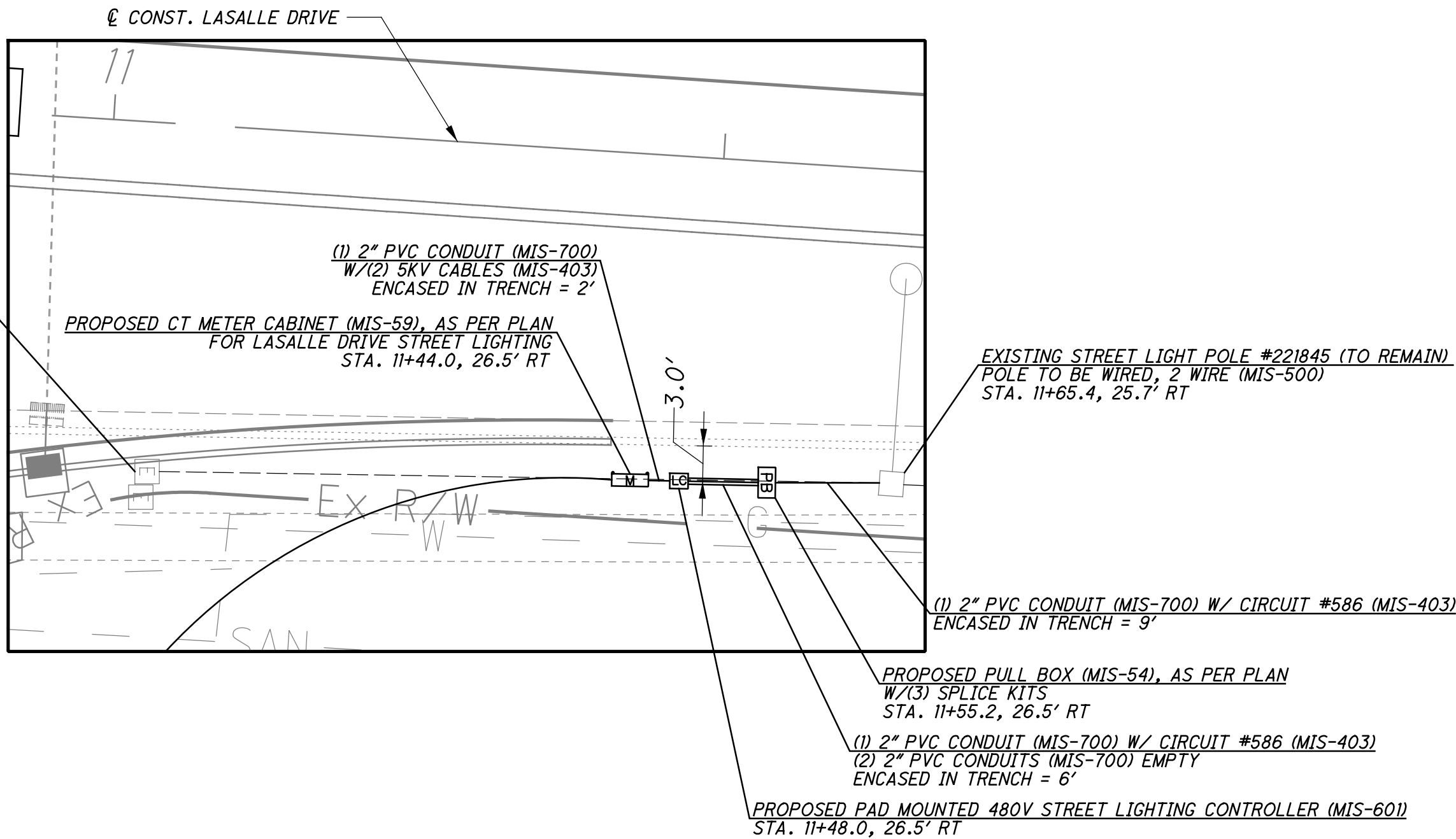
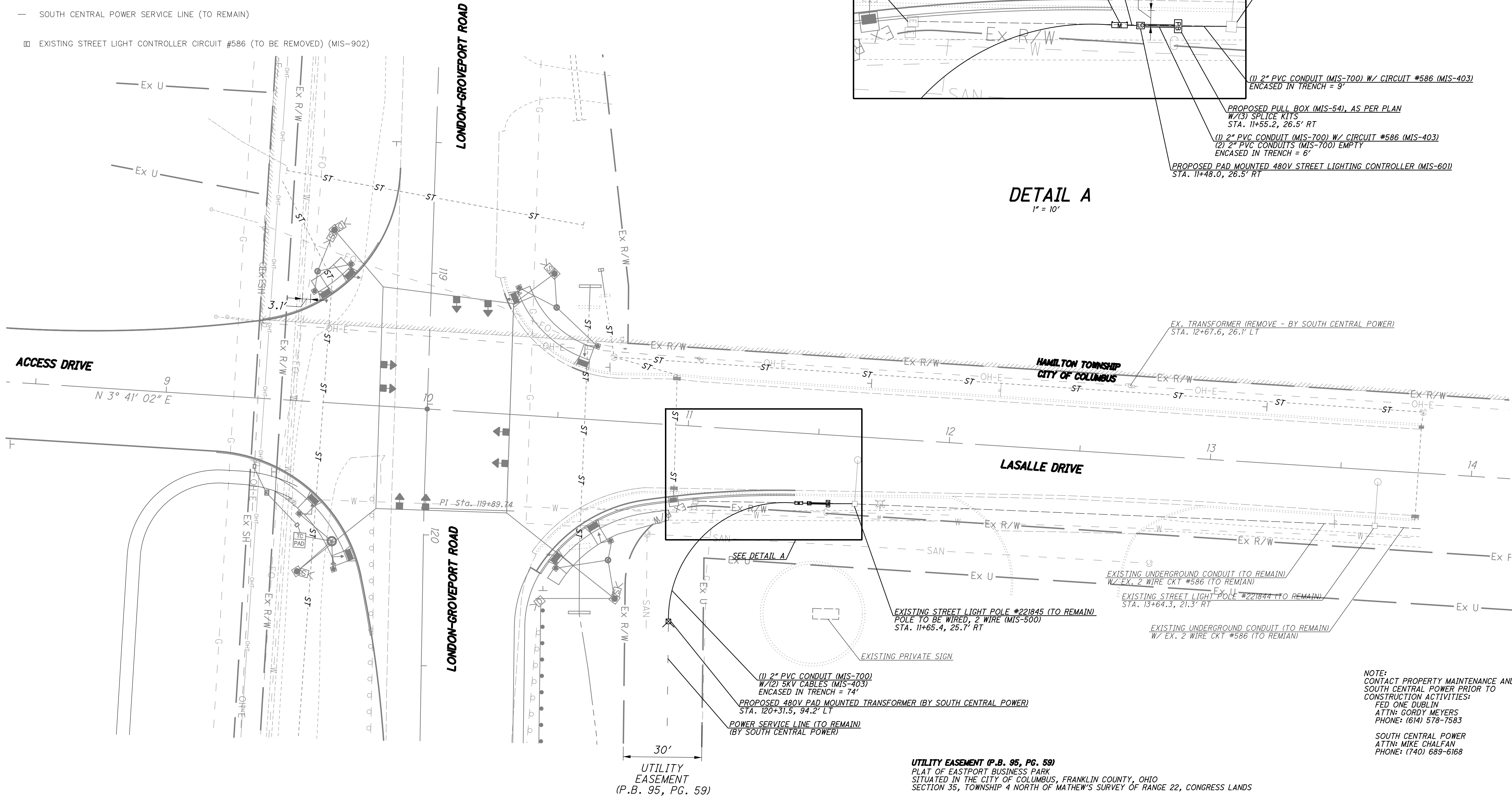
MIS-54

DEPARTMENT OF PUBLIC UTILITIES - DIVISION OF POWER CITY OF COLUMBUS, OHIO			
PULL BOX, 13" X 24" 17" x 30" x 18"			
DRAWN BY: BEN		DATE: 1/1/2018	
APPROVED: <i>Shay R. Willey</i>			
SCALE: NONE	SHEET	1 OF 1	54

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STREET LIGHTING LEGEND

- EXISTING STREET LIGHT POLE (TO REMAIN)
- PROPOSED PAD MOUNTED 480V STREET LIGHTING CONTROLLER (MIS-601)
- PROPOSED CT METER CABINET (MIS-59), AS PER PLAN
- ⚡ PROPOSED 480V PAD MOUNTED TRANSFORMER (BY SOUTH CENTRAL POWER)
- PROPOSED PULL BOX (MIS-54), AS PER PLAN
- PROPOSED 2" PVC (MIS-700) W/CIRCUIT #586 (MIS-403)
- - - - - EXISTING UNDERGROUND CONDUIT (TO REMAIN)
- - - - - SOUTH CENTRAL POWER SERVICE LINE (TO REMAIN)
- ▣ EXISTING STREET LIGHT CONTROLLER CIRCUIT #586 (TO BE REMOVED) (MIS-902)



NOTE:
CONTACT PROPERTY MAINTENANCE AND SOUTH CENTRAL POWER PRIOR TO CONSTRUCTION ACTIVITIES:
FED ONE DUBLIN
ATTN: GORDY MEYERS
PHONE: (614) 578-7583

SOUTH CENTRAL POWER
ATTN: MIKE CHALFAN
PHONE: (740) 689-6168

UTILITY EASEMENT (P.B. 95, PG. 59)
PLAT OF EASTPORT BUSINESS PARK
SITUATED IN THE CITY OF COLUMBUS, FRANKLIN COUNTY, OHIO
SECTION 35, TOWNSHIP 4 NORTH OF MATHEW'S SURVEY OF RANGE 22, CONGRESS LANDS

EASEMENTS ARE HEREBY RESERVED IN, OVER, AND UNDER AREAS DESIGNATED ON THIS PLAT AS "EASEMENT" FOR THE CONSTRUCTION, OPERATION, AND MAINTENANCE OF ALL PUBLIC AND QUASI-PUBLIC UTILITIES ABOVE AND BENEATH THE SURFACE OF THE GROUND AND, WHERE NECESSARY, FOR THE CONSTRUCTION, OPERATION, AND MAINTENANCE OF SERVICE CONNECTIONS TO ALL ADJACENT LOTS AND LANDS FOR STORM WATER DRAINAGE. FURTHERMORE, IN ACCORDANCE WITH THE TERMS AND REGULATIONS OF SECTION 3123 08(C)(8) OF THE COLUMBUS CITY CODES, 1959, THERE IS HEREBY OFFERED AN EASEMENT TO THE CABLE TV INDUSTRY FOR INSTALLATION, OPERATION AND MAINTENANCE OF TV CABLE AND EQUIPMENT.

OHIO DEPARTMENT OF TRANSPORTATION
District 6 Permit Department
400 E. William Street
Delaware, Ohio 43015

NOTICE TO BONDING COMPANY

Bond form must have the following forms attached to be properly executed:

- 1) A certificate of the Superintendent of Insurance of Ohio, that such surety company is authorized to transact business in this state.
- 2) Power of Attorney of the agent of such company, showing his authority to execute said bond on its behalf.
- 3) A recent financial statement of the surety company.

PERFORMANCE BOND

KNOW ALL MEN BY THESE PRESENTS:

THAT WHEREAS,_____ is to be issued

a permit for the construction of roadway improvements along S. R. _____

Section____ in_____ Township,_____ County, Ohio;

WE THE UNDERSIGNED_____

_____ of_____

as principal, and_____

_____ of_____

as surety, are held and firmly bound unto the State of Ohio, Department of
Transportation, in the penal sum of _____

_____ (\$ _____) DOLLARS, for the
Payment of which we hereby jointly and severally bind ourselves, our heirs,
executors, administrators, successors and assigns.

HOWEVER, if said principal fully complies with and performs each and all terms, covenants and conditions of such permit issued on his (its) part to be kept and performed, according to the tenor thereof, and within the time prescribed; and performs the work embraced therein upon the terms proposed and within the time prescribed and in accordance with the permit to which reference is here made, the same being part hereof, as if fully incorporated herein; and indemnifies the State, Country, Municipality and Township, and in the case of a railroad grade separation, the railroad company (or companies) involved, against any damages that may result by reason of any actions of the principal, its agents, representatives, designees, contractors and subcontractors, in making said improvement or doing said work; then this obligation shall be void.

OTHERWISE, the same shall remain in full force and effect; it being expressly understood and agreed that the liability of the surety for any or all claims hereunder shall in no event exceed the penal amount of this obligation as herein stated. The said sureties hereby stipulate and agree that their obligations on the performance bond shall continue in full force and effect

notwithstanding any modifications, omissions, additions or extensions of time in
or to the terms of said permit.

Signed this _____ day of _____ (month), _____ (year).

Principal

In presence of:

BY _____

Name of Surety Company

Signature of Attorney-in-Fact

Address of Attorney-in-fact