

# MARYLAND DEPARTMENT OF TRANSPORTATION MARYLAND TRANSIT ADMINISTRATION FACILITIES ENGINEERING, ADA & SUSTAINABILITY DIVISION PURPLE LINE LIGHT RAIL TRANSIT SYSTEM PRELIMINARY ENGINEERING VOLUME 8 - YARDS AND SHOPS CONTRACT NO. T-1042-0220

## ADA DESIGN CERTIFICATION

"I HEREBY CERTIFY THAT THIS PLAN HAS BEEN DESIGNED IN ACCORDANCE WITH THE REQUIREMENTS OF THE AMERICANS WITH DISABILITIES ACT (ADA).

DATE

DESIGNER'S SIGNATURE

PRINTED NAME

MD. REGISTRATION NO.\_\_\_\_ P.E. R.L.S. OR R.L.A. (CIRCLE)

## DESIGN CERTIFICATION

"I HEREBY CERTIFY THAT THIS PLAN HAS BEEN DESIGNED IN ACCORDANCE WITH THE MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL, THE 2000 MARYLAND STORMWATER DESIGN MANUAL, VOLUMES I AND II INCLUDING SUPPLEMENTS, THE ENVIRONMENT ARTICLE SECTIONS 4-101 THROUGH 116 AND SECTIONS 4-201 AND 215, AND THE CODE OF MARYLAND REGULATIONS (COMAR) 26.17.01 AND 26.17.02 FOR EROSION AND SEDIMENT CONTROL AND STORMWATER MANAGEMENT, RESPECTIVELY"

DATE

DESIGNER'S SIGNATURE

MD. REGISTRATION NO. P.E. R.L.S. OR R.L.A. (CIRCLE)

PRINTED NAME

## OWNERS / DEVELOPER CERTIFICATION

"I/WE HEREBY CERTIFY THAT ALL CLEARING, CONSTRUCTION AND/OR DEVELOPMENT WILL BE DONE PURSUANT TO THIS PLAN AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A MARYLAND DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I HEREBY AUTHORIZE THE RIGHT OF ENTRY FOR PERIODIC ON-SITE EVALUATION BY STATE OF MARYLAND, DEPARTMENT OF THE ENVIRONMENT, COMPLIANCE INSPECTORS."

> ROBERT L. BURRIS, ASSISTANT MANAGER, Facilities Engineering, ADA & Sustainability OWNER/DEVELOPER SIGNATURES

DATE

43667 CERT. NO.

PRINTED NAME AND TITLE

DCN: 2013.12.20.PE.01.P3 Draft RFP Reference Drawings-Vol. 8-00



DATE:

DRAFT: Information shown is based on 30 percent preliminary engineering plans and may be subject to further revision pending refinements to the plans during the completion of the design phase. Any reliance upon any of these plans is made with full understanding of its draft status.

# PRELIMINARY ENGINEERING SUBMISSION DECEMBER 2013

MARYLAND TRANSIT ADMINISTRATION

APPROVED:



T-1042-0220 DRAWING NO. TI-8001 SHEET NO. 1 OF 443

CONTRACT NO.

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GENERAL NOTES
1. HORIZONTAL CONTROL: THIS PROJECT IS ORIENTATED TO THE MARYLAND STATE PLANE COORDINATE SYSTEM NAD 83/91.
2. VERTICAL CONTROL: THE LOCATION AND ELEVATION OF BENCH MARKS ARE SHOWN ON THE PLANS. ALL ELEVATIONS ARE IN FEET AND ARE BASED ON NAVD 1988 DATUM.
3. BASE TOPOGRAPHIC SURVEY INFORMATION FOR THIS CONTRACT WAS ESTABLISHED FROM AERIAL PHOTOGRAMMETRIC MAPPING IN MARCH OF 2007. SUPPLEMENTAL FIELD SURVEYS WERE PERFORMED AND PLOTTED BY PINNACLE MAPPING TECHNOLOGIES IN MARCH OF 2007.
4. ALL INVERT ELEVATIONS ARE APPROXIMATE. INVERT ELEVATIONS OF DRAINAGE INLETS AND PIPES MAY BE MODIFIED AS DIRECTED BY THE ENGINEER TO MEET CONDITIONS ENCOUNTERED DURING INSTALLATION OF DRAINAGE STRUCTURES.
5. ALL DRAINAGE PIPES AND DITCHES SHALL BE CONSTRUCTED ON A UNIFORM GRADE BETWEEN INVERT ELEVATIONS NOTED ON THE PLANS. UNLESS INDICATED OTHERWISE ON THE PLANS OR DETAILS.
6. THE LOCATION AND LENGTH OF DRAINAGE PIPE SHALL BE VERIFIED BY THE CONTRACTOR BEFORE ORDERING.
7. TYPE AND INVERT OF DITCHES ARE NOTED ON THE PLANS. DITCHES WILL BE IN ACCORDANCE WITH THE DETAILS SHOWN ON THE PLANS.
8. THE CONTRACTOR SHALL BE RESPONSIBLE TO GRADE FOR POSITIVE DRAINAGE WITHIN THE PARKING LOT, AT ALL ENTRANCES, AND ALONG ALL CURB LINES IN ACCORDANCE WITH THE PROPOSED DRAINAGE PATTERNS AS SHOWN ON THE PLANS, AND THOSE EXISTING WHERE APPLICABLE. IN NO CASE SHALL THIS REQUIREMENT RELIEVE THE CONTRACTOR FROM HIS RESPONSIBILITY TO CONSTRUCT ALL FACILITIES WITHIN ADA REGULATIONS.
9. ALL EXISTING STORM DRAIN STRUCTURES, SEWER MANHOLES, UTILITY MANHOLES, INLETS, VALVE BOXES, VAULTS, ETC. SHALL BE ADJUSTED BY THE CONTRACTOR TO MEET THE FINISHED GRADE ELEVATION AS NOTED ON THE PLANS, UNLESS THESE APPURTENANCES ARE ABANDONED UNDER THIS CONTRACT.
10.THE EXISTING UTILITIES AND OBSTRUCTIONS SHOWN ON THESE PLANS ARE FROM THE BEST AVAILABLE RECORDS AND SHALL BE VERIFIED BY THE CONTRACTOR TO HIS OWN SATISFACTION PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL NOTIFY ALL CONCERNED UTILITY OWNERS PRIOR TO GRADING OPERATIONS.
11.REPAIRS TO UTILITIES OR PROPERTY DAMAGE AS A RESULT OF CONTRACTOR'S NEGLIGENCE OR METHOD OF OPERATION SHALL BE MADE AT THE CONTRACTOR'S EXPENSE BEFORE PROCEEDING WITH CONSTRUCTION.
12.ANY DISTURBED AREAS NOT PAVED OR LANDSCAPED SHALL RECEIVE 4" TOPSOIL, SEEDING AND MULCH, UNLESS OTHERWISE NOTED ON THE PLANS.
13.THE CONTRACTOR SHALL BE RESPONSIBLE FOR STAGING CONSTRUCTION SUCH THAT A SOIL STOCKPILE SUITABLE FOR FILL MATERIAL AND TOPSOIL CAN BE MAINTAINED ON-SITE.
14.MATERIAL REMOVED DURING CONSTRUCTION INCLUDING ASPHALT, SIGNS, LIGHT POLES, ETC. SHALL BECOME THE CONTRACTOR'S PROPERTY UNLESS OTHERWISE NOTED ON THE PLANS OR IN THE SPECIAL PROVISIONS.
15.THE CONTRACTOR SHALL BE RESPONSIBLE TO RESET ANY SIGN POST OR OTHER APPURTENANCES REMOVED DURING THE CONSTRUCTION TO FACILITATE HIS WORK, EXCEPT WHERE SPECIFIED ON THE PLANS OR AS DIRECTED BY THE ENGINEER.
16.THE CONTRACTOR SHALL PERFORM ALL WORK IN A MANNER THAT WILL INSURE THE SAFETY OF THE GENERAL PUBLIC, COMMUTERS, AND EMPLOYEES OF THE CONTRACTOR, MTA, ETC.
17.ANY DAMAGE TO EXISTING CURBING ADJACENT TO NEW PAVING SHALL BE REPAIRED OR REPLACED IN KIND AT THE CONTRACTOR'S EXPENSE.
18. UNLESS OTHERWISE NOTED, ALL SAW CUTTING SHALL BE FULL DEPTH.
19.PRIOR TO PERFORMING EXCAVATION OR GRADING AT ANY LOCATION, CONTACT "MISS UTILITY", 1-800-257-7777 AT LEAST 48 HOURS IN ADVANCE OF THE PROPOSED WORK.
20.THE CONTRACTOR SHALL NOTE THE HISTORIC NATURE OF THE SURROUNDING COMMUNITY. THE CONTRACTOR SHALL MAKE EVERY EFFORT TO MINIMIZE NOISE FROM CONSTRUCTION ACTIVITY ON-SITE.
21.A COPY OF THE CONTRACTOR'S SITE SPECIFIC PROJECT SAFETY PLAN SHOULD BE SUBMITTED TO THE OFFICE OF SAFETY & RISK MANAGEMENT (OSRM) FOR REVIEW AND COMMENT. A COPY SHOULD BE FORWARDED TO DENNIS RAFFERTY/DAVID AUCHU IN THE OFFICE OF SAFETY & RISK MANAGEMENT. THE CONTRACTOR SHALL NOT BEGIN ANY WORK ACTIVITIES ON SITE UNTIL THE PROJECT SAFETY PLAN HAS BEEN REVIEWED AND FOUND TO BE ACCEPTABLE BY REPRESENTATIVES FROM THE OSRM.







22. OCS SUPPORT LOCATIONS ARE PRESENTED ON THE CIVIL PLANS FOR GRAPHICAL REPRESENTATION ONLY. AS-DESIGNED SUPPORT LAYOUTS AND CONFIGURATIONS TO BE DEVELOPED IN FINAL DESIGN.

# ADA SUMMARY

REFER TO ADA GENERAL NOTES SHEET

# STATIONING KEY



PROFESSIONAL CERTIFICATION I hereby certify that these documents were prepared or approved by me and that I	DRAFT: Information shown is based on 30 percent preliminary engineering plans and may be subject to further revision pending refinements to the plans during	RAWN DESGN
accuments were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland License No. Expiration Date	further revision pending refinements to the plans during the completion of the design phase. Any reliance upon any of these plans is made with full understanding of its draft status.	APPR CHECK DRAW

BY-OTHEF

# LEGEND - EXISTING

	EXISTING	BUILDING
	EXISTING	SIDEWALK
	EXISTING	RIGHT OF WAY
• • •	EXISTING	WETLAND BOUNDARY
	EXISTING	TRAFFIC SIGNAL TO REMAIN
	EXISTING	TRAFFIC SIGNAL TO BE REMOVED
	EXISTING	ACTIVE RECOVERY WELL IN LOWER ZONE
	EXISTING	ACTIVE RECOVERY WELL IN UPPER ZONE
	EXISTING	LEFT TURN ELIMINATED WITH PROPOSED IMPROVEMENTS
$\overline{\mathbb{N}}$	EXISTING	TRAFFIC PATTERN
LE	GEND	- PROPOSED
	PROPOSED	BUILDING DISPLACEMENT
RS	PROPOSED PROPOSED	BUILDING DISPLACEMENT IMPROVEMENTS BY OTHERS
	PROPOSED PROPOSED PROPOSED	BUILDING DISPLACEMENT IMPROVEMENTS BY OTHERS CONCRETE
RS RS L L L L L L L L L L L L L	PROPOSED PROPOSED PROPOSED PAVEMENT	BUILDING DISPLACEMENT IMPROVEMENTS BY OTHERS CONCRETE REMOVAL
	PROPOSED PROPOSED PROPOSED PAVEMENT PERMEABLE	BUILDING DISPLACEMENT IMPROVEMENTS BY OTHERS CONCRETE REMOVAL E PAVEMENT
	PROPOSED PROPOSED PROPOSED PAVEMENT PERMEABLE PROPOSED	BUILDING DISPLACEMENT IMPROVEMENTS BY OTHERS CONCRETE REMOVAL E PAVEMENT FULL DEPTH ASPHALT PAVEMENT
	PROPOSED PROPOSED PROPOSED PAVEMENT PERMEABLE PROPOSED OR MILL A	BUILDING DISPLACEMENT IMPROVEMENTS BY OTHERS CONCRETE REMOVAL E PAVEMENT FULL DEPTH ASPHALT PAVEMENT WEDGE/LEVEL AND OVERLAY
	PROPOSED PROPOSED PROPOSED PAVEMENT PERMEABLE PROPOSED OR MILL A	BUILDING DISPLACEMENT IMPROVEMENTS BY OTHERS CONCRETE REMOVAL E PAVEMENT FULL DEPTH ASPHALT PAVEMENT WEDGE/LEVEL AND OVERLAY CATENARY POLE
	PROPOSED PROPOSED PROPOSED PAVEMENT PERMEABLE PROPOSED OR MILL A PROPOSED PROPOSED	BUILDING DISPLACEMENT IMPROVEMENTS BY OTHERS CONCRETE REMOVAL E PAVEMENT FULL DEPTH ASPHALT PAVEMENT WEDGE/LEVEL AND OVERLAY CATENARY POLE TRAFFIC SIGNAL
	PROPOSED PROPOSED PROPOSED PAVEMENT PERMEABLE PROPOSED OR MILL A PROPOSED PROPOSED PROPOSED	BUILDING DISPLACEMENT IMPROVEMENTS BY OTHERS CONCRETE REMOVAL E PAVEMENT FULL DEPTH ASPHALT PAVEMENT WEDGE/LEVEL AND OVERLAY CATENARY POLE TRAFFIC SIGNAL TRAFFIC PATTERN

	CONTRACT NO.	
PRELIMINARY ENGINE	T–1042–0220	
PURPLE LINE LIGHT	DRAWING NO.	
		GN-8002
GENERAL NOTES AND	LEGEND	SHEFT NO
		2 = 112
DATE: DECEMBER 2013	SCALE: NONE	<u> </u>



# ABBREVIATIONS

F	FAR FACE	PROP	P
G H	FIRE HYDRANT	PSI	P
L	FLOOR, FLOWLINE		С
R T	FRAME		P
, /T	FUUL, FEEL Future track	R	R
UT	FUTURE	RCEP	R
ALV	GALVANIZED	RCP	E
M	GAS METER	REF	R
ND R	GRADE	REINF	R
SV	GAS VALVE	REQD	R
W	GUY WIRE		R
	HEIGHT	RR	R
IDPF	HAND BUX	RT	R
MA	HOT MIX ASPHALT	R/W	R
ORIZ	HORIZONTAL	SAN	S S
P	HIGH POINT	SB	S
/ W	INIFT	SCE	Ş
D	INSIDE DIAMETER	SCH	E S
Ν, "	INCH	SD	S
NT		S/E	S
N V B	INVERT INVERTION BOX	SEC, "	S
B	POUND	SECT	S S
С	TOTAL LENGTH OF CIRCULAR	S.F.	S
F	LINFAR FFFT	SG	S
OD	LIMIT OF DISTURBANCE	SHA	S
Р	LOW POINT	SHLU Sht	S S
PLG	LEAD PLUG (SURVEY MONUMENT)	SIG	S
R RT	LUNG RADIUS LIGHT RAIL TRANSIT	SLP	S
RV	LIGHT RAIL VEHICLE	SP	S
Т	LEFT	STA	5 5
	MARYLAND RAIL COMMUTER	STL	S
1A X 1H		STR	S
IIN	MINIMUM	SURF	S
IIN• ′	MINUTE	SW SZW	S S
IISC	MISCELLANEOUS	SWM	S
IUN IPH	MUNUMENI MILES PER HOUR	ТВ	Т
ISL	MEAN SEA LEVEL	Тс	T
ITA	MARYLAND TRANSIT ADMINISTRATION	T/C	T
	NORTH	TEL	Т
IZ A IB		TEMP	T
I/E	NORTH LINE - EAST TRACK		I T
IF	NEAR FACE	TOPO	T
I/F	NOW OR FORMERLY	TP	Т
IN. #	NUMBER	T/P	T
ITS	NOT TO SCALE		I T
/ W	NORTH LINE-WEST TRACK	TR SIG	T
	OUTSIDE DIAMETER	Τ.S.	Т
	UPPUSITE PAVEMENT	ТҮР	Т
°C	POINT OF CHANGE FROM		U
	TANGENT TO CIRCULAR CURVE	V	V
ruu PED	PEDESTRIAN	VAR	۷
ERF	PERFORATED	VCP	V
ERM	PERMANENT	VERI W	V W
GE	PROFILE GRADE ELEVATION	W/	W
оL Ч	POINT OF INTERSECTION	W/O	W
•	OF TWO TANGENTS	WAT	W
ΥK K	PARKER-KALON NAIL (SURVEY MARKER)	WH <f< td=""><td>W</td></f<>	W
ĸы	PROPERTY LINE	WM	W
- 'LAT	PLATFORM	WMATA	W
OB	POINT OF BEGINNING	WP	l W
	POINT ON CURVE	WS	W
	POINT ON LINF	WV	W
OT	POINT ON TANGENT	X-ING	C
RC	POINT OF REVERSE CURVES	x-uver	С

# MARYLAND DEPARTMENT OF TRANSPORTATION







			SYMB
ROPOSED	EXISTING		PROPOSED
DINT OF CHANGE FROM IRCULAR CURVE TO TANGENT		RIGHT-OF-WAY	
ETROLEUM VALVE DLYVINYL CHLORIDE	₽₽	PROPERTY LINE	₽
ADIUS EINFORCED CONCRETE		PARCEL NUMBER	#500
LIPTICAL PIPE EINFORCED CONCRETE PIPE		MATCHLINE AND SECTION LINE	
EINFORCED		TRACK CENTER LINE	<u> </u>
	<i>Q</i>	CENTER LINE	
AILROAD IGHT		BASE LINE	<u> </u>
IGHT OF WAY DUTH		POINT OF INTERSECTION OF TANGENT	-s
ANITARY DUTHBOUND FABILIZED CONSTRUCTION		STATION EQUATION	STA AH = STA BK
CHEDULE	TRAV PT. 10	PRIMARY HORIZONTAL CONTROL - TRA	VERSE POINT
JUTH LINE - EAST TRACK	< TBM	BENCH MARK	
ECTION ILT FENCE	➡ ТВ 18	TEST BORING 18	
DUARE FOOT JBGRADE	<b>TP</b> 22	TEST PIT	
TATE HIGHWAY ADMINISTRATION		STRUCTURE OUTLINE	
HEET IGNAL	xx	METAL FENCE (CHAIN LINK)	xx
LOPE PACING		ORNAMENTAL METAL FENCE	
TATION TANDARD	oo	WOOD FENCE	oo
IEEL IRUCTURE		RALLROAD TRACKS	<u>++++++++++++++</u>
JRFACE IDE WALK			
FORMWATER MANAGEMENT	CC	CONCRETE CURD AND CUTTER	
ANGENT LENGTH OF IRCULAR CURVE	C & G	CUNCRETE CURB AND GUITER	
DP OF CURB ELEPHONE		DETECTABLE WARNING SURFACE	
EMPORARY DP OF GROUND	WALL	WALLS	WALL
DP OF GRATE DPOGRAPHY	- * * * * * * * * * * *	TRAFFIC BARRIER	
EST PIT DP OF PAVEMENT	o <u>    o    o</u>	BILLBOARD OR LARGE SIGN	©©
JP OF RAIL RACK	OR ⊙⊙	SIGNS - NON-TRAFFIC	
OP OF STRUCTURE	4	SIGNS - TRAFFIC	
NDERDRAIN NESS NOTED OTHERWISE		CUT SLOPE - TOP	⊢ — — C — — →
ELOCITY		FILL SLOPE - TOE	⊢ — F — →
ITRIFIED CLAY PIPE			
IST ITH ITHOUT	C	DETAIL NO. 2 A102	
AIER ESTBOUND	CI	JRRENT SHEET	
AREHUUSE ATER METER			TITLE
RANSIT AUTHORITY	DETAIL		
ATER SURFACE		A102 SCALE: 1"=30' - DR/ REF: A105	AWING SCALE
ROSSING ROSSOVER	CURRENT	T SHEET	REFERENCE
PROFESSIONAL CERTIFICATION		ULIAILS	Z
I hereby certify that these documents were prepared or	DRAI prelim	FT: Information shown is based on 30 ninary engineering plans and may be	<i>D</i> percent $\exists$ subject to $\exists$
approved by me, and that I am a duly licensed professional	further the con	revision pending refinements to the p npletion of the design phase Any rel	lans during
the State of Maryland	any a	of these plans is made with full under, of its draft status.	standing
License No. Expiration Date		-j 115 on off Stollas.	АРР

OLS		
EXISTING		PROPOSED
140	MAJOR CONTOUR LINE	140
141	MINOR CONTOUR LINE	1 4 1
103.1 ×	SPOT ELEVATION	103.1
<u>EL</u>	HIGH WATER	▼_EL•
	DITCH	<b>&gt;</b> •>•
	SWALE	
<b>►</b>	SURFACE FLOW DIRECTION	— · — · <b>→</b>
27″ RCP	STORM DRAIN LINE	27″ RCP — ↓ _ ►
— — UD— — → ·	UNDERDRAIN LINE	——UD►-
======	DROP INLET, CATCH BASIN OR DRAIN	
	CULVERT WITH HEADWALLS	
E G SD SS T W	MANHOLE (TYPE AS NOTED)	∎ ⊚(M-1)
⊂ 0 — san — — — — san —	CLEANOUT	C O SAN — _
₩M — — — 8 ″ w W _ — — — †	WATER LINE	<u>12″w</u> W
GV 	GAS LINE	<u>6″c</u> _
$\frac{8}{san}^{\prime\prime}\frac{S}{san}\frac{Ss}{san}$	SANITARY LINE	$\frac{12''_{SAN}S_{}}{S_{AN}S_{}}$
	UNDERGROUND TELEPHONE LINE	2″ <u>T</u>
-1	OVERHEAD TELEPHONE LINE	-1 T -+
- — — — Е — — — — — — нех	UNDERGROUND ELECTRIC LINE	- — — — E — — — — –
—1 — Е -ф	OVERHEAD ELECTRIC LINE	—1-те -ф
ε <sup>JB</sup> JB	ELECTRICAL JUNCTION BOX	
— — E — — ÆM — — — — –	ELECTRIC METER	
- — — — F0 — — — — —	UNDERGROUND FIBER OPTIC LINE	FO
— F0 —	OVERHEAD FIBER OPTIC LINE	—1——— F0 —
-O- POLE NO.	UTILITY POLE	-
-ф-	LIGHT POLE	
, ⊢—∲Я—-Ѽ₂ЕН , МА	FIRE HYDRANT	」 ⊢ ― -樹 ― -叠□ F H 」 WM
	ITEM TO BE REMOVED	$\mathcal{A}$



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SHEET NO.	DWG. NO.	DESCRIPTION	SHEET NO.	DWG. NO.	DESCRIPTION	SHEET NO.	DWG. NO.	DESCRIPTION
GENERAL		GS	LYTTON	SVILLE YA	RD FACILITY (CONTINUED)	LYTTON	SVILLE Y	ARD FACILITY (CONTINUED)
1 2 3 4 5 6 7	T I -8001 GN-8001 GN-8002 GN-8003 G I -8101 G I -8102 G I -8103	TITLE SHEET KEY MAP GENERAL NOTES AND LEGEND CIVIL ABBREVIATIONS AND SYMBOLS INDEX OF SHEETS - VOLUME 8 SHEET 1 INDEX OF SHEETS - VOLUME 8 SHEET 2 INDEX OF SHEETS - VOLUME 8 SHEET 3	70 71 72 73 74 75 76	AR-L32 AR-L40 AR-L41 AR-L42 AR-L43 AR-L50 AR-L51	LYTTONSVILLE YARD FACILITY OFFICE - BUILDING ELEVATIONS LYTTONSVILLE YARD FACILITY OVERALL SECTIONS LYTTONSVILLE YARD FACILITY WASH BUILDING - ELEVATIONS AND SECTIONS LYTTONSVILLE YARD FACILITY OFFICE - BUILDING SECTIONS LYTTONSVILLE YARD FACILITY OFFICE WALL SECTIONS LYTTONSVILLE YARD FACILITY ENLARGED TOILET ROOM PLANS LYTTONSVILLE YARD FACILITY ENLARGED TOILET ROOM PLANS	1 42 1 43 1 44 1 45 1 46 1 47 1 48	EL -L06 EL -L07 EL -L08 EL -L09 EL -L10 EL -L11 EL -L12	LYTTONSVILLE YARD FACILITY PARKING DECK LEVEL PLAN - LIGHTING LYTTONSVILLE YARD FACILITY OFFICE FIRST FLOOR PLAN - LIGHTING LYTTONSVILLE YARD FACILITY OFFICE SECOND FLOOR PLAN - LIGHTING LYTTONSVILLE YARD FACILITY WASH BUILDING PLAN - LIGHTING LYTTONSVILLE YARD FACILITY YARD LEVEL FLOOR PLAN - POWER LYTTONSVILLE YARD FACILITY OFFICE FIRST FLOOR PLAN - POWER LYTTONSVILLE YARD FACILITY OFFICE SECOND FLOOR PLAN - POWER
	SVILLE YA		77 78	AR-L52 AR-L53	LYTTONSVILLE YARD FACILITY VANITY AND MISCELLANEOUS DETAILS LYTTONSVILLE YARD FACILITY ENLARGED PLANS	149 150	EL-L13 EL-L14	LYTTONSVILLE YARD FACILITY WASH BUILDING PLAN - POWER LYTTONSVILLE YARD FACILITY YARD STORAGE PLAN - FIRE ALARM
9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44	CV-L02 CV-L03 CV-L04 CV-L05 CV-L05 CV-L07 CV-L07 CV-L09 CV-L10 CV-L12 CV-L12 CV-L13 CV-L14 DR-L01 DR-L02 DR-L03 DR-L03 DR-L04 DR-L05 LS-L02 LS-L03 TW-L01 TW-L03 TW-L01 TW-L03 TW-L03 TW-L03 TW-L04 TW-L05 TW-L03 TW-L04 TW-L05 TW-L04 TW-L05 TW-L07 TW-L07 TW-L08 TW-L07 TW-L08 TW-L09 TW-L09 TW-L10 TW-L11 TW-L12 TW-L13 TW-L14 TW-L14	LYTTONSVILLE YARD FACILITY EXISTING CONDITIONS PLAN - SHEET 2 OF 3 LYTTONSVILLE YARD FACILITY EXISTING CONDITIONS PLAN - SHEET 3 OF 3 LYTTONSVILLE YARD FACILITY DEMOLITION PLAN - SHEET 1 OF 3 LYTTONSVILLE YARD FACILITY DEMOLITION PLAN - SHEET 2 OF 3 LYTTONSVILLE YARD FACILITY CIVIL SITE PLAN - SHEET 1 OF 3 LYTTONSVILLE YARD FACILITY CIVIL SITE PLAN - SHEET 1 OF 3 LYTTONSVILLE YARD FACILITY CIVIL SITE PLAN - SHEET 3 OF 3 LYTTONSVILLE YARD FACILITY CIVIL SITE PLAN - SHEET 1 of 3 LYTTONSVILLE YARD FACILITY CIVIL SITE PLAN - SHEET 1 of 3 LYTTONSVILLE YARD FACILITY SITE / UTILITY PLAN - 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**S** MARYLAND TRANSIT ADMINISTRATION Maryland



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PROFESSIONAL CERTIFICATION       I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland       DRAFT: Information shown is based on 30 percent preliminary engineering plans and may be subject to further revision pending refinements to the plans during the completion of the design phase. Any reliance upon any of these plans is made with full understanding of its draft status.       Market	APPR CHECK DRAWN DESGN
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	CONTRACT NO.
PRELIMINARY ENGINEERING	T–1042–0220
PURPLE LINE LIGHT RAIL	DRAWING NO.
INDEX OF SHEETS - VOLUME 8	GI–8101
SHEET 1	SHEET NO.
DATE: DECEMBER 2013 SCALE: NONE	_5_ OF _443_

SHEET NO.	DWG. NO.	DESCRIPTION	SHEET NO.	DWG. NO.	DESCRIPTION	SHEET NO.	DWG. NO.	DESCRIPTION
GLENRID	GE YARD	& SHOP FACILITY (CONTINUED)	GLENRID	GE YAR	D & SHOP FACILITY (CONTINUED)	GLENRID	GE YARI	D & SHOP FACILITY (CONTINUED)
211	AR-G001	GLENRIDGE YARD & SHOP FACILITY ARCHITECTURAL ABBREVIATIONS AND LEGEND	283	AR-G805	GLENRIDGE YARD & SHOP FACILITY ROOM FINISH SCHEDULE	355	PL-G110	GLENRIDGE YARD & SHOP FACILITY FIRST FLOOR PLUMBING PLAN - SEGMENT F
212	AR-G002	GLENRIDGE YARD & SHOP FACILITY BUILDING CODE ANALYSIS	284	ST-G001	GLENRIDGE YARD & SHOP FACILITY GENERAL NOTES AND ABBREVIATION 1 OF 2	356	PL-G111	GLENRIDGE YARD & SHOP FACILITY SECOND FLOOR PLUMBING PLAN - SEGMENT A
213	AR-G003	GLENRIDGE YARD & SHOP FACILITY EQUIPMENT NOTES AND ABBREVIATIONS	285	ST-G002	GLENRIDGE YARD & SHOP FACILITY GENERAL NOTES AND ABBREVIATION 2 OF 2	357	PL-G112	GLENRIDGE YARD & SHOP FACILITY SECOND FLOOR PLUMBING PLAN - SEGMENT B
214	AR-G004	GLENRIDGE YARD & SHOP FACILITY EQUIPMENT LIST - SHEET 1 OF 2	286	ST-G100	GLENRIDGE YARD & SHOP FACILITY OVERALL FIRST FLOOR PLAN	358	PL-G113	GLENRIDGE YARD & SHOP FACILITY SECOND FLOOR PLUMBING PLAN - SEGMENT C
215	AR-G005	GLENRIDGE YARD & SHOP FACILITY EQUIPMENT LIST - SHEET 2 OF 2	287	ST-G101	GLENRIDGE YARD & SHOP FACILITY FIRST FLOOR FOUNDATION PLAN - SEGMENT A	359	PL-G114	GLENRIDGE YARD & SHOP FACILITY SECOND FLOOR PLUMBING PLAN - SEGMENT D
216	AR-G101	GLENRIDGE YARD & SHOP FACILITY FIRST FLOOR PLAN	288	ST-G102	GLENRIDGE YARD & SHOP FACILITY FIRST FLOOR FOUNDATION PLAN - SEGMENT B	360	PL-G115	GLENRIDGE YARD & SHOP FACILITY THIRD FLOOR PLUMBING PLAN - SEGMENT A
217	AR-G102	GLENRIDGE YARD & SHOP FACILITY SECOND FLOOR PLAN	289	ST-G103	GLENRIDGE YARD & SHOP FACILITY FIRST FLOOR FOUNDATION PLAN - SEGMENT C	361	PL-G116	GLENRIDGE YARD & SHOP FACILITY THIRD FLOOR PLUMBING PLAN - SEGMENT B
218	AR-G103	GLENRIDGE YARD & SHOP FACILITY THIRD FLOOR PLAN	290	ST-G104	GLENRIDGE YARD & SHOP FACILITY FIRST FLOOR FOUNDATION PLAN - SEGMENT D	362	PL-G119	GLENRIDGE YARD & SHOP FACILITY THIRD FLOOR PLUMBING PLAN - SEGMENT E
219	AR-G104	GLENRIDGE YARD & SHOP FACILITY ROOF PLAN	291	ST-G105	GLENRIDGE YARD & SHOP FACILITY FIRST FLOOR FOUNDATION PLAN - SEGMENT E	363	PL-G121	GLENRIDGE YARD & SHOP FACILITY ROOF PLAN PLUMBING - SEGMENT A
220	AR-G105	GLENRIDGE YARD & SHOP FACILITY FIRST FLOOR PLAN SEGMENT A	292	ST-G106	GLENRIDGE YARD & SHOP FACILITY FIRST FLOOR FOUNDATION PLAN - SEGMENT F	364	PL-G122	GLENRIDGE YARD & SHOP FACILITY ROOF PLAN PLUMBING - SEGMENT B
221	AR-G106	GLENRIDGE YARD & SHOP FACILITY FIRST FLOOR PLAN SEGMENT B	293	ST-G110	GLENRIDGE YARD & SHOP FACILITY OVERALL FIRST FLOOR SLAB PLAN	365	PL-G123	GLENRIDGE YARD & SHOP FACILITY ROOF PLAN PLUMBING - SEGMENT C
222	AR-G107	GLENRIDGE YARD & SHOP FACILITY FIRST FLOOR PLAN SEGMENT C	294	ST-G111	GLENRIDGE YARD & SHOP FACILITY FIRST FLOOR SLAB PLAN - SEGMENT A	366	PL-G124	GLENRIDGE YARD & SHOP FACILITY ROOF PLAN PLUMBING - SEGMENT D
223	AR-G108	GLENRIDGE YARD & SHOP FACILITY FIRST FLOOR PLAN SEGMENT D	295	ST-G112	GLENRIDGE YARD & SHOP FACILITY FIRST FLOOR SLAB PLAN - SEGMENT B	367	PL-G125	GLENRIDGE YARD & SHOP FACILITY ROOF PLAN PLUMBING - SEGMENT E
224	AR-G109	GLENRIDGE YARD & SHOP FACILITY FIRST FLOOR PLAN SEGMENT E	296	ST-G113	GLENRIDGE YARD & SHOP FACILITY FIRST FLOOR SLAB PLAN - SEGMENT C	368	PL-G126	GLENRIDGE YARD & SHOP FACILITY ROOF PLAN PLUMBING - SEGMENT F
225	AR-G110	GLENRIDGE YARD & SHOP FACILITY FIRST FLOOR PLAN SEGMENT F	297	ST-G114	GLENRIDGE YARD & SHOP FACILITY FIRST FLOOR SLAB PLAN - SEGMENT D	369	PL-G501	GLENRIDGE YARD & SHOP FACILITY ENLARGED TOILET/LOCKER ROOM PLANS
226	AR-G111	GLENRIDGE YARD & SHOP FACILITY SECOND FLOOR PLAN SEGMENT A	298	ST-G115	GLENRIDGE YARD & SHOP FACILITY FIRST FLOOR SLAB PLAN - SEGMENT E	370	PL-G502	GLENRIDGE YARD & SHOP FACILITY ENLARGED TOILET/LOCKER ROOM PLANS
227	AR-G112	GLENRIDGE YARD & SHOP FACILITY SECOND FLOOR PLAN SEGMENT B	299	ST-G116	GLENRIDGE YARD & SHOP FACILITY FIRST FLOOR SLAB PLAN - SEGMENT F	371	PL-G801	GLENRIDGE YARD & SHOP FACILITY PLUMBING SCHEDULE
228	AR-G113	GLENRIDGE YARD & SHOP FACILITY SECOND FLOOR PLAN SEGMENT C	300	ST-G120	GLENRIDGE YARD & SHOP FACILITY OVERALL SECOND FLOOR PLAN	372	EL-G001	GLENRIDGE YARD & SHOP FACILITY GENERAL NOTES AND ABBREVIATIONS
229	AR-G114	GLENRIDGE YARD & SHOP FACILITY SECOND FLOOR PLAN SEGMENT D	301	ST-G121	GLENRIDGE YARD & SHOP FACILITY SECOND FLOOR FRAMING PLAN - SEGMENT A	373	EL-G002	GLENRIDGE YARD & SHOP FACILITY ELECTRICAL SYMBOL LIST
230	AR-G115	GLENRIDGE YARD & SHOP FACILITY THIRD FLOOR PLAN SEGMENT A	302	ST-G122	GLENRIDGE YARD & SHOP FACILITY SECOND FLOOR FRAMING PLAN - SEGMENT B	374	EL-G101	GLENRIDGE YARD & SHOP FACILITY SITE PLAN - LIGHTING AND POWER
231	AR-G116	GLENRIDGE YARD & SHOP FACILITY THIRD FLOOR PLAN SEGMENT B	303	ST-G123	GLENRIDGE YARD & SHOP FACILITY SECOND FLOOR FRAMING PLAN - SEGMENT C	375	EL-G102	GLENRIDGE YARD & SHOP FACILITY FIRST FLOOR PLAN SEGMENT A - LIGHTING
232	AR-G117	GLENRIDGE YARD & SHOP FACILITY THIRD FLOOR PLAN SEGMENT C	304	ST-G124	GLENRIDGE YARD & SHOP FACILITY SECOND FLOOR FRAMING PLAN - SEGMENT D	376	EL-G103	GLENRIDGE YARD & SHOP FACILITY FIRST FLOOR PLAN SEGMENT B - LIGHTING
233	AR-G118	GLENRIDGE YARD & SHOP FACILITY THIRD FLOOR PLAN SEGMENT D	305	ST-G125	GLENRIDGE YARD & SHOP FACILITY SECOND FLOOR FRAMING PLAN - SEGMENT E	377	EL-G104	GLENRIDGE YARD & SHOP FACILITY FIRST FLOOR PLAN SEGMENT C - LIGHTING
234	AR-G119	GLENRIDGE YARD & SHOP FACILITY THIRD FLOOR PLAN SEGMENT E	306	ST-G126	GLENRIDGE YARD & SHOP FACILITY SECOND FLOOR FRAMING PLAN - SEGMENT F	378	EL-G105	GLENRIDGE YARD & SHOP FACILITY FIRST FLOOR PLAN SEGMENT D - LIGHTING
235	AR-G120	GLENRIDGE YARD & SHOP FACILITY THIRD FLOOR PLAN SEGMENT F	307	ST-G130	GLENRIDGE YARD & SHOP FACILITY OVERALL THIRD FLOOR PLAN	379	EL-G106	GLENRIDGE YARD & SHOP FACILITY FIRST FLOOR PLAN SEGMENT E - LIGHTING
236	AR-G121	GLENRIDGE YARD & SHOP FACILITY ROOF PLAN SEGMENT A	308	ST-G131	GLENRIDGE YARD & SHOP FACILITY THIRD FLOOR FRAMING PLAN - SEGMENT A	380	EL-G107	GLENRIDGE YARD & SHOP FACILITY FIRST FLOOR PLAN SEGMENT F - LIGHTING
237	AR-G122	GLENRIDGE YARD & SHOP FACILITY ROOF PLAN SEGMENT B	309	ST-G132	GLENRIDGE YARD & SHOP FACILITY THIRD FLOOR FRAMING PLAN - SEGMENT B	381	EL-G108	GLENRIDGE YARD & SHOP FACILITY SECOND FLOOR PLAN SEGMENT A - LIGHTING
238	AR-G123	GLENRIDGE YARD & SHOP FACILITY ROOF PLAN SEGMENT C	310	ST-G133	GLENRIDGE YARD & SHOP FACILITY THIRD FLOOR FRAMING PLAN - SEGMENT C	382	EL-G109	GLENRIDGE YARD & SHOP FACILITY SECOND FLOOR PLAN SEGMENT B - LIGHTING
239	AR-G124	GLENRIDGE YARD & SHOP FACILITY ROOF PLAN SEGMENT D	311	ST-G134	GLENRIDGE YARD & SHOP FACILITY THIRD FLOOR FRAMING PLAN - SEGMENT D	383	EL-G110	GLENRIDGE YARD & SHOP FACILITY SECOND FLOOR PLAN SEGMENT C - LIGHTING
240	AR-G125	GLENRIDGE YARD & SHOP FACILITY ROOF PLAN SEGMENT E	312	ST-G135	GLENRIDGE YARD & SHOP FACILITY THIRD FLOOR FRAMING PLAN - SEGMENT E	384	EL-G111	GLENRIDGE YARD & SHOP FACILITY SECOND FLOOR PLAN SEGMENT D - LIGHTING
241	AR-G126	GLENRIDGE YARD & SHOP FACILITY ROOF PLAN SEGMENT F	313	ST-G136	GLENRIDGE YARD & SHOP FACILITY THIRD FLOOR FRAMING PLAN - SEGMENT F	385	EL-G112	GLENRIDGE YARD & SHOP FACILITY THIRD FLOOR PLAN SEGMENT A - LIGHTING
242	AR-G140	GLENRIDGE YARD & SHOP FACILITY OVERALL FIRST FLOOR EQUIPMENT PLAN	314	ST-G140	GLENRIDGE YARD & SHOP FACILITY OVERALL ROOF PLAN	386	EL-G113	GLENRIDGE YARD & SHOP FACILITY THIRD FLOOR PLAN SEGMENT B - LIGHTING
243	AR-G141	GLENRIDGE YARD & SHOP FACILITY FIRST FLOOR EQUIPMENT PLAN - SEGMENT A	315	ST-G141	GLENRIDGE YARD & SHOP FACILITY ROOF FRAMING PLAN - SEGMENT A	387	EL-G114	GLENRIDGE YARD & SHOP FACILITY THIRD FLOOR PLAN SEGMENT C - LIGHTING
244	AR-G142	GLENRIDGE YARD & SHOP FACILITY FIRST FLOOR EQUIPMENT PLAN - SEGMENT B	316	ST-G142	GLENRIDGE YARD & SHOP FACILITY ROOF FRAMING PLAN - SEGMENT B	388	EL-G115	GLENRIDGE YARD & SHOP FACILITY THIRD FLOOR PLAN SEGMENT D - LIGHTING
245	AR-G143	GLENRIDGE YARD & SHOP FACILITY FIRST FLOOR EQUIPMENT PLAN - SEGMENT C	317	ST-G143	GLENRIDGE YARD & SHOP FACILITY ROOF FRAMING PLAN - SEGMENT E	389	EL-G116	GLENRIDGE YARD & SHOP FACILITY THIRD FLOOR PLAN SEGMENT E - LIGHTING
246	AR-G144	GLENRIDGE YARD & SHOP FACILITY FIRST FLOOR EQUIPMENT PLAN - SEGMENT D	318	ST-G300	GLENRIDGE YARD & SHOP FACILITY CONCRETE SECTIONS	390	EL-G117	GLENRIDGE YARD & SHOP FACILITY THIRD FLOOR PLAN SEGMENT F - LIGHTING
247	AR-G145	GLENRIDGE YARD & SHOP FACILITY FIRST FLOOR EQUIPMENT PLAN - SEGMENT E	319	ST-G301	GLENRIDGE YARD & SHOP FACILITY CONCRETE INSPECTION PIT SECTIONS	391	EL-G118	GLENRIDGE YARD & SHOP FACILITY FIRST FLOOR PLAN SEGMENT A - POWER
248	AR-G146	GLENRIDGE YARD & SHOP FACILITY FIRST FLOOR EQUIPMENT PLAN - SEGMENT F	320	ST-G302	GLENRIDGE YARD & SHOP FACILITY HOIST PIT SECTIONS	392	EL-G119	GLENRIDGE YARD & SHOP FACILITY FIRST FLOOR PLAN SEGMENT B - POWER
249	AR-G150	GLENRIDGE YARD & SHOP FACILITY OVERALL SECOND FLOOR EQUIPMENT PLAN	321	ST-G3O3	GLENRIDGE YARD & SHOP FACILITY PAINT BOOTH SECTIONS	393	EL-G120	GLENRIDGE YARD & SHOP FACILITY FIRST FLOOR PLAN SEGMENT C - POWER
250	AR-G151	GLENRIDGE YARD & SHOP FACILITY SECOND FLOOR EQUIPMENT PLAN - SEGMENT A	322	ST-G3O4	GLENRIDGE YARD & SHOP FACILITY WHEEL TRUING PIT SECTIONS	394	EL-G121	GLENRIDGE YARD & SHOP FACILITY FIRST FLOOR PLAN SEGMENT D - POWER
251	AR-G152	GLENRIDGE YARD & SHOP FACILITY SECOND FLOOR EQUIPMENT PLAN - SEGMENT B	323	ST-G400	GLENRIDGE YARD & SHOP FACILITY WHEEL TRUING PIT PARTIAL PLAN-SHEET 1 O	F 3 395	EL-G122	GLENRIDGE YARD & SHOP FACILITY FIRST FLOOR PLAN SEGMENT E - POWER
252	AR-G153	GLENRIDGE YARD & SHOP FACILITY SECOND FLOOR EQUIPMENT PLAN - SEGMENT C	324	ST-G401	GLENRIDGE YARD & SHOP FACILITY WHEEL TRUING PIT PARTIAL PLAN-SHEET 2 O	F 3 396	EL-G123	GLENRIDGE YARD & SHOP FACILITY FIRST FLOOR PLAN SEGMENT F - POWER
253	AR-G154	GLENRIDGE YARD & SHOP FACILITY SECOND FLOOR EQUIPMENT PLAN - SEGMENT D	325	ST-G402	GLENRIDGE YARD & SHOP FACILITY WHEEL TRUING PIT PARTIAL PLAN-SHEET 3 O	F 3 397	EL-G124	GLENRIDGE YARD & SHOP FACILITY SECOND FLOOR PLAN SEGMENT A - POWER
254	AR-G160	GLENRIDGE YARD & SHOP FACILITY OVERALL ROOF EQUIPMENT PLAN	326	ST-G410	GLENRIDGE YARD & SHOP FACILITY PLATFORM PLANS AT GRIDS C AND E (NORTH)	398	EL-G125	GLENRIDGE YARD & SHOP FACILITY SECOND FLOOR PLAN SEGMENT B - POWER
255	AR-G161	GLENRIDGE YARD & SHOP FACILITY ROOF EQUIPMENT PLAN - SEGMENT D	327	ST-G411	GLENRIDGE YARD & SHOP FACILITY PLATFORM PLANS AT GRID E (SOUTH)	399	EL-G126	GLENRIDGE YARD & SHOP FACILITY SECOND FLOOR PLAN SEGMENT C - POWER
256	AR-G201	GLENRIDGE YARD & SHOP FACILITY FIRST FLOOR REFLECTED CEILING PLANS	328	ST-G530	GLENRIDGE YARD & SHOP FACILITY STEEL DETAILS	400	EL-G127	GLENRIDGE YARD & SHOP FACILITY SECOND FLOOR PLAN SEGMENT D - POWER
257	AR-G202	GLENRIDGE YARD & SHOP FACILITY SECOND FLOOR REFLECTED CEILING PLAN	329	ME – G001	GLENRIDGE YARD & SHOP FACILITY GENERAL NOTES AND ABBREVIATIONS	401	EL-G128	GLENRIDGE YARD & SHOP FACILITY THIRD FLOOR PLAN SEGMENT A - POWER
258	AR-G203	GLENRIDGE YARD & SHOP FACILITY THIRD FLOOR REFLECTED CEILING PLAN	330	ME – G105	GLENRIDGE YARD & SHOP FACILITY FIRST FLOOR HVAC PLAN SEGMENT A	402	EL-G129	GLENRIDGE YARD & SHOP FACILITY THIRD FLOOR PLAN SEGMENT B - POWER
259	AR-G204	GLENRIDGE YARD & SHOP FACILITY THIRD FLOOR REFLECTED CEILING PLAN B	331	ME – G106	GLENRIDGE YARD & SHOP FACILITY FIRST FLOOR HVAC PLAN SEGMENT B	403	EL-G130	GLENRIDGE YARD & SHOP FACILITY THIRD FLOOR PLAN SEGMENT C - POWER
260	AR-G205	GLENRIDGE YARD & SHOP FACILITY THIRD FLOOR REFLECTED CEILING PLAN E	332	ME – G107	GLENRIDGE YARD & SHOP FACILITY FIRST FLOOR HVAC PLAN SEGMENT C	404	EL-G131	GLENRIDGE YARD & SHOP FACILITY THIRD FLOOR PLAN SEGMENT D - POWER
261	AR-G301	GLENRIDGE YARD & SHOP FACILITY BUILDING NORTH ELEVATION	333	ME – G108	GLENRIDGE YARD & SHOP FACILITY FIRST FLOOR HVAC PLAN SEGMENT D	405	EL-G132	GLENRIDGE YARD & SHOP FACILITY THIRD FLOOR PLAN SEGMENT E - POWER
262	AR-G302	GLENRIDGE YARD & SHOP FACILITY BUILDING SOUTH ELEVATION	334	ME – G109	GLENRIDGE YARD & SHOP FACILITY FIRST FLOOR HVAC PLAN SEGMENT E	406	EL-G133	GLENRIDGE YARD & SHOP FACILITY THIRD FLOOR PLAN SEGMENT F - POWER
263	AR-G303	GLENRIDGE YARD & SHOP FACILITY BUILDING WEST ELEVATION	335	ME – G 1 1 0	GLENRIDGE YARD & SHOP FACILITY FIRST FLOOR HVAC PLAN SEGMENT F	407	EL-G134	GLENRIDGE YARD & SHOP FACILITY FIRST FLOOR PLAN SEGMENT A - FIRE ALARN
264	AR-G304	GLENRIDGE YARD & SHOP FACILITY BUILDING EAST ELEVATION	336	ME – G 1 1 1	GLENRIDGE YARD & SHOP FACILITY SECOND FLOOR HVAC PLAN SEGMENT A	408	EL-G135	GLENRIDGE YARD & SHOP FACILITY FIRST FLOOR PLAN SEGMENT B - FIRE ALARN
265	AR-G401	GLENRIDGE YARD & SHOP FACILITY BUILDING SECTION A	337	ME - G112	GLENRIDGE YARD & SHOP FACILITY SECOND FLOOR HVAC PLAN SEGMENT B	409	EL-G136	GLENRIDGE YARD & SHOP FACILITY FIRST FLOOR PLAN SEGMENT C - FIRE ALARN
266	AR-G402	GLENRIDGE YARD & SHOP FACILITY BUILDING SECTION B	338	ME - G115	GLENRIDGE YARD & SHOP FACILITY THIRD FLOOR HVAC PLAN SEGMENT A	410	EL-G137	GLENRIDGE YARD & SHOP FACILITY FIRST FLOOR PLAN SEGMENT D - FIRE ALARN
267	AR-G403	GLENRIDGE YARD & SHOP FACILITY BUILDING SECTION C	339	ME - G116	GLENRIDGE YARD & SHOP FACILITY THIRD FLOOR HVAC PLAN SEGMENT B	411	EL-G138	GLENRIDGE YARD & SHOP FACILITY FIRST FLOOR PLAN SEGMENT E - FIRE ALARN
268	AR-G404	GLENRIDGE YARD & SHOP FACILITY BUILDING SECTION D	340	ME - G119	GLENRIDGE YARD & SHOP FACILITY THIRD FLOOR HVAC PLAN SEGMENT E	412	EL-G139	GLENRIDGE YARD & SHOP FACILITY FIRST FLOOR PLAN SEGMENT F - FIRE ALARN
269	AR-G405	GLENRIDGE YARD & SHOP FACILITY BUILDING SECTION E	341	ME-G121	GLENRIDGE YARD & SHOP FACILITY ROOF PLAN HVAC SEGMENT A	413	EL-G140	GLENRIDGE YARD & SHOP FACILITY SECOND FLOOR PLAN SEGMENT A-FIRE ALARM
270	AR-G406	GLENRIDGE YARD & SHOP FACILITY WALL SECTIONS	342	ME-G122	GLENRIDGE YARD & SHOP FACILITY ROOF PLAN HVAC SEGMENT B	414	EL-G141	GLENRIDGE YARD & SHOP FACILITY SECOND FLOOR PLAN SEGMENT B-FIRE ALARM
271	AR-G407	GLENRIDGE YARD & SHOP FACILITY WALL SECTIONS	343	ME-G123	GLENRIDGE YARD & SHOP FACILITY ROOF PLAN HVAC SEGMENT C	415	EL-G142	GLENRIDGE YARD & SHOP FACILITY SECOND FLOOR PLAN SEGMENT C-FIRE ALARM
272	AR-G501	GLENRIDGE YARD & SHOP FACILITY ENLARGED TOILET/LOCKER ROOM PLANS	344	ME-G124	GLENRIDGE YARD & SHOP FACILITY ROOF PLAN HVAC SEGMENT D	416	EL-G143	GLENRIDGE YARD & SHOP FACILITY SECOND FLOOR PLAN SEGMENT D-FIRE ALARM
273	AR-G502	GLENRIDGE YARD & SHOP FACILITY ENLARGED TOILET/LOCKER ROOM PLANS	345	ME-G125	GLENRIDGE YARD & SHOP FACILITY ROOF PLAN HVAC SEGMENT E	417	EL-G144	GLENRIDGE YARD & SHOP FACILITY THIRD FLOOR PLAN SEGMENT A - FIRE ALARN
274	AR-G503	GLENRIDGE YARD & SHOP FACILITY ENLARGED CASEWORK PLAN & DETAILS	346	ME-G126	GLENRIDGE YARD & SHOP FACILITY ROOF PLAN HVAC SEGMENT F	418	EL-G145	GLENRIDGE YARD & SHOP FACILITY THIRD FLOOR PLAN SEGMENT B - FIRE ALARN
275	AR-G504	GLENRIDGE YARD & SHOP FACILITY ENLARGED STAIR PLANS	347	ME – G801	GLENRIDGE YARD & SHOP FACILITY MECHANICAL SCHEDULES AND DETAILS	419	EL-G146	GLENRIDGE YARD & SHOP FACILITY THIRD FLOOR PLAN SEGMENT C - FIRE ALARN
276	AR-G505	GLENRIDGE YARD & SHOP FACILITY ENLARGED STAIR PLANS	348	ME – G802	GLENRIDGE YARD & SHOP FACILITY MECHANICAL SCHEDULES AND DETAILS	420	EL-G147	GLENRIDGE YARD & SHOP FACILITY THIRD FLOOR PLAN SEGMENT D - FIRE ALARN
277	AR-G601	GLENRIDGE YARD & SHOP FACILITY WALL TYPES	349	PL-G001	GLENRIDGE YARD & SHOP FACILITY GENERAL NOTES AND ABBREVIATIONS	421	EL-G148	GLENRIDGE YARD & SHOP FACILITY THIRD FLOOR PLAN SEGMENT E - FIRE ALARN
278	AR-G602	GLENRIDGE YARD & SHOP FACILITY ADA NOTES AND DETAILS	350	PL-G105	GLENRIDGE YARD & SHOP FACILITY FIRST FLOOR PLUMBING PLAN - SEGMENT A	422	EL-G149	GLENRIDGE YARD & SHOP FACILITY THIRD FLOOR PLAN SEGMENT F - FIRE ALARN
279	AR-G801	GLENRIDGE YARD & SHOP FACILITY DOOR SCHEDULE	351	PL-G106	GLENRIDGE YARD & SHOP FACILITY FIRST FLOOR PLUMBING PLAN - SEGMENT B	423	EL-G401	GLENRIDGE YARD & SHOP FACILITY ELECTRICAL AND EMERGENCY PLANS - POWER
280	AR-G802	GLENRIDGE YARD & SHOP FACILITY DOOR SCHEDULE & DETAILS	352	PL-G107	GLENRIDGE YARD & SHOP FACILITY FIRST FLOOR PLUMBING PLAN - SEGMENT C	424	EL-G501	GLENRIDGE YARD & SHOP FACILITY ELECTRICAL DETAILS - 1
281	AR-G803	GLENRIDGE YARD & SHOP FACILITY WINDOW SCHEDULE	353	PL-G108	GLENRIDGE YARD & SHOP FACILITY FIRST FLOOR PLUMBING PLAN - SEGMENT D	425	EL-G502	GLENRIDGE YARD & SHOP FACILITY ELECTRICAL DETAILS - 2



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PROFESSIONAL CERTIFICATION I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland	DRAFT: Information shown is based on 30 percent preliminary engineering plans and may be subject to further revision pending refinements to the plans during the completion of the design phase. Any reliance upon any of these plans is made with full understanding	CHECK DRAWN DESGN
the State of Maryland	any of these plans is made with full understanding	СНЕС
License No. Expiration Date	of its draft status.	АРРК

	CONTRACT NO.
FRELIVIINANT ENGINEERING	T–1042–0220
PURPLE LINE LIGHT RAIL	DRAWING NO.
INDEX OF SHEETS - VOLUME 8	GI-8102
SHEET 2	SHEET NO.
DATE: DECEMBER 2013 SCALE: NONE	OF

				INDE	EX OF	DRAWINGS	- VOLUME	8	
SHEET NO.	DWG. NO.	DE	ESCRIPTION	SHEET NO.	DWG. NO.	DESCF	<b>IPTION</b>	SHEET NO.	
GLENRID	GE YARD	& SHOP FACILITY							
427 428 429 430 431 432 433 434 435 436 437 438 439 440 441 442 443	EL -G602 FP-G001 FP-G101 FP-G102 FP-G103 FP-G104 FP-G105 FP-G106 FP-G107 FP-G108 FP-G109 FP-G109 FP-G110 FP-G111 FP-G112 FP-G113 FP-G114 FP-G115	GLENRIDGE YARD & SHOP FAC GLENRIDGE YARD & SHOP FAC	ILITY POWER SINGLE LINE DIAGRAM ILITY GENERAL NOTES, SYMBOLS AND ABBRI ILITY - FIRST FLOOR PLAN SEGMENT A - F ILITY - FIRST FLOOR PLAN SEGMENT B - F ILITY - FIRST FLOOR PLAN SEGMENT C - F ILITY - FIRST FLOOR PLAN SEGMENT E - F ILITY - FIRST FLOOR PLAN SEGMENT F - F ILITY - SECOND FLOOR PLAN SEGMENT A - ILITY - SECOND FLOOR PLAN SEGMENT B - ILITY - SECOND FLOOR PLAN SEGMENT B - ILITY - SECOND FLOOR PLAN SEGMENT D - ILITY - SECOND FLOOR PLAN SEGMENT A - F ILITY - THIRD FLOOR PLAN SEGMENT A - F ILITY - THIRD FLOOR PLAN SEGMENT A - F	EVIATIONS IRE PROTECTION IRE PROTECTION IRE PROTECTION IRE PROTECTION FIRE PROTECTION FIRE PROTECTION FIRE PROTECTION FIRE PROTECTION IRE PROTECTION IRE PROTECTION IRE PROTECTION IRE PROTECTION IRE PROTECTION IRE PROTECTION IRE PROTECTION					
	DEPARTMEN	IT OF TRANSPORTATION ansit MTA	<b>Gannett</b> Fleming	PROFESS I hereby documen approved am a du engineer	SIONAL CERTIFICATION certify that these ts were prepared or by me, and that I ly licensed professional under the laws of	DRAFT: prelimine further rev the comple	Information shown is based ary engineering plans and mc ision pending refinements to etion of the design phase. Ary base plans is made with full of	on 30 percent by be subject to the plans during by reliance upon understanding	
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# DESCRIPTION

	CONT	RACT NO.
PRELIMINARY ENGINEERING	T–10	42–0220
PURPLE LINE LIGHT RAIL		WING NO
INDEX OF SHEETS – VOLUME	<sub>3</sub>   GI	-8103
SHEET 3	SHE	EET NO.
DATE: DECEMBER 2013 SCALE:	NONE 7	of <b>443</b>



PROFESSIONAL CERTIFICATION	DRAFT: Information shown is based on 30 percent	DESGN	BWJ
documents were prepared or approved by me, and that I	preliminary engineering plans and may be subject to further revision pending refinements to the plans during	DRAWN	AKC
engineer under the laws of the State of Maryland	the completion of the design phase. Any reliance upon any of these plans is made with full understanding	CHECK	AUO
License No. Expiration Date	of its draft status.	APPR	

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PROFESSIONAL CERTIFICATION	DRAFT: Information shown is based on 30 percent	DESGN	BWJ
documents were prepared or approved by me, and that I	<i>preliminary engineering plans and may be subject to</i> <i>further revision pending refinements to the plans during</i>	DRAWN	AKC
engineer under the laws of the State of Maryland	the completion of the design phase. Any reliance upon any of these plans is made with full understanding	CHECK	AUO
License No. Expiration Date	of its draft status.	APPR	



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documents were prepared or approved by me, and that I	preliminary engineering plans and may be subject to further revision pending refinements to the plans during	DRAWN	AKC	
engineer under the laws of the State of Maryland	the completion of the design phase. Any reliance upon any of these plans is made with full understanding	CHECK	AUO	
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DESGN	BWJ	
DRAWN	AKC	
CHECK	AUO	
APPR		

License No. Expiration Date

DEMOLITION GENERAL NOTES:

- 1. SEE UTILITY PLANS FOR UTILITY DEMOLITION.
- 2. EXISTING FEATURES DESIGNATED AS "TO REMAIN" SHALL BE PRESERVED THROUGH CONSTRUCTION AND REPLACED BY CONTRACTOR IF DAMAGED.

#### KEYED NOTES

- 1 REMOVE EXISTING PAVEMENT
- $\langle 2 \rangle$  REMOVE EXISTING TREES

#### LEGEND

	REMOVE EXISTING	PAVEMENT
R	REMOVE EXISTING	FEATURE
— — —	EX. U/G UTILITY	TO BE REMOVED

0	40'	80′
SCALE:	1 "=40 '	

	CONTRACT NO.
PRELIMINARY ENGINEERING	T–1042–0220
PURPLE LINE LIGHT RAIL	DRAWING NO.
LYTTONSVILLE YARD FACILITY	CV–L04
DEMOLITION PLAN – SHEET 1 OF 3	SHEET NO.
DATE: DECEMBER 2013 SCALE: AS SHOWN	<u>11</u> OF <u>443</u>











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		4	0' 	0 2 SCALE: 1"=4	10' 80' 	
PROFESSIONAL CERTIFICATION I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional	DRAFT: Information shown is based on 30 percent preliminary engineering plans and may be subject to further revision pending refinements to the plans during	DRAWN DESGN	BWJ AKC	PRELIMINA PURPLE	ARY E LINE	
engineer under the laws of the State of Maryland License No. Expiration Date	the completion of the design phase. Any reliance upon any of these plans is made with full understanding of its draft status.	APPR CHECK	AUO	DATE: DEC	LYTTONSVI CIVIL SITE F CEMBER 2013	LLE Y 'LAN

PL	AN	NOTE	S

- 1. ALL RADII ARE SHOWN 5' UNLESS OTHERWISE SHOWN
- 2. ALL DIMENSIONS SHOWN ARE TO EDGE OF PAVEMENT
- 3. REFER TO TRACK PLANS FOR BALLAST AND TRACK DETAILS
- 4. ALL DIMENSIONS SHOWN ARE IN FEET

#### KEYED NOTES

$\langle$	1	INSTALL	6′	CHAIN LINK	FENCE.	SEE DETAILS	
	_						

- $\langle 2 \rangle$  INSTALL RETAINING WALL. SEE STRUCTURAL PLANS.
- SEE ALIGNMENT PLANS AND INTERSECTION DETAILS FOR WORK OUTSIDE YARD LIMITS.
- SEE LYTTONSVILLE YARD FACILITY ALIGNMENT PLANS AND TYPICAL SECTIONS FOR MAINTENANCE ROAD AND BALLAST LIMITS
- 5 SEE LYTTONSVILLE STATION PLANS FOR WORK ASSOCIATED WITH LYTTONSVILLE STATION
- 6 INSTALL KEY PASS OPERATED SWING GATE ASSEMBLY. SEE ARCHITECTURAL PLANS FOR DETAILS.
- (7) INSTALL KEY PASS OPERATED MOTORIZED SLIDE GATE ASSEMBLY

### LEGEND

PROPOSED	ASPHALT	PAVEMENT
PROPOSED	CONCRETE	Ξ

PRELIMINARY ENGINEERING	contract no. <b>T–1042–0220</b>
PURPLE LINE LIGHT RAIL	DRAWING NO.
LYTTONSVILLE YARD FACILITY	CV–L07
CIVIL SITE PLAN – SHEET 1 OF 3	SHEET NO.
DATE: DECEMBER 2013 SCALE: AS SHOWN	14 OF443





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of its	draft	status.

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## KEYED NOTES

- $\langle 1 \rangle$  see utility relocation plans for utility relocation.
- $\langle 2 \rangle$  see architectural plans for emergency repair pit.
- (3) INSTALL FIRE HYDRANT PER WSSC AND MONTGOMERY COUNTY REQUIREMENTS. REPLACE DISTURBED AREA IN KIND OR AS REQUIRED BY WSSC AND MONTGOMERY COUNTY. SEE DETAIL.
- CONNECT TO EXISTING WATER MAIN AS REQUIRED BY WSSC. REPLACE DISTURBED AREA IN KIND OR AS REQUIRED BY WSSC AND MONTGOMERY COUNTY.





		40′
PROFESSIONAL CERTIFICATION I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland License No. Expiration Date	DRAFT: Information shown is based on 30 percent preliminary engineering plans and may be subject to further revision pending refinements to the plans during the completion of the design phase. Any reliance upon any of these plans is made with full understanding of its draft status.	APPR CHECK DRAWN DESGN APPR OCHECK

MATCH LINE TRK 9 STA 13+00 - SEE DWG CV-L11	
0 40' 80' SCALE: 1"=40'	( ( ; ; ; ;
PRELIMINARY ENGINEERING	CONTRACT NO. T-1042-0220
PURPLE LINE LIGHT RAIL	DRAWING NO.
LYTTONSVILLE YARD FACILITY SITE / UTILITY PLAN – SHEET 1 of 3	SHEET NO.
DATE: DECEMBER 2013 SCALE: AS SHOWN	





PROFESSIONAL CERTIFICATION	DRAFT: Information shown is based on 30 percent	DESGN	BWJ
documents were prepared or approved by me, and that I	preliminary engineering plans and may be subject to further revision pending refinements to the plans during	DRAWN	AKC
engineer under the laws of the State of Maryland	the completion of the design phase. Any reliance upon any of these plans is made with full understanding	CHECK	AUO
License No. Expiration Date	of its draft status.	APPR	

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5'-0"	I
CHECK VALVE	
2'-7" (MIN )	т
12" 10" PVC SCH. 80 H	ATCH DRAIN
	RAVEL PIT
M.J.SOLID S	LEEVE,
1-3" SEE NOTE 2 DETAIL W/5	2 ON
	1P
	XTENSION
SEE DETAIL M/16.0	1. A. S. S. S.
☐ 30"x30" SQ. OPENING IN TOP SLAB	
REMOTE READING CABLE	
(H-20 LOADING, SEE SPECIFICATIONS)	AND
SEE NOTE 5.	
	DRAIN
TO DRAIN TO GRAVE	LPIT 6
	2'-
W/5 0d	
$\tau$	
	(1-CY
OF #57 ST	ONE) WRAP
	EXTENSION
SEE DE TAIL M/16.0	.
DEVICES (TYPICA	L AT EACH
PIPE OPENING), SPECIFICATIONS	SEE
12" DIP AND	
12" MJ CAP.	
ELEVATION	
STANDARD DETAIL	
WITH CHECK VALVE VAULT	5.0c
	W50c





PROFESSIONAL CERTIFICATION I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional enginiteeert under the laws off the State of Maryland License No. Expiration Date		DRAFT: Information shown is based on 30 percent preliminary engineering plans and may be subject to further revision pending refinements to the plans during the completion of the design phase. Any reliance upon any of these plans is made with full understanding of its draft status.	APPR CHECK DRAWN DESGN	BW. AKC AUC
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		CONTRACT NO.
PRELIMINART ENGINEER	AIING	T–1042–0220
PURPLE LINE LIGHT RAIL		DRAWING NO.
LYTTONSVILLE YARD FACILITY		CV–L13
UTILITY DETAILS		SHEET NO.
DATE: DECEMBER 2013	SCALE: AS SHOWN	20 OF 443



PARKING TABUI	
SPACES REQUIRED FOR MTA	90
SPACES REQUIRED FOR M.C.	200
TOTAL SPACES NEEDED	290
TOTAL SPACES PROVIDED	298
TOTAL ADA SPACES NEEEDED	7
VAN SPACES 2	
STANDARD ADA	5

### NOTES

**E Gannett** Fleming

VR84

1. SEE PARKING DECK DECK LIGHTING 2. PARKING SPACES 9 WILL MEET ADA REQUIF

# MARYLAND DEPARTMENT OF TRANSPORTATION



	CARAGE ENTRANCE			
Image: Second state         Image: Second sta		OFFICE BUILDING	In the second se	
PROFESSIONAL CERTIFICATION         I hereby certify that these         documents were prepared or         approved by me, and that I         am a duly licensed professional         engineer under the laws of         the State of Maryland         License No.       Expiration Date	DRAFT: Information shown is based on 30 percen preliminary engineering plans and may be subject further revision pending refinements to the plans du the completion of the design phase. Any reliance up any of these plans is made with full understanding of its draft status.	40' 40' BWJ to to ring on S HbBr AKC AKC AUO S HbBr AUO	0 40' 80' SCALE: 1"=40' PRELIMINARY ENGINEERING PURPLE LINE LIGHT RAIL LYTTONSVILLE YARD FACILITY PARKING LAYOUT DATE: DECEMBER 2013 SCALE: AS SHOWN	CONTRACT NO. <b>T-1042-0220</b> DRAWING NO. <b>CV-L14</b> SHEET NO. <u>21</u> OF <u>443</u>





PROFESSIONAL CERTIFICATION	DRAFT: Information shown is based on 30 percent	DESGN	BWJ
documents were prepared or approved by me, and that I	preliminary engineering plans and may be subject to further revision pending refinements to the plans during	DRAWN	AKC
engineer under the laws of the State of Maryland	the completion of the design phase. Any reliance upon any of these plans is made with full understanding	CHECK	AUO
License No. Expiration Date	of its draft status.	APPR	

MATCH LINE TAK 9 STA 13+00 - SEE DWG DR-LO2	Buolo Liot Boil 130 CEC CAD Flood 7000 100 Decod Shot Filod 1003 400
0 40' 80' SCALE: 1"=40'	
PRELIMINARY ENGINEERING PURPLE LINE LIGHT RAIL LYTTONSVILLE YARD FACILITY	CONTRACT NO. T-1042-0220 DRAWING NO. DR-L01
SVVIVI & DRAINAGE PLAN – SHEET 1 OF 3 DATE: DECEMBER 2013 SCALE: AS SHOWN	OF443

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PROFESSIONAL CERTIFICATION	DRAFT: Information shown is based on 30 percent	DESGN	BWJ	
documents were prepared or approved by me, and that I	preliminary engineering plans and may be subject to further revision pending refinements to the plans during	DRAWN	AKC	
engineer under the laws of the State of Maryland	<i>the completion of the design phase. Any reliance upon any of these plans is made with full understanding</i>	CHECK	AUO	
License No. Expiration Date	of its draft status.	APPR		



		40′
PROFESSIONAL CERTIFICATION	DRAFT: Information shown is based on 30 percent	NDS BWJ
documents were prepared or approved by me, and that I	preliminary engineering plans and may be subject to further revision pending refinements to the plans during	NMAN AKC
engineer under the laws of the State of Maryland	the completion of the design phase. Any reliance upon any of these plans is made with full understanding	OUA CHECK
License No. Expiration Date	of its draft status.	APPR

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↓ UU
↓ (T¥P.)

10.00′

-80

12.00′

310

300

290

280

270

260

250L

-100

SUBBALLAST

MIN. 2% SLOPE

12"

(MIN.)

# MARYLAND DEPARTMENT OF TRANSPORTATION













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DESGN	BWJ	
DRAWN	AKC	
CHECK	AUO	
РРК		

		CONTRACT NO.
PRELIMINARY ENGI	NEERING	T–1042–0220
PURPLE LINE LIGI	HT RAIL	DRAWING NO.
LYTTONSVILLE YARD	FACILITY	DR-L04
DRAINAGE DET	TAILS	SHEET NO.
DATE: DECEMBER 2013	SCALE: AS SHOWN	_25_ OF _443_









SCALE:3/4"=1'-0"

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#### BALLAST SCREEN NOTES:

I. FRAME, BALLAST SCREEN AND GRATE SHALL BE CONSTRUCTED OF STEEL ASTM DESIGNATION A-36. SCREEN SHALL BE GALVANIZED AFTER FABRICATION IN ACCORDANCE WITH ASTM DESIGNATION A123.

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	) Files\Zone 10
	) GEC CADI
	ght Rail\130
	rple Line Lig
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443_	pw:// 11/1
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PRELIMINARY ENGINE	ERING	contract no. <b>T–1042–0220</b>
PURPLE LINE LIGHT RAIL		DRAWING NO.
LYTTONSVILLE YARD FACILITY DRAINAGE DETAILS		DR-L05
		SHEET NO.
DATE: DECEMBER 2013	SCALE: <b>AS SHOWN</b>	_26_ OF _443_



**MARYLAND TRANSIT ADMINISTRATION** Maryland



MAHAN RYKIEL

PROFESSIONAL CERTIFICATION I hereby certify that these documents were prepared or approved by me, and that I	DRAFT: Information shown is based on 30 percent preliminary engineering plans and may be subject to further revision pending refinements to the plans during	CB/JTT CO/JM	_
am a duly licensed professional architect under the laws of the State of Maryland	<i>the completion of the design phase. Any reliance upon any of these plans is made with full understanding of its draft status.</i>	TLK CHECK	
License No. Expiration Date		Af	

## LEGEND

1			
		EXISTING TREE TO BE PR WHERE POSSIBLE	ESERVED
- ^ L	(+)	PROPOSED SHADE TREE	
0 2	()	PROPOSED UPRIGHT SHAD	E TREE
	ŏ	PROPOSED EVERGREEN TR	REE
	E.3	PROPOSED FLOWERING TR	EE
	$\odot \odot \odot$	PROPOSED SHRUBS	
		PROPOSED PLANTER WITH MIXED PLANTINGS	
		PROPOSED GROUNDCOVER. ORNAMENTAL GRASSES	PERENNIALS/
		PROPOSED GREEN ROOF F	PLANTINGS
		PROPOSED SPECIAL PAVIN	IG
	<sup>N</sup>	PROPOSED FENCE/GATE	
	****	PROPOSED BIKE RACK	
	q	PROPOSED TABLE & CHA	IRS
	NOTES: I. RESEEI SEED UNI	D ALL DISTURBED AREAS N LESS OTHERWISE NOTED.	NITH TURF
	2. SEE C Planting	CORRIDOR LANDSCAPE PLAN SS BEYOND THE YARD FACI	SET FOR LITY.
	3.COORD DRAINAGE POLES AI DRAINAGE	INATE PLANTINGS WITH ALL FEATURES AND UTILITY/S ND BOXES REFERENCED ON S/SYSTEMS/CIVIL DRAWINGS	_ SWM/ System
0' 80' 0'			
			CONTRACT NO.
FNELIIVIIINA DI IDDI E	T-1042-0220		
FURFLE	DRAWING NO.		
LYTTONSVIL	LE YARD	FACILITY	LO-LUI

LANDSCAPE PLAN – SHEET 1 OF 3 DATE: DECEMBER 2013

SCALE: 1

SCALE: AS SHOWN

SHEET NO. <u>27</u> OF <u>443</u>



		40′	0 40' 80' SCALE: 1"=40'		
PROFESSIONAL CERTIFICATION I hereby certify that these documents were prepared or approved by me, and that I	DRAFT: Information shown is based on 30 percent preliminary engineering plans and may be subject to further revision pending refinements to the plans during	CB/JTT CD/JM	PRELIMINA PURPLE	ARY ENGINEERING LINE LIGHT RAIL	contract no. <b>T–1042–0220</b> drawing no.
am a duly licensed professional architect under the laws of the State of Maryland License No. Expiration Date	<i>the completion of the design phase. Any reliance upon</i> <i>any of these plans is made with full understanding</i> <i>of its draft status.</i>	APPR CHECK	LYTTONSVIL LANDSCAPE P DATE: DECEMBER 2013	LE YARD FACILITY LAN – SHEET 2 OF 3 scale: As shown	LS-L02 SHEET NO. _28_ OF _443_

I. RESEED ALL DISTURBED AREAS WITH TURF SEED UNLESS OTHERWISE NOTED. 2. SEE CORRIDOR LANDSCAPE PLAN SET FOR PLANTINGS BEYOND THE YARD FACILITY. 3. COORDINATE PLANTINGS WITH ALL SWM/ DRAINAGE FEATURES AND UTILITY/SYSTEM

POLES AND BOXES REFERENCED ON DRAINAGE/SYSTEMS/CIVIL DRAWINGS.

NOTES:



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K.J

C

PROPOSED TABLE & CHAIRS

PROPOSED TRASH/RECYCLING RECEPTACLE

PROPOSED BIKE RACK

Ø PROPOSED SPECIALTY PAVING 

PROPOSED EVERGREEN TREE PROPOSED FLOWERING TREE PROPOSED SHRUBS  $\odot \odot \odot$ PROPOSED GROUNDCOVER/PERENNIALS/ ORNAMENTAL GRASSES PROPOSED GREEN ROOF PLANTINGS

LEGEND EXISTING TREE TO BE PRESERVED WHERE POSSIBLE PROPOSED SHADE TREE PROPOSED UPRIGHT SHADE TREE

STATION ARCHITECTURE PACKAGE, DRAWING LS1Y01, FOR DETAILED



-PROPOSED DESIGNATED SMOKING ARE

DECORATIVE 6' HT. FENCE, ON WALL ADJACENT TO BRIDGE

CONCRETE WALL, FINISH TO MATCH YARD OFFICE BUIDLING

PLANTING VARIES

LIGHT WEIGHT SOILS

WATERPROOFING



PARKING DECK

NOTE: COORDINATE WALL CONNECTION PARKING DECK STRUCTURE







STACKABLE POWDROOMS MUKER HINST       EVENTION TO BACK OWNER WITH AND MERTS BLOD, OWNER HINST BELOD, OWNER	EA							LEGEND	
SUMPACE, SOURCE SUBJECT, UNIT ALL DARY BY FORMS + BURNACE, SOURCE SUBJECT, UNIT ALL DARY BY FORMS + BURNACE, SOURCE SHALL SUBJECT THE RECOMMENDATIONS       PROPORT SLIGHT THE PROPORT SLIGHT THE PROPORT GROWNOUTHANT FOR REFS. SUIT ART         Image: State in the property of the Manufacture finite personates to PROPORT SLIGHT ART STATES REFS. SUIT ART       PROPORT SLIGHT ARE PROPORT GROWNOUTHANT FOR THE PROPORT CONTACT FOR THE CONTRACT PROPORT FOR THE PROPORT GROWNOUTHANT FOR THE PROPORT FOR THE PROPORT FOR THE PROPORT PROPORT FOR THE PROPORT FOR THE PROPORT FOR THE PROPORT PROPORT FOR THE PROPORT FOR THE PROPORT PROPORT FOR THE PROPORT FOR THE PROPORT FOR THE PROPORT PROPORT FOR THE PROPORT FOR THE PROPORT PROPORT FOR THE PROPORT FOR THE PROPORT FOR THE PROPORT PROPORT FOR THE PROPORT FOR THE PROPORT FOR THE PROPORT PROPORT FOR THE PROPORT FOR THE PROPORT FOR THE PROPORT PROPORT FOR THE PROPORT FOR THE PROPORT PROPORT FOR THE PROPORT FOR THE PROPORT FOR THE PROPORT PROPORT FOR THE PROPORT FOR THE PROPORT FOR THE PROPORT PROPORT FOR THE PROPORT FOR THE PROPORT FOR THE PROPORT PROPORT FOR THE PROPORT FOR THE PROPORT FOR THE PROPORT PROPORT FOR THE PROP			STACKABLE POWDERC PERFORATED BACK CH	COAT SILVER F HAIR WITH ARI	FINISH M RESTS B.O.D.			EXISTING TREE TO BE PI WHERE POSSIBLE	RESERVED
INTELL PER MANUFACTURER RECOMMENDATIONS       PROVISED UPDG/T SHADC TREE         Image: Status of the s			SURFACES, (OR EQUA	AP (VISTA CHA L)	NR) BY FORMS +		(+)	PROPOSED SHADE TREE	
PROPOSED FUNCTIONER THEFT PROPOSED FUNCTIONER THEFT PROPOSED FUNCTIONER THEFT PROPOSED FUNCTIONER THEFT PROPOSED FUNCTIONER PROPOSED FUNCTIONER      SCALES 1"11-0"     REFS SHT-REF      PROPOSED FUNCTIONER      PROPO			INSTALL PER MANUFA	CTURER RECO	OMMENDATIONS		Ã	PROPOSED UPRIGHT SHAL	DE TREE
STACKABLE CHAIR DETAIL     Server States of the construction of the device phase of the phase of the subject of the device phase of the subject of the							Ŏ	PROPOSED EVERGREEN T	REE
Image: Stackable chair detail       Scale: 1"=1"-0"         Scale: 1"=1"-0"       Scale: 1"=1"-0"         Image: Stackable chair detail       Scale: 1"=1"-0"         Image: Scale: 1"=10"       Scale: 1"=10"         Image: Scale: 1"=10"       Scale: 1"=20"         Image: Scale: 1"=20"       Scale: 1"=20" <t< th=""><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th>PROPOSED FLOWERING TR</th><th>REE</th></t<>								PROPOSED FLOWERING TR	REE
STACKABLE CHAIR DETAIL     STACKABLE     STACKABLE CHAIR DETAIL     ST							000	PROPOSED SHRUBS	
Image: Stackable chair detail       Scale: 1'=1'=0"         Scale: 1'=1'=0"       Scale: 1'=1'=0"         REF: SHT-REF       Powdercoat SLVER FINISH PERFORATED TOP ROUND TOP TABLE (3'TOP, 3'MASE) BO.D.         Proposed Finish Performated to the pars during recommendations       Proposed Finish Performated to the proposed Finish Performated to the plans during the design plans and may be subject to profiling of its dright status.       Image: Court of proposed Finish Performation Proposed Finish Performance Proposed Finish Peri		U						PROPOSED GROUNDCOVER ORNAMENTAL GRASSES	PERENNIALS/
Image: Scale : 1"=1'=0" REF: sht=REF         PROPOSED SPECIAL TY PAVING REF: sht=REF         PROPOSED TABLE SCALE : 1"=1'=0" REF: sht=REF         PROPOSED TABLE SCALE : 1"=20'		2 STACKABLE	CHAIR DETAI	L				GREEN ROOF PLANTINGS	
NET: SHTREF       PROPOSED FENCE/GATE         POWDERCOAT SLIVER FINISH PERFORATED TOP ROUND TOP TABLE (38T TOP, 30° BASE) B.O.D. TOP TABLE ODEL TOPS (14 BASE) B.O.D. TOP TABLE ODEL TOPS (14 BASE) B.O.D. TOP TABLE ODEL TOPS (14 BASE) B.O.D. TOP TABLE DETAIL         PERFORATED TOP TABLE DETAIL       PERFORATED TOP TABLE DETAIL         SCALE: 1°=1′-0° REF: SHT-REF       20′		LS-L03 SCALE: 1"=1'-0"	,			-	P	PROPOSED SPECIALTY PA	AVING
POWDERCOAT SILVER FINISH PERFORATED TOP ROUND TOP TABLE (30° TOP, 30° BASE) B.O.D. TABLE MODEL: SPOOL TABLE; POWDERCOARS (COLUMN TABLE) BY FORMS SUBFACES, (OR EQUAL): INSTALL PER MANUFACTURER RECOMMENDATIONS       PROPOSED TABLE & CHARS         PROPOSED TRASH & RECYCLING       PROPOSED TRASH & RECYCLING         PERFORATED TOP TABLE DETAIL       SCALE: 1 "=1"-0" REF: SHT-REF         PERFORATED TOP TABLE DETAIL       3. COORDINATE PLANTINGS WITH ALL SWU/DRANAGE FEATURES AND UTLITY/SYSTEM POLES AND BOXES METERNOED ON ORIMADE/SYSTEMS/CVIL PRAVINGS         DRAFFI: Information shown is based on 30 percent preliminary engineering plans and may be subject to further revision pending refinements to the plans during of its draft status. <ul> <li>GBUT</li> <li>TIK</li> <li>LYTTONSVILE YARD FACILITY LANDSCAPE PLAN - SHEET 3 OF 3 DATE: DECEMBER 2013</li> <li>SCALE: AS SHOWN</li> <li>SCALE: AS SHOWN</li></ul>		KEF: SHI-KEF					—x	PROPOSED FENCE/GATE	
OWNER OF TABLE GY TOR, SIGNAL       PROPOSED TABLE & CHAIRS         OWNER OF TABLE GY TOR, SIGNAL       PROPOSED TABLE & CHAIRS         DEVELOPMENT TABLE GY TOR, SIGNAL       PROPOSED TABLE & CHAIRS         DEVELOPMENT TABLE GY TOR, SIGNAL       PROPOSED TABLE & CHAIRS         DEVELOPMENT TABLE GY TOR, SIGNAL       PROPOSED TABLE & CHAIRS         DEVELOPMENT TABLE GY TOR, SIGNAL       PROPOSED TABLE & CHAIRS         DEVELOPMENT TABLE GY TOR, SIGNAL       PROPOSED TABLE & CHAIRS         DEVELOPMENT TABLE GY TOR, SIGNAL       PROPOSED TABLE & CHAIRS         DEVELOPMENT TABLE GY TOR, SIGNAL       PROPOSED TABLE & CHAIRS         DEVELOPMENT TABLE GY TOR, SIGNAL       PROPOSED TABLE & CHAIRS         DEVELOPMENT TABLE GY TOR, SIGNAL       PROPOSED TABLE A CHAIRS         DEVELOPMENT TABLE GY TOR, SIGNAL       PROPOSED TABLE A CHAIRS         DEVELOPMENT TABLE GY TOR, SIGNAL       PROPOSED TABLE A CHAIRS         DEVELOPMENT TABLE GY TOR, SIGNAL       PROPOSED TABLE A CHAIRS         DEVELOPMENT TABLE GY TOR, SIGNAL       PROPOSED TABLE A CHAIRS         DEVELOPMENT TO TABLE DETAIL       SCORE TABLE, SAND UTLITY SYSTEM POLES AND BARE RACKOR         SCALE: 1"=1"       PRELIMINARY ENGINEERING       CONTRACT NO.         THEORY TO THE REVEALING BY THALL SYMUNC AND TABLE TO THE REVOLUCE TABLE, AND BRE RACK DETAILS.       DATE: DECOMBER 2013       DATE: DECOMBER 2013 <t< th=""><th></th><th></th><th></th><th></th><th></th><th></th><th><b>₩₩₩₩</b>₩</th><th>PROPOSED BIKE RACK</th><th></th></t<>							<b>₩₩₩₩</b> ₩	PROPOSED BIKE RACK	
PROPOSED TRASH & RECYCLING     BY FORMS + SURFACES, (OR EQUAL)     INSTALL PER MANUFACTURER     IN			ROUND TOP TABLE (36	5" TOP, 30" BAS	SE) B.O.D.		q	PROPOSED TABLE & CHA	AIRS
Image: Stall per manufacturer Recommendations       Notes: 1. Research and a with turp seed Unless otherwise noted.         PERFORATED TOP TABLE DETAIL Scale: 1 "=1'-0" REF: SHT-REF       Scale: 1 "=1'-0" REF: SHT-REF         Image: DRAFT: Information shown is based on 30 percent preliminary engineering plans and may be subject to further revision pending refinements to the plans during the completion of the design phase. Any reliance upon any of these plans is made with full understanding of its draft status.       Image: Completion of the design phase. Any reliance upon any of these plans is made with full understanding of its draft status.       Image: Completion of the design phase. Any reliance upon any of these plans is made with full understanding of its draft status.       Image: Completion of the design phase. Any reliance upon any of these plans is made with full understanding of its draft status.       Image: Completion of the design phase. Any reliance upon any of these plans is made with full understanding of its draft status.       Image: Completion of the design phase. Any reliance upon any of these plans is made with full understanding of its draft status.       Image: Completion of the design phase. Any reliance upon any of these plans is made with full understanding of its draft status.       Image: Completion of the design phase. Any reliance upon and back and the design phase. Any reliance upon any of these plans is made with full understanding <th></th> <th></th> <td>BY FORMS + SURFACE</td> <td>S, (OR EQUAL</td> <td>)</td> <td></td> <td>0</td> <td>PROPOSED TRASH &amp; REC RECEPTACLES</td> <td>CYCLING</td>			BY FORMS + SURFACE	S, (OR EQUAL	)		0	PROPOSED TRASH & REC RECEPTACLES	CYCLING
2. SEE CORRIDOR LANDSCAPE PLAN SET FOR PERFORATED TOP TABLE DETAIL SCALE: 1"=1'-0" REF: SHT-REF 20'			INSTALL PER MANUFA	CTURER			NOTES: I. RESEEI UNLESS (	) ALL DISTURBED AREAS DTHERWISE NOTED.	WITH TURF SEED
2       PERFORATED TOP TABLE DETAIL       3. COORDINATE PLANTINGS WITH ALL SWM/DRAINAGE FEATURES AND UTLITY/SYSTEM POLES AND BOXES AND BO							2. SEE C Planting	ORRIDOR LANDSCAPE PLAN S BEYOND THE YARD FAC	N SET FOR ILITY.
20'       0       20'       40'       4. SEE LSOHOI FOR SPECIAL PAVING, TRASH/ RECYCLING RECEPTACLES, AND BIKE RACK DETAILS.         DRAFT: Information shown is based on 30 percent preliminary engineering plans and may be subject to further revision pending refinements to the plans during the completion of the design phase. Any reliance upon any of these plans is made with full understanding of its draft status.       Image: CBJTT of the completion of the design phase. Any reliance upon any of these plans is made with full understanding of its draft status.       Image: CBJTT of the completion of the design phase. Any reliance upon any of these plans is made with full understanding of its draft status.       Image: CBJTT of the completion of the design phase. Any reliance upon any of these plans is made with full understanding of its draft status.       Image: CBJTT of the completion of the design phase. Any reliance upon any of these plans is made with full understanding of its draft status.       Image: CBJTT of the completion of the design phase. Any reliance upon any of these plans is made with full understanding of its draft status.       Image: CBJTT of the completion of the design phase. Any reliance upon any of these plans is made with full understanding of its draft status.       Image: CBJTT of the completion of the completion of the completion of the completion of the design phase. Any reliance upon any of these plans is made with full understanding of its draft status.       Image: CBJTT of the completion of the complet		2 PERFORATED SCALE: 1"=1'-0" REF: SHT-REF	D TOP TABLE	DETAIL			3.COORDI FEATURES REFERENC DRAWINGS	NATE PLANTINGS WITH AL 5 AND UTILITY/SYSTEM P CED ON DRAINAGE/SYSTEM •	L SWM/DRAINAGE OLES AND BOXES IS/CIVIL
DRAFT: Information shown is based on 30 percent preliminary engineering plans and may be subject to further revision pending refinements to the plans during the completion of the design phase. Any reliance upon any of these plans is made with full understanding of its draft status.				20′	0 20' SCALE: 1"=20'	40'	4.SEE LS Recyclin	SOHOI FOR SPECIAL PAVINO G RECEPTACLES, AND BIKE	G, TRASH/ E RACK DETAILS.
Draw 1. Information shown is based on 30 percent preliminary engineering plans and may be subject to further revision pending refinements to the plans during the completion of the design phase. Any reliance upon any of these plans is made with full understanding of its draft status.       PURPLE LINE LIGHT RAIL       I=-1042=-0220         Image: Draw 1. Information shown is based on 30 percent preliminary engineering plans and may be subject to further revision pending refinements to the plans during the completion of the design phase. Any reliance upon any of these plans is made with full understanding of its draft status.       Image: Draw 1. Information shown is based on 30 percent plans and may be subject to plans during the completion of the design phase. Any reliance upon of its draft status.       Image: Draw 1. Information shown is based on 30 percent plans and may be subject to previous during the completion of the design phase. Any reliance upon of its draft status.       Image: Draw 1. Information shown is based on 30 percent plans and may be subject to previous during the completion of the design phase. Any reliance upon of its draft status.       Image: Draw 1. Information shown is based on 30 percent plans and may be subject to previous during the completion of the design phase. Any reliance upon of its draft status.       Image: Draw 1. Information shown is based on 30 percent plans and the plans during the completion of the design phase. Any reliance upon of the design phase.       Image: Draw 1. Information shown is based on 30 percent plans and the plans during the p		DRAFT. Information shown is based	l on 30 percent	CB/JTT	PF	RELIMINAR	y engine	EERING	CONTRACT NO.
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DATE: DECEMBER 2013 SCALE: AS SHOWN 29 OF 443		any of these plans is made with full t of its draft status.	understanding	NT I TK	LANDS	SCAPE PLA	N - SHE	ET 3 OF 3	SHEET NO.
		<i>j</i>		АРР	DATE: DECEMBE	ER 2013		SCALE: <b>AS SHOWN</b>	OF443

PROFESSIONAL CERTIFICATION

am a duly licensed professional architect under the laws of

License No. Expiration Date





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	40' 0 40' 80' HORIZONTAL SCALE: 1"=40'	10'
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am a duly licensed professional engineer under the laws of the State of Maryland License No. Expiration Date	<i>the completion of the design phase.</i> Any reliance upon any of these plans is made with full understanding of its draft status.	APPR KE1

	CONTRACT NO.
PRELIMINARY ENGINEERING	T–1042–0220
PURPLE LINE LIGHT RAIL	DRAWING NO.
LYTTONSVILLE YARD FACILITY	TW–L05
PROFILE STA Y1 10 + 00 TO STA Y1 16 + 91.98	SHEET NO.
DATE: DECEMBER 2013 SCALE: AS SHOWN	<u>34</u> of <u>443</u>





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PROFESSIONAL CERTIFICATION I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland	DRAFT: Information shown is based on 30 percent preliminary engineering plans and may be subject to further revision pending refinements to the plans during the completion of the design phase. Any reliance upon any of these plans is made with full understanding of its draft status.	CHECK DRAWN DESCN DESCN DRAWN DESCN	PRELIMINARY ENGINEERING PURPLE LINE LIGHT RAIL LYTTONSVILLE YARD FACILITY PROFILE STA Y2 0+00 TO STA Y2 7+48.75	CONTRACT NO. T-1042-0220 DRAWING NO. TW-L06 SHEET NO.
License No. Expiration Date		АРР	DATE: DECEMBER 2013 SCALE: AS SHOWN	<u>35</u> OF <u>443</u>









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PROFESSIONAL CERTIFICATION	DRAFT: Information shown is based on 30 percent	N DESGN	IRK	
I hereby certify that these documents were prepared or approved by me, and that I	<i>preliminary engineering plans and may be subject to</i> <i>further revision pending refinements to the plans during</i>	DRAWN N	IRK	
engineer under the laws of the State of Maryland	the completion of the design phase. Any reliance upon any of these plans is made with full understanding	R CHECK	₹EJ	
License No. Expiration Date	of its draft status.	APPR		



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	CONTRACT NO.
PRELIMINARY ENGINEERING	T–1042–0220
PURPLE LINE LIGHT RAIL	DRAWING NO.
LYTTONSVILLE YARD FACILITY	TW–L08
PROFILE STA Y4 0+00 TO STA Y4 7+50	SHEET NO.
DATE: DECEMBER 2013 SCALE: AS SHOWN	<u>37</u> OF <u>443</u>











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PURPLE LINE LIGHT RAIL

LYTTONSVILLE YARD FACILITY

PROFILE STA Y4 7+50 TO STA Y4 11+99.64

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CONTRACT NO. T-1042-0220 DRAWING NO. TW-L09 SHEET NO. <u>38</u> of <u>443</u>

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LYTTONSVILLE YARD FACILITY PROFILE STA Y5 0+00 TO STA Y5 11+27.81 DATE: DECEMBER 2013 SCALE: AS SHOWN	TW-L10           SHEET NO.           39 OF 443	c:\pwworkin











	CONTRACT NO.
PRELIMINARY ENGINEERING	T–1042–0220
PURPLE LINE LIGHT RAIL	DRAWING NO.
LYTTONSVILLE YARD FACILITY	TW–L11
PROFILE STA Y6 0+00 TO STA Y6 7+50	SHEET NO.
DATE: DECEMBER 2013 SCALE: AS SHOWN	_40_ OF _443_











PRELIMINARY ENGINEERING	
	1-1042-0220
PURPLE LINE LIGHT RAIL	DRAWING NO.
LYTTONSVILLE YARD FACILITY	TW-L12
PROFILE STA Y6 7+50 TO STA Y6 12+26.92	SHEET NO.
DATE: DECEMBER 2013 SCALE: AS SHOWN	41_ OF443

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SCALE: 1"=10'		
		CONTRACT NO.
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PURPLE L	LINE LIGHT RAIL	DRAWING NO.
LYTTONSVIL	LE YARD FACILITY	TW–L13
PROFILE STA Y7	0+00 TO STA Y7 7+00	SHEET NO.
TE: DECEMBER 2013	SCALE: AS SHOWN	42 OF 443

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PURPLE	LINE LIGHT	RAIL	DRAWING NO.	
LYTTONSVIL	LE YARD FA	ACILITY	TW-L14	
PROFILE STA Y7 7	+00 TO ST	A Y7 12+33.17	SHEET NO.	
DATE: DECEMBER 2013		SCALE: AS SHOWN		3



TICAL SCALE: 1"=10'
CONTRACT NO.
T-1042-0220
PURPLE LINE LIGHT RAIL DRAWING NO.
LYTTONSVILLE YARD FACILITY TW-L15
PROFILE STA Y8 0+00 TO STA Y8 11+54.41 SHEET NO.
DATE: DECEMBER 2013 SCALE: AS SHOWN 44 OF 443



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am a duly licensed professional engineer under the laws of the State of Maryland	<i>the completion of the design phase. Any reliance upon any of these plans is made with full understanding of its draft status.</i>	PPR CHECK	REJ	
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PROFESSIONAL CERTIFICATION         I hereby certify that these         documents were prepared or         approved by me, and that I         am a duly licensed professional         engineer under the laws of         the State of Maryland         License No.       Expiration Date	DRAFT: Information shown is based on 30 percent preliminary engineering plans and may be subject to orther revision pending refinements to the plans during he completion of the design phase. Any reliance upon any of these plans is made with full understanding of its draft status.	APPR CHECK DRAWN DESGN RECK DRAWN DESGN	PRELIMINARY ENGINEERING PURPLE LINE LIGHT RAIL LYTTONSVILLE YARD FACILITY PROFILE STA Y10 0+00 TO STA Y10 7+30.61 DATE: DECEMBER 2013 SCALE: AS SHOWN	CONTRACT NO. T-1042-0220 DRAWING NO. TW-L19 SHEET NO. 48 OF 443

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18.50′ 18.50′ 23.00′ 18.50' 20.50' 23.00′ Ψ\_ Y5 €\_|Y4 € Y7 € Y6 <u></u> ГР ¢ Y9 -|-------MAINTENANCE ROAD (TYP) -COLUMNS TO SUPPORT PARKING STRUCTURE (TYP) -100 -90 -70 -60 -50 -30 -20 10 -80 -40 -10 -110 0 STA Y9 17+50

### LIMITS OF PARKING STRUCTURE (REFER TO STRUCTURAL DRAWINGS IN VOLUME 8 FOR MORE INFORMATION)

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am a duly licensed professional engineer under the laws of the State of Maryland	<i>the completion of the design phase. Any reliance upon any of these plans is made with full understanding of its draft status.</i>	PR CHECK
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TYPICAL SECTIONS

DATE: DECEMBER 2013

SCALE: AS SHOWN

SHEET NO.

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	<u>-</u>	ARCHITEC	IURAL ADDREVIATIONS			
ABV AC ADD ADD ADD ADD ADD ADD ADD ADD ADD	ABOVE AIR CONDITIONING (CONDITIONER) ACCESS DOOR (OR PANEL) AMERICANS WITH DISABILITIES ACT ADDENDUM ADJACENT ABOVE EXISTING SLAB ACCESS FLOOR ABOVE FINISHED FLOOR AIR HANDLING UNIT ALTERNATE ALUMINUM ACOUSTICAL PANEL CEILING (LAY-IN) APPROXIMATE ARCHITECTURAL ACOUSTICAL WALL PANEL ASPHALT BOTTOM OF CURB BOARD BETWEEN BUILDING BEAM BOTTOM OF STEEL BOTTOM	F FDR FDC FEC FEH FIN FCE FIN FCE FIN FCE FIN FCE FEN FCE FEN FCE FRC FRC FRS FTWP FTG GA GAL V GB	FILLER FLOOR DRAIN OR FIRE DAMPER FOLDING DOOR (WOOD OR FABRIC) FIRE EXTINGUISHER CABINET FIRE EXTINGUISHER CABINET FIRE EXTINGUISHER FLAT HEAD FINISH OR FINISHED FAN COIL UNIT FIRE TREATED FIRE TREATED FIRE RATED FIRE RATED FIRE RATED FIBER-REINFORCED COATING FIBERGLASS REINFORCED PLASTIC FOLDING SHELF FOLDING SHOWER SEAT FOOT OR FEET FABRIC-WRAPPED PANEL (FABRICATED) FOOTING GAUGE GALVANIZED GRAB_BAR	PAV PC PFLAM PDLAS	PAVER TILE (FROM OVERHEAD TRACK) PRECAST CONCRETE PLASTIC FABRICATION PLATE PLASTIC LAMINATE PLASTER POLISHED CONCRETE PREFABRICATED PRESSURE TREATED PAINT PAPER TOWEL DISPENSER PARTITION POLYVINYL CHLORIDE QUARRY TILE QUARRY TILE QUARTY TILE QUARTITY RISER OR RADIUS RUBBER BASE ROOF DRAIN OR ROUND REQUIRED REFLECTED CEILING PLAN RESILIENT FLOORING (VINYL, RUBBER) REINFORCED OR REINFORCING RESINOUS FLOORING	
BR BLKG C/C CAB CARP CEM CIRC CARPT CER CG CH CJ CLOS CLOS CLOS	BRICK BLOCKING CONDUIT CENTER TO CENTER CABINET CARPET CEMENT CIRCULATION CARPET TILE CERAMIC CORNER GUARD CEILING HEIGHT CONTROL JOINT CLOSET CEILING CLEAR	GLM GMU GRD GL GP GVP GVPBS GRT H H H H H H H H H H H H H H H H H H H	GLASS UNIT MASONRY (GLASS BLOCK) GLAZED MASONRY UNIT GROUND GLASS GYPSUM PLASTER GYPSUM VENEER PLASTER GYPSUM BOARD (WALL OR CEILING) GYPSUM BOARD SHAFT-WALL ASSEMBLY GROUT HEAD HORIZONTAL BLIND HARDWARE HOLLOW METAL HOUR HEIGHT HOT WATER	REF REF RMNO RDB RUB RVX RVX SSCD SSC SSC SSC SSC SSC SSC SSC SSC SS	RETURN REVISION ROBE HOOK ROOM ROOM NUMBER ROUGH OPENING RUBBER RECESSED WASTE RECEPTACLE ROOF VENT REMOVE EXISTING SILL, SOUTH OR SINGLE SCHEDULE OR SCHEDULED SPECIAL COATING (OTHER THAN PAINT SYSTEMS) SOAP DISPENSER OR STORM DRAIN SHOWER CURTAIN ROD SECTION	
CMP CMU CO COL COMP CONT CONT CR CONSTR CSK CONSTR CS CT CTR CX CT CTR CX CT	CURRUGATED METAL PIPE CONCRETE MASONRY UNIT CENTERLINE CLEAR OPENING COLUMN COMPACTED CONCRETE CONTINUOUS COLD ROLLED COUNTERSUNK CONSTRUCTION CONCRETE SEALER CERAMIC TILE COUNTER CURTAIN WALL CONNECT TO EXISTING DOUBLE	HVAC HTR HOR ID IN INSUL INT INV IT JC JT JC JT KIT LAB LAV	HEATING, VENTILATING AND AIR CONDITIONING HEATER HORIZONTAL HIGH POINT INSIDE DIAMETER INCH INSULATION INTERIOR INVERT INFORMATION TECHNOLOGY JAMB JANITOR'S CLOSET JOINT KITCHEN LINTEL LABORATORY LAVATORY	SF SFT SH SHT SIM SJ SOD SND SPEC SP SSM SSTAT SSTL	STOREFRONT STOREFRONT STRUCTURAL FACING TILE SHOWER SHEET SIMILAR STEEL JOIST SECTIONAL OVERHEAD DOOR (STEEL; ALUMINUM: PLASTIC PANEL) SANITARY NAPKIN DISPOSAL SPECIFICATION STAND PIPE SQUARE STAINLESS STEEL OR SERVICE SINK SOLID SURFACING MATERIAL STATIONARY STEEL STEL	
DET DET DIA DIST DIST DO DR DO DR DB DB DB DB DB DB DB DB DB DB DB DB DB	DEMOLITION DETAIL DIAMETER DIRECTORY DISTRICT DOWN DOOR OPENING DOOR DOWNSPOUT DRAWING EAST EACH EACH FACE EXTERIOR FINISH SYSTEM EXTERIOR FINISH SYSTEM EXTERIOR INSULATION AND FINISH SYSTEM EXTERIOR INSULATION AND FINISH SYSTEM EXPANSION JOINT ELECTRIC OR ELECTRICAL	LIV LUCC LP LT LTG LV MAS MATH MAX METF MEB MECH	LINOLEUM FLOOR COVERING LONG LEG VERTICAL LOCKER LOCATION LOW POINT LIGHT LIGHT LIGHTONG LOUVER MIRROR OR MEN MASONRY MATERIAL MACHINE MAXIMUM METAL MEDIUM DENSITY FIBERBOARD MINERAL FIBER BLANKET MECHANICAL	SUP SUSP SUSP SWR SYS TOB T&B TCD TCD TER TCD TER TDS T&C TEL TOW TPC	SUPERVISOR SUPERVISOR SUSPENDED SURFACE-MOUNTED WASTE RECEPTACLE SYSTEM TILE TOWEL BAR TOP & BOTTOM TOP OF CURB TOILET SEAT COVER DISPENSER TERRAZZO THICK TOP OF STEEL TONGUE & GROOVE TELEPHONE TOP OF TOP OF WALL TOILET PARTITION (WATER CLOSET; URINAL)	N A
LLV EMER EMER EPBM EPPB EPQXIP EQQXIP EQVIP EUVCAT EWCAT EWCAT EXP	ELEVATUR ENTRY MAT EMERGENCY ELEVATION ETHYLENE PROPYLENE-BASED (SINGLE PLY ROOFING) ELECTRIC PANEL BOX ETHYLENE-PROPYLENE-DIENE MEMBRANE EXPANDED POLYSTYRENE EQUAL EPOXY EQUIPMENT ESTIMATE ELECTRIC UNIT HEATER EACH WAY ELECTRIC WATER COOLER ELECTRIC WATER COOLER ELECTRIC WATER COOLER ELECTRIC WATER COOLER EXISTING EXPANSION OR EXPOSED	MF R ME T MH MISC MK MO MP MR MTL MTD N NA ND NIC NOM NTS NO	MANUFACTURER METAL MANHOLE MINIMUM MISCELLANEOUS MARK MASONRY OPENING METAL PANEL MOP RACK METAL MOUNTED NORTH NOT APPLICABLE SANITARY NAPKIN DISPENSER NOT IN CONTRACT NOMINAL NOT TO SCALE NUMBER	TYP U TR UR UNO VB VCT VDB VCB VCB VEST VP VS VIF VRC W	IUILEI PAPER DISPENSER TYPICAL UNIT SHOWER: SCREEN) TREAD URINAL UNLESS NOTED OTHERWISE VENT VINYL BASE VINYL COMPOSITION TILE VISUAL DISPLAY BOARD (HINGED CONFERENCE UNIT) VERTICAL VESTIBULE VAPOR BARRIER VERTICAL STANDPIPE VERTICAL STANDPIPE VERIFY IN FIELD VERTICAL RECIPROCATING CONVEYOR WOMEN, WIDTH, WEST OR WOVEN	NO (T
ΕXΙ	EXTERIUR	OA OC OD OFF OHD OP OHG OPNG OPP OZ	OVERALL ON CENTER OUTSIDE DIAMETER OFFICE OVERHEAD COILING DOOR OPERABLE PANEL PARTITION (HUNG) OVERHEAD COILING GRILLE OPENING OPPOSITE OUNCE	W/ WC WHT WD WO WO WO WC WT YD YR	WITH WATER CLOSET OR WALL COVERING (VINYL OR TEXTILE WALL COVERING; WALL PAPER) WEEP HOLE WHITE WOOD WATERPROOF OR WORKING POINT WINDOW OPENING WALK OFF MAT WATER RESISTANT OR WASTE RECEPTACLE WEIGHT WOVEN WIRE FABRIC YARD YEAR	

**MARYLAND TRANSIT ADMINISTRATION** Maryland

**E Gannett** Fleming **UR**84

# A DCHITECTURAL ARREVIATIONS

PROFESSIONAL CERTIFICATION	DRAFT: Information shown is based on 30 percent	DESGN	λΩΗ
documents were prepared or approved by me, and that I	<i>preliminary engineering plans and may be subject to</i> <i>further revision pending refinements to the plans during</i>	NWAND KAWN	λΩΗ
architect under the laws of the State of Maryland	the completion of the design phase. Any reliance upon any of these plans is made with full understanding	CHECK	AK
License No. Expiration Date	of its draft status.	APPR	



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### **BUILDING CODE INFORMATION**

A. APPLICABLE CODES:

1.	BUILDING CODE:	2012 INTERNAT
		MONTGOMERY CO
2.	SPRINKLER SYSTEM:	2007 NFPA 13
3.	LIFE SAFETY CODE:	2012 NFPA101W
		AMENDMENTS
4.	ACCESSIBILITY:	COMAR 05.02.0

- B. BUILDING HEIGHTS AND AREA:
- 1. CONSTRUCTION TYPE: IIA (PROTECTED)
- 2. OCCUPANCY CLASSIFICATION: SEPARATED MIXED USE, B, BUSINESS & S-2, LIGHT-HAZARD STORAGE
- 3. ALLOWABLE AREA, USE S-2: FRONTAGE INCREASE(65%): SPRINKLER INCREASE(200%): TOTAL INCREASE ALLOWED: FLOOR AREA PROVIDED:
- 4. ALLOWABLE AREA, USE B: FRONTAGE INCREASE(30%): SPRINKLER INCREASE(200%): TOTAL INCREASE ALLOWED: FLOOR AREA PROVIDED:
- 5. RATIO OF AREA PROVIDED BY USE: S-2: 117,000/142,350 = .82B: 11,540/123,725 = .092SUM OF RATIOS: .92 < 1.0 (SEE SECTION 508.4.2)
- 6. YARD LEVEL SQUARE FOOTAGE: 117,000 SF
- 7. FIRST FLOOR SQUARE FOOTAGE: 11,540 SF
- 8. SECOND FLOOR SQUARE FOOTAGE: 7,765 SF
- C. OCCUPANCY CALCULATION:
  - 1. YARD: N/A
  - 2. FIRST FLOOR BUSINESS: 11,540 SF/100 GROSS = 116
  - 4. SECOND FLOOR BUSINESS: 7,765 SF/100 GROSS = 78
  - 5. TOTAL BUSINESS: 194
  - 6. TOTAL STORAGE: 311
- D. OCCUPANCY AND EGRESS:
- 1. AUTOMATIC SPRINKLER AND EMERGENCY VOICE/ALARM COMM. SYSTEM
- FIRST FLOOR OCCUPANTS, USE B: 116, USE S-2: 311 REQD. DOORS/CORRIDORS WIDTH:  $(0.2 \times OCC.) = 24'' (2'-0'')$ PROVIDED DOOR WIDTH: USE B: 216" (18'-0"), USE S-2: N/A PROVIDED CORRIDOR WIDTH: USE B: 48" (4'-0")
- SECOND FLOOR OCCUPANTS, USE B:78 REQD. DOORS/CORRIDORS WIDTH:  $(0.2 \times OCC.) = 24'' (2'-0'')$ PROVIDED DOOR WIDTH: USE B: 72'' (6'-0'') PROVIDED CORRIDOR WIDTH: USE B: 48'' (4'-0'')
- ALLOWABLE TRAVEL DISTANCE: USE (B) WITH SPRINKLER SYSTEM: 300' USE (S-2) WITH SPRINKLER:
- SEPARATION OF USE GROUPS: Ε.
- 1. BETWEEN TYPE B AND TYPE S-2: 1 HR WITH SPRINKLERS
- F. FIRE-RESISTANCE RATING ROMTS. FOR BUILDING ELEMENTS (TABLE 601)
- 1. PRIMARY STRUCTURAL FRAME: 1 HR
- 2. EXTERIOR NON-BEARING WALLS: O HR (DISTANCE FROM
- 3. FLOOR CONSTRUCTION:
- 4. ROOF CONSTRUCTION:

RJH RJH DAK

DRAFT: Information shown is based on 30 percent preliminary engineering plans and may be subject to further revision pending refinements to the plans during the completion of the design phase. Any reliance upon any of these plans is made with full understanding of its draft status.



### **BUILDING CODE INFORMATION**

- A. APPLICABLE CODES:
- 2012 INTERNATIONAL BUILDING CODE W/ MONTGOMERY CO. AMENDMENTS 1. BUILDING CODE: 2. SPRINKLER SYSTEM: 2007 NFPA 13 3. LIFE SAFETY CODE: 2012 NFPA101 W/ MONTGOMERY CO. AMENDMENTS 4. ACCESSIBILITY: COMAR 05.02.02 ADDAAG 1994
- B. BUILDING HEIGHTS AND AREA:
- 1. CONSTRUCTION TYPE: IIA (PROTECTED)
- S-2, LIGHT-HAZARD STORAGE 2. OCCUPANCY CLASSIFICATION:
- 3. ALLOWABLE AREA, USE S-2: 39,000 SF AREA PROVIDED: 3,695 SF
- C. OCCUPANCY CALCULATION: N/A
- D. OCCUPANCY AND EGRESS:
- 1. AUTOMATIC SPRINKLER AND EMERGENCY VOICE/ALARM COMM. SYSTEM
- 2. FIRST FLOOR OCCUPANTS: 12 REQD. DOORS/CORRIDORS WIDTH: (0.2 × OCC.) = 2.4" PROVIDED DOOR WIDTH: 144" (12'-0") PROVIDED CORRIDOR WIDTH: USE B: 48"(4'-0")
- 3. ALLOWABLE TRAVEL DISTANCE: USE (S-2) WITH SPRINKLER: 250'
- E. SEPARATION OF USE GROUPS: N/A
- F. FIRE-RESISTANCE RATING ROMTS. FOR BUILDING ELEMENTS (TABLE 601)
- 1. PRIMARY STRUCTURAL FRAME:
- O HR (DISTANCE FROM ADJACENT USE > 15' AND < 20') 2. EXTERIOR NON-BEARING WALLS: 1 HR 3. FLOOR CONSTRUCTION:

1 HR

1 HR

- 4. ROOF CONSTRUCTION:
- G. 1 HR SEPARATION REQUIRED BETWEEN WASH BUILDING AND EGRESS STAIR.





MARYLAND TRANSIT

Maryland

**E Gannett** Fleming VR&A

### WASH BUILDING CODE ANALYSIS

SCALE:  ${}^{3}_{32}'' = 1' - 0''$ 

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documents were prepared or approved by me, and that I	preliminary engineering plans and may be subject to further revision pending refinements to the plans during	DRAWN	RJH
architect under the laws of the State of Maryland	the completion of the design phase. Any reliance upon any of these plans is made with full understanding	CHECK	DAK
License No. Expiration Date	of its draft status.	APPR	



# LEGEND

1 HOUR FIRE PARTITION/ENCLOSURE





PRELIMINARY ENGINEERING	contract no. <b>T–1042–0220</b>
PURPLE LINE LIGHT RAIL	DRAWING NO.
LYTTONSVILLE YARD FACILITY	AR-L03
CODE ANALYSIS – WASH BUILDING DATE: DECEMBER 2013 SCALE: 3/32" =1'-0"	_52_ OF _443_

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documents were prepared or approved by me, and that I	<i>preliminary engineering plans and may be subject to</i> <i>further revision pending refinements to the plans during</i>	DRAWN	RJH
architect under the laws of the State of Maryland	the completion of the design phase. Any reliance upon any of these plans is made with full understanding	CHECK	DAK
License No. Expiration Date	of its draft status.	APPR	







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cuments were prepared or proved by me, and that I	<i>preliminary engineering plans and may be subject to</i> <i>further revision pending refinements to the plans during</i>	RJH
chitect under the laws of e State of Maryland	the completion of the design phase. Any reliance upon any of these plans is made with full understanding	DAK
cense No. Expiration Date	of its draft status.	APPR









PROFESSIONAL CERTIFICATION       I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional architect under the laws of the State of Maryland       DRAFT: Information shown is based on 30 percent preliminary engineering plans and may be subject to further revision pending refinements to the plans during the completion of the design phase. Any reliance upon any of these plans is made with full understanding of its draft status.         License No.       Expiration Date	RJH RJH DAK	
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PROFESSIONAL CERTIFICATION I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional architect under the laws of the State of Maryland License No. Expiration Date	DRAFT: Information shown is based on 30 percent preliminary engineering plans and may be subject to further revision pending refinements to the plans during the completion of the design phase. Any reliance upon any of these plans is made with full understanding of its draft status.	APPR CHECK DRAWN DESGN	RJH RJH DAK
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MARYLAND TRANSIT ADMINISTRATION Maryland 

**E Gannett** Fleming WR84

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documents were prepared or approved by me, and that I	<i>preliminary engineering plans and may be subject to</i> <i>further revision pending refinements to the plans during</i>	DRAWN	RJH
architect under the laws of the State of Maryland	the completion of the design phase. Any reliance upon any of these plans is made with full understanding	CHECK	DAK
License No. Expiration Date	of its draft status.	APPR	





PRELIMINARY ENGINEERING	T–1042–0220
PURPLE LINE LIGHT RAIL	DRAWING NO.
LYTTONSVILLE YARD FACILITY	AR–L08
OFFICE - ROOF COMPOSITE PLAN	SHEET NO.
DATE: DECEMBER 2013 SCALE: 1/16" = 1'-0"	<u>57</u> of <u>443</u>

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PROFESSIONAL CERTIFICATIONI hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional architect under the laws of the State of MarylandDRAFT: Information shown is based on 30 percent preliminary engineering plans and may be subject to further revision pending refinements to the plans during the completion of the design phase. Any reliance upon any of these plans is made with full understanding of its draft status.	APPR CHECK DRAWN DESGN	RJH RJH DAK	
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documents were prepared or approved by me, and that I	preliminary engineering plans and may be subject to further revision pending refinements to the plans during	RJH
architect under the laws of the State of Maryland	<i>the completion of the design phase. Any reliance upon any of these plans is made with full understanding</i>	DAK
License No. Expiration Date	of its draft status.	APPR



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architect under the laws of the State of Maryland	the completion of the design phase. Any reliance upon any of these plans is made with full understanding	CHECK	DAK
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License No. Expiration Date

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architect under the laws of the State of Maryland	the completion of the design phase. Any reliance upon any of these plans is made with full understanding	CHECK	DAK
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**GENERAL NOTES** 



COFESSIONAL CERTIFICATION nereby certify that these icuments were prepared or proved by me, and that I in a duly licensed professional chitect under the laws of e State of Maryland	DRAFT: Information shown is based on 30 percent preliminary engineering plans and may be subject to further revision pending refinements to the plans during the completion of the design phase. Any reliance upon any of these plans is made with full understanding of its draft status.	PR CHECK DRAWN DESGN	RJH RJH DAK	
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1. FOR TOILET COMPARTMENTS MOUNTING HEIGHT SEE SHEET AR-L51 2. FOR VANITY TYPICAL DETAILS SEE SHEET AR-L52





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SIDESPLASH

WEEN ILTS.		
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ALLS FOR	AT 12" O.C.	5 <sup>1</sup> / <sub>2</sub> "



PROFESSIONAL CERTIFICATION	DRAFT: Information shown is based on 30 percent	DESGN	RJH
documents were prepared or approved by me, and that I	<i>preliminary engineering plans and may be subject to</i> <i>further revision pending refinements to the plans during</i>	DRAWN	RJH
architect under the laws of the State of Maryland	the completion of the design phase. Any reliance upon any of these plans is made with full understanding	CHECK	DAK
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### GENERAL NOTES

FOR TOILET COMPARTMENTS MOUNTING HEIGHT SEE SHEET AR-L51
 FOR TOILET TYPICAL STALL SEE SHEET AR-L50



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			4' <u>0</u> 4' SCALE: <sup>1</sup> /4"=1'-0"	8′
PROFESSIONAL CERTIFICATION I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional	DRAFT: Information shown is based on 30 percent preliminary engineering plans and may be subject to further revision pending refinements to the plans during	RJH RJG RJG	PRELIMINARY ENGINEERING PURPLE LINE LIGHT RAIL	contract no. <b>T–1042–0220</b> drawing no.
architect under the laws of the State of Maryland License No. Expiration Date	the completion of the design phase. Any reliance upon any of these plans is made with full understanding of its draft status.	APPR CHECK	LYTTONSVILLE YARD FACILITY ENLARGED STAIR\ELEVATOR PLANS S1 E-1 E-2 DATE: DECEMBER 2013 SCALE: 1/4" = 1'-0"	AR-L70 Sheet NO. _79_ of _443_

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PROFESSIONAL CERTIFICATION         I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional architect under the laws of the State of Maryland         License No.       Expiration Date	RJH RJH DAK
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![](_page_82_Figure_0.jpeg)

SIONAL CERTIFICATION certify that these ts were prepared or by me, and that I ly licensed professional under the laws of e of Maryland No. Expiration Date	DRAFT: Information shown is based on 30 percent preliminary engineering plans and may be subject to further revision pending refinements to the plans during the completion of the design phase. Any reliance upon any of these plans is made with full understanding of its draft status.	APPR CHECK DRAWN DESGN	RJH RJH DAK
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4′ 0 4′	8′
SCALE: '<4"=1'-0"	
	CONTRACT NO.
PRELIMINART ENGINEERING	T–1042–0220
PURPLE LINE LIGHT RAIL	DRAWING NO.
LYTTONSVILLE YARD FACILITY	AR–L74
STAIR S2 SECTIONS	SHEET NO.
DATE: DECEMBER 2013 SCALE: 1/4" = 1'-0"	83 OF 443

N         N			DOOR SCHEDULE	DOOR SCHEDULE						
0         0										
Image: Market			FRAMES FIRE RATING'L REMARKS	FINISH		UUURS FRAMES FIRE RATING'L REMARKS				
1       1		SET WIDTH LUCATION TYPE MAIL	_ IYPE MAIL HEAD JAMB SILL			ET (NOM) LUCATION THE MATE THE MATE THEAD JAMB SILL DOOR FRAME				
1       2       0	100	3'-O" UNISEX TOILET ROOM 100 D1 HM	F1 HM			3 -0 INCIDENT ROUM 219 D1 HM F1 HM				
Image: Section of the sectin of the section of the section	101	3'-O" LIGHT RAIL BREAK ROOM 101 D1 HM	F2 HM		A 220	3 -0 SUPERVISUR 220 D1 HM F1 HM				
Image: Provide	102	3'-O" LIGHT RAIL OFFICE 102 D2 HM	F2 HM			3'-0" UNISEX TOILET ROOM 221 D1 HM F1 HM				
1       1/2       2/2	103	3'-0" LIGHT RAIL MAINTENANCE STORAGE 103HM	F3 HM			3'-0" OFFICE 222 D1 HM F1 HM				
1       1	104.1	3'-0" CLEANING SUPPLY STORAGE 104 D1 HM	F2 HM			3'-0" TECHNICIANS 223 D1 HM F1 HM				
Image: Discrete Series Seri	104.2	8'-0" XCL1EDA'N-DN'G SUPPLY STORAGE 104 ALUM	STL STL			3'-O" OPERATIONS CONTROL CTR 224 D1 HM F1 HM				
Image: Description         Description <thdescription< th=""></thdescription<>	105	3'-O" ELECTRICAL ROOM 105 D1 HM	F2 HM			3'-O" OPERATIONS CONTROL CTR 224 D1 HM F1 HM				
Image: Product of the second of the	106	3'-0" BUL2K FLUID STORAGE 106 D6 HM	F3 HM			3'-0" EQUIPMENT 226 D1 HM F1 HM				
1       3       5       7       14       0       1       1       0         1       3       5       7       14       0       1       0       1       0         1       1       5       7       10       1 <th1< th="">       1       <th1< th="">       1       1       1<td>107</td><td>3'-O" FIRE PROTECTION 107 D1 HM</td><td>F2 HM</td><td></td><td>226.2</td><td>3'-0" EQUIPMENT 226 D1 HM F1 HM</td></th1<></th1<>	107	3'-O" FIRE PROTECTION 107 D1 HM	F2 HM		226.2	3'-0" EQUIPMENT 226 D1 HM F1 HM				
No.         Set of state sta	108	3'-O" FIRE PROTECTION 108 D1 HM	F2 HM		227	3'-O" UNISEX TOILET ROOM 227 D1 HM F1 HM				
No.         No. <td>) □ 109 □ □</td> <td>3'-0" UNISEX TOILET ROOM 109 D1 HM</td> <td>F1 HM</td> <td></td> <td>228</td> <td>3'-0" CORRIDOR 228 D2 HM F1 HM</td>	) □ 109 □ □	3'-0" UNISEX TOILET ROOM 109 D1 HM	F1 HM		228	3'-0" CORRIDOR 228 D2 HM F1 HM				
1         1	<u> </u>	3'-0" UNISEX TOILET ROOM 110 D1 HM	F1 HM		229	3'-0" QUIET ROOM 229 D1 HM F1 HM				
1       2       2       2       2       2       2       2       3       3       3       3       3       3       4	₩ ₩ ₩ ₩	3'-O" CLEANING BREAK ROOM 112 D1 HM	F2 HM		230.1	3'-0" VESTIBULE 230 D5 AL AL				
I       3 - 4° - 40 + 40 + 10 + 10       3       10       2	113	3'-O" CLEANING OFFICE 113 D2 HM	F1 HM		230.2	3'-0" VESTIBULE 230 D5 HM F1 HM				
10       3/0       Normal National	114	3'-O" WATER SERVICE 114 D1 HM	F2 HM		233	3'-O" WOMENS TOILET ROOM D1 HM F1 HM				
1       2	115	3'-0" EXLE2CTRICAL SERVICE 115 D6 HM	F3 HM		234	3'-0" MENS TOILET ROOM D1 HM F1 HM				
No         No<	116	3'-0" EMERGENCY ELECTRICAL SERVICE D116 HM	F2 HM		235	3'-0" OPER BREAK RM /KITCHEN 235 D5 AL AL AL				
I         1/2         2/2	117.1	3'-0" WASH BAY 117 D1 HM	F2 HM		236	3'-0" JANITOR CLOSET 236 D1 HM F1 HM				
Image: 1 market in a serie 1 market in a se	117.2	3'-0" WASH BAY 117 D1 HM	F2 HM		237	3'-0" BUILDING MAINTENANCE 237 D1 HM F1 HM				
Image: Normal Sector         Image: No	117.3	3'-0" WASH BAY 117 D1 HM	F2 HM		238	3'-0" ELEVATOR MACHINE CLOSET 238 D1 HM F1 HM				
Image: Market	117.4	3'-0" WASH BAY 117 D1 HM	F2 HM		S3.1	3'-0" STAIR 3 AT OFFICE FIRST FL D1 HM F1 HM				
Matrix         Matrix<	117.5	24'-0" x12'-0 WASH BAY 117 ALUM	STL		\$3.2	3'-0" STAIR 3 AT OFFICE FIRST FL D1 HM F1 HM				
N         C	117.6	24'-0" x12'-0 WASH BAY 117 ALUM	STL		S2.5	3'-0" STAIR 2 AT OFFICE SECOND FL D1 HM F1 HM				
1         1	118	3'-0" ELECTRICAL 118 D6 HM	F3 HM		\$3.3	3'-0" STAIR 3 AT OFFICE SECOND FL D1 HM F1 HM				
N         0	119	3'-0" COMMUNICATIONS CLOSET 119 D6 HM	F3 HM		00 300	3'-0" ELEVATOR LOBBY 300 D2 HM F1 HM				
Image: Note:	120	3'-0" FIRE PROTECTION 120 D1 HM	F2 HM		<u> </u>	3'2 <sup>0</sup> " CORRIDOR 301 D7 HM F3 HM				
No.         No. <td>121</td> <td>3'-0" COMPRESSOR ROOM 121 D6 HM</td> <td>F3 HM</td> <td></td> <td>8 303</td> <td>3'-0" UNISEX TOILET ROOM 303 D1 HM F1 HM</td>	121	3'-0" COMPRESSOR ROOM 121 D6 HM	F3 HM		8 303	3'-0" UNISEX TOILET ROOM 303 D1 HM F1 HM				
3         3         5	S2.1	3'-0" STAIR 2 AT YARD LEVEL D1 HM	F2 HM		305	3'-0" LIGHT RAIL DEPUTY DIR 305 D1 HM F1 HM				
V 0         S 0 <td>S2.2</td> <td>3'-0" STAIR 2 AT YARD LEVEL ROOF D1 HM</td> <td>F2 HM</td> <td></td> <td>出 306</td> <td>3'-0" LIGHT RAIL DIRECTOR 306 D1 HM F1 HM</td>	S2.2	3'-0" STAIR 2 AT YARD LEVEL ROOF D1 HM	F2 HM		出 306	3'-0" LIGHT RAIL DIRECTOR 306 D1 HM F1 HM				
1         2         7-0° STAR 2 AT UPICE FIRST 74 B         0 <t< td=""><td>S2.3</td><td>3'-0" STAIR 2 AT OFFICE FIRST FLR D1 HM</td><td>F1         HM         I</td><td></td><td>L 307</td><td>3'-0" INCIDENT ROOM 307 D1 HM F1 HM</td></t<>	S2.3	3'-0" STAIR 2 AT OFFICE FIRST FLR D1 HM	F1         HM         I		L 307	3'-0" INCIDENT ROOM 307 D1 HM F1 HM				
V         V         V         A         M	\$2.4	3'-0" STAIR 2 AT OFFICE FIRST FLR D1 HM	F2 HM		308	3'-0" I.T. 308 D1 HM F1 HM				
V         V	200.1	$\frac{3'}{2} = 0''$ VESTIBULE 200 D5 AL	AL		309	3'-0" CONFERENCE 309 D2 HM F1 HM				
No         S	200.2	$\frac{3}{2} = 0^{"}$ VESTIBULE 200 D5 HM	F1 HM		311	3'-0" ELECTRICAL 311 D6 HM F3 HM				
V         V	201	3'-0" LOBBY 201 D2 HM	F1 HM		312	3'-O" COMMUNICATIONS ROOM 312 D1 HM F1 HM				
203       3'-0'       CORRIDOR 203       02       HH       F1       HH       HH<	202	3'-0" I.T D1 HM	F1 HM		313	3'-0" MEC2HANICAL 313 D6 HM F3 HM				
V         V	ш ш 203	3'-0" CORRIDOR 203 D2 HM	F 1 HM		314	3'-0" UNISEX TOILET ROOM 314 D1 HM F1 HM				
Vert	× 204	3'-0" CORRIDOR 204 D2 HM	F1 HM		315	3'-0" UNISEX TOILET ROOM 315 D1 HM F1 HM				
3' - 0'              SST. TRANS. SUPERVISOR 207 01             HM               HM               FI             HM               FI             HM               FI               STOCK               STOCK	206	3'-0" TRANS. SUPERVISOR 206 D1 HM	F1 HM		318	3'-0" JANITOR CLOSET 318 D1 HM F1 HM				
0         3'-0"         WORK BLOCK COORDINATOR 208         01         HM         F1         HM         G		3'-0" ASST. TRANS. SUPERVISOR 207 D1 HM	F1 HM		319	3'-0" STORAGE 319 D1 HM F1 HM				
1       3'-0"       UNISEX TOLLET ROOM 210       D1       HM       F1       HM       G       <	208	3'-0" WORK BLOCK COORDINATOR 208 D1 HM	F1 HM		320	3'-0" CLASSROOM 320 D2 HM F1 HM				
Image: Normal Sine Streps       Image:		3'-0" UNISEX TOILET ROOM 210 D1 HM	F1 HM		321.1	3'-0" TRAINING OFFICE 321 D2 HM F1 HM				
V     X     Z     X <td></td> <td>3'-0" ELECTRICAL 211 D6 HM</td> <td>F3 HM</td> <td></td> <td>321.2</td> <td>3'-0" TRAINING OFFICE 321 D1 HM F1 HM</td>		3'-0" ELECTRICAL 211 D6 HM	F3 HM		321.2	3'-0" TRAINING OFFICE 321 D1 HM F1 HM				
V V V V V V V V V V V V V V V V V V V		$\frac{X - 2}{3' - 0''} MECHANICAL 212 D6 HM$	F3 HM			3'-0" STAIR 2 AT ROOF LEVEL D11 AL AL AL				
Image: Normal and State Contraction       Image: Normal and State Co		<u>Х 2</u> 3'-0" FOLLIPMENT 213 D1 ЦМ								
214A     4'-0"     LOST AND FOUND 214A     HM     HM     HM       215     3'-0"     CORRIDOR 215     D2     HM     F1     HM       218     3'-0"     YARD MASTER 218     D1     HM     E1     HM		3'-0'' DISPATCH 214 D1 UM								
$\begin{array}{c c c c c c c c c c c c c c c c c c c $										
218     3'-0"     YARD MASTER 218     D1     HM     E1     HM		$\frac{1}{3'-0''} COPPIDOP 215 D2 UM$			DOOR SCHEDUL	LE NOTES:				
	210	3'-0" YARD MASTER 219 D1 114			1. TYPICA	AL DOOR HEIGHT: 7'-0" UNLESS NOTED OTHERWISE				

![](_page_83_Picture_3.jpeg)

![](_page_83_Picture_4.jpeg)

3. HEAD, JAMB AND SILL DETAILS ARE LOCATED ON DRAWING A8.XX UNLESS NOTED OTHERWISE

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approved by me, and that I am a duly licensed professional
architect under the laws of the State of Maryland

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DESGN	RJH
DRAWN	RJH
CHECK	DAK
APPR	

License No. Expiration Date

		CONTRACT NO.
PRELIMINARY ENGINEERI	T–1042–0220	
PURPLE LINE LIGHT RA	DRAWING NO.	
I YTTONSVILLE YARD FACI	ITY	AR–L80
DOOR SCHEDULES		SHEET NO.
DATE: DECEMBER 2013	CALE: <b>N.T.S.</b>	<u>84</u> OF <u>443</u>

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![](_page_84_Figure_0.jpeg)

![](_page_84_Figure_1.jpeg)

F 5

F6

![](_page_84_Picture_4.jpeg)

D8

![](_page_84_Picture_5.jpeg)

D9

![](_page_84_Picture_6.jpeg)

![](_page_84_Picture_7.jpeg)

D10

D11

PROFESSIONAL CERTIFICATION I hereby certify that these documents were prepared or	DRAFT: Information shown is based on 30 percent $preliminary engineering plans and may be subject to \mathbf{x}$	RJH BJH
approved by me, and that I am a duly licensed professional architect under the laws of the State of Maryland	the completion pending refinements to the plans during the completion of the design phase. Any reliance upon any of these plans is made with full understanding	DAK
License No. Expiration Date	of its draft status.	

2 <u>0</u> 2'	4 ′
SCALE: 3/4"=1'-0"	
PRELIMINARY ENGINEERING PURPLE LINE LIGHT RAIL	contract no. <b>T–1042–0220</b> drawing no.
LYTTONSVILLE YARD FACILITY DOOR AND MISCELLANEOUS DETAILS DATE: DECEMBER 2013 SCALE: AS SHOWN	AR-L81 Sheet NO. _85_ of _443_

![](_page_85_Figure_0.jpeg)

![](_page_85_Figure_1.jpeg)

![](_page_85_Figure_2.jpeg)

PROFESSIONAL CERTIFICATION         I hereby certify that these         documents were prepared or         approved by me, and that I         am a duly licensed professional         architect under the laws of         the State of Maryland         License No.         Expiration Date	RJH RJH DAK
--	-------------------

	ROOM FINISH SCHEDULE										
CAT						WA	_LS		CEIL	ING	
	ROOM NO.	DESCRIPTION	FLOOR	BASE	NORTH	EAST	SOUTH	WEST	TYPE	HEIGHT	REMARKS
	100	UNISEX TOILET ROOM	EPX	EPX	PT	PT	PT	PT	GYPB/APC&	-6″/9-0'	′₩SEE RCP ON SHEET AR-L20
	101	LIGHT RAIL BREAK ROOM	CS	VB	PT	PT	PT	PT	APC	9′-0″	
	102	LIGHT RAIL OFFICE	CS	VB	PT	PT	PT	PT	APC	9′-0″	
	103	LIGHT RAIL MAINTENANCE STORAGE	EPX	N/A	PT	PT	PT	PT	EXP*	EXP*	*EXPOSED STRUCTURE
	104	CLEANING SUPPLY STORAGE	EPX	N/A	PT	PT	PT	PT	EXP*	EXP*	*EXPOSED STRUCTURE
	105	ELECTRICAL ROOM	EPX	N/A	PT	PT	PT	PT	EXP*	EXP*	*EXPOSED STRUCTURE
	106	BULK FLUID STORAGE	EPX	N/A	PT	PT	PT	PT	EXP*	EXP*	*EXPOSED STRUCTURE
	107	FIRE PROTECTION	EPX	N/A	PT	PT	PT	PT	EXP*	EXP*	*EXPOSED STRUCTURE
Ε<	108	FIRE PROTECTION	EPX	N/A	PT	PT	PT	PT	EXP*	EXP*	*EXPOSED STRUCTURE
2D L	109	UNISEX TOILET ROOM	EPX	EPX	PT	PT	PT	PT	GYPB/APC&	-6″/9-0′	′₩SEE RCP ON SHEET AR-L20
ΥAF	110	UNISEX TOILET ROOM	EPX	EPX	PT	PT	PT	PT	APC	9′-0″	
	111	CORRIDOR	CS	VB	PT	PT	PT	PT	GYPB	8′-6″	
	112	CLEANING BREAK ROOM	CS	VB	PT	PT	PT	PT	APC	9′-0″	
	113	CLEANING OFFICE	CS	VB	PT	PT	PT	PT	APC	9′-0″	
	114	WATER SERVICE	EPX	N/A	PT	PT	PT	PT	EXP*	EXP*	*EXPOSED STRUCTURE
	115	ELECTRICAL SERVICE	EPX	N/A	PT	PT	PT	PT	EXP*	EXP*	*EXPOSED STRUCTURE
	116	EMERGENCY ELECTRICAL SERVICE	EPX	N/A	PT	PT	PT	PT	EXP*	EXP*	*EXPOSED STRUCTURE
	117	WASH BAY	EPX	N/A	PT	PT	PT	PT	EXP*	EXP*	*EXPOSED STRUCTURE
	118	ELECTRICAL	EPX	N/A	PT	PT	PT	PT	EXP*	EXP*	*EXPOSED STRUCTURE
	119	COMMUNICATIONS CLOSET	EPX	N/A	PT	PT	PT	PT	EXP*	EXP*	*EXPOSED STRUCTURE
	120	FIRE PROTECTION	EPX	NZA	PT	PT	PT	PT	EXP*	EXP*	*EXPOSED STRUCTURE
	121	COMPRESSOR ROOM	EPX	N/A	PT	PT	PT	PT	EXP*	EXP*	*EXPOSED STRUCTURE
	S2	STAIR 2 AT YARD LEVEL		VB	PT	PT	PT	PT	EXP*	EXP*	*EXPOSED STRUCTURE
	S2	STAIR 2 AT YARD LEVEL ROOF		VB	PT	PT	PT	PT	EXP*	EXP*	*EXPOSED STRUCTURE
	122	ELEVATOR LOBBY AT BROOKVILLE RD	CS	VB	PT	PT	PT	PT	APC	9-0″	
	S2	STAIR 2 AT OFFICE FIRST FLOOR		VB	PT / S/	F PT	PT	PT / S	S/F EXP*	EXP*	*EXPOSED STRUCTURE
	S3	STAIR 3 AT OFFICE FIRST FLOOR		VB	PT	PT	PT	PT	EXP*	EXP*	*EXPOSED STRUCTURE
	200	VESTIBULE	WOM/CS	VB	PT	PT	PT	PT	GYPB	10′-0″	_
	201	LOBBY	CS	VB	PT	PT	PT	PT	GYPB/APC*	10′-0″/	*SEE RCP ON SHEET AR-L22
	202	Ι.Τ.	EPX	VB	PT	PT	PT	PT	APC	9-0"	_
	203	CORRIDOR	VCT	VB	PT	PT	PT	PT	APC	10′-0″	
	204	CORRIDOR	VCT	VB	PT	PT	PT	PT	APC	10′-0″	
E VE	205	ADMINISTRATION/COPY	VCT	VB	PT	PT	PT	CW/PT	APC	10′-0″	
	206	TRANSPORTATION SUPERVISOR	CARP	VB	PT	CW/PT	PT	PT	APC	10′-0″	_
DE	207	ASSISTANT TRANSPORTATION SUPERV.	CARP	VB	PT	CW/PT	PT	PT	APC	10′-0″	_
AT	208	WORK BLOCK COORDINATOR	CARP	VB	PT	PT	PT	CW/PT	APC	10′-0″	
008	209	TEAM ROOM	VCT	VB	PT	PT	PT	PT	APC	10′-0″	
	210	UNISEX TOILET ROOM	EPX	EPX	PT	PT	PT	PT	APC/GYPB*	10′-0″	*SEE RCP ON SHEET AR-L22
RST	211	ELECTRICAL	EPX	EPX	PT	PT	PT	PT	EXP*	EXP*	*EXPOSED STRUCTURE
	212	MECHANICAL	EPX	EPX	PT	PT	PT	PT	EXP*	EXP*	*EXPOSED STRUCTURE
ICE	213	EQUIPMENT	EPX	EPX	PT	PT	PT	PT	APC	10′-0″	
JO	214	DISPATCH	CARP	VB	CW/PT	CW/PT	CW/PT	PT	APC	10′-0″	
	214A	LOST AND FOUND	CARP	VB	PT	PT	PT	PT	GYPB	9-0″	-
	215	CORRIDOR	VCT	VB	PT	PT	PT	PT	EXP*	EXP*	*EXPOSED STRUCTURE
	216	CORRIDOR	VCT	VB	PT	PT	PT	PT	EXP*	EXP*	*EXPOSED STRUCTURE
	217	TEAM ROOM	VCT	VB	CW/PT	CW/PT	PT	PT	APC/EXP*	9'-0"/	*SEE RCP ON SHEET AR-122
	218	YARD MASTER	CARP	VB	PT	PT	CW/PT	PT	APC	10'-0"	
	219	INCIDENT ROOM	CARP	VB	PT	PT	CW/PT	PT	APC.	10′ –0″	
			0/11/1		<u>                                     </u>	''					<u> </u>

**MARYLAND TRANSIT ADMINISTRATION** Maryland

**Gannett** Fleming

NO					ROOM	FINISH	SCHEDU	JLE			
CATI						WAL	LS		CEIL	ING	
	ROOM NO.	DESCRIPTION	FLOOR	BASE	NORTH	EAST	SOUTH	WEST	TYPE	HEIGHT	REMARKS
	220	SUPERVISOR	CARP	VB	PT	PT	PT	PT	APC	10′-0″	
	221	UNISEX TOILET ROOM	EPX	EPX	PT	PT	PT	PT	APC	9′-0″	
	222	OFFICE	CARP	VB	PT	PT	PT	PT	APC	10′-0″	
	223	TECHNICIANS	CARP	VB	PT	РT	PT	PT	APC	10′-0″	
	224	OPERATIONS CONTROL CENTER	VCT	VB	PT	PT	PT	PT	APC	10′-0″	
	225	CORRIDOR	VCT	VB	PT	PT	PT	PT	EXP*	EXP*	*EXPOSED STRUCTURE
DE (	226	EQUIPMENT	VCT	VB	PT	PT	PT	PT	APC	10′-0″	
AT	227	UNISEX TOILET ROOM	EPX	EPX	PT	PT	PT	PT	GYPB/APC*	8′-6″⁄ 9′-0″ <del>*</del>	*SEE RCP ON SHEET AR-L22
NOC NOC	228	CORRIDOR	VCT	VB	PT	PT	PT	PT	EXP*	EXP*	*EXPOSED STRUCTURE
	229	QUIET ROOM	CS	VB	PT	PT	PT	PT	APC	10′-0″	
RST	230	VESTIBULE	WOM/CS	VB	PT	PT	PT	PT	GYPB	10′-0″	
	231	CORRIDOR	CS	VB	PT	PT	PT	PT	APC/GYPB /EXP*	VARIES*	*SEE RCP ON SHEET AR-L22
ICE	232	LOCKERS	CS	VB	PT	PT	PT	PT	GYPB /EXP*	9'-0"/ EXP*	*SEE RCP ON SHEET AR-L22
	233	WOMENS TOILET ROOM	EPX	EPX	PT	PT	PT	PT	GYPB /APC*	9′-0″ /10-0″*	*SEE RCP ON SHEET AR-L22
	234	MENS TOILET ROOM	EPX	EPX	PT	PT	PT	PT	GYPB /APC*	9'-0" /10-0"*	*SEE RCP ON SHEET AR-L22
	235	OPERATOR BREAK ROOM/KITCHENETTE	CS	VB	PT	PT	PT	PT	APC /EXP*	VARIES*	*SEE RCP ON SHEET AR-L22
	236	JANITOR CLOSET	EPX	EPX	PT	PT	PT	PT	APC	9′-0″	
	237	BUILDING MAINTENANCE	CARP	VB	PT	PT	PT	PT	APC	10′-0″	
	238	ELEVATOR MACHINE CLOSET	VCT	VB	PT	PT	PT	PT	EXP*	EXP*	*EXPOSED STRUCTURE
	S2	STAIR 2 AT OFFICE SECOND FLOOR		VB	PT / S/	F PT	PT	PT / S/	F EXP*	EXP*	*EXPOSED STRUCTURE
	S3	STAIR 3 AT OFFICE SECOND FLOOR		VB	PT	PT	PT	PT	EXP*	EXP*	*EXPOSED STRUCTURE
	300	ELEVATOR LOBBY	CS	VB	PT	PT	PT	PT	GYPB /EXP*	9′−0″ ∕EXP <del>*</del>	*SEE RCP ON SHEET AR-L23
	301	CORRIDOR	VCT	VB	PT	PT	PT	PT	GYPB	9′-0″	
	302	CORRIDOR	VCT	VB	PT	PT	PT	PT	GYPB	9′-0″	
	303	UNISEX TOILET ROOM	EPX	EPX	PT	PT	PT	PT	GYPB /APC*	8′-6″ /9′-0″*	*SEE RCP ON SHEET AR-L23
	304	ADMINISTRATION/COPY	VCT	VB	PT	РT	PT	PT	APC	10′-0″	
~	305	LIGHT RAIL DEPUTY DIRECTOR	CARP	VB	PT	PT	PT	PT	APC	10′-0″	
00	306	LIGHT RAIL DIRECTOR	CARP	VB	PT	PT	PT	PT	APC	10′-0″	
	307	INCIDENT ROOM	CARP	VB	PT	PT	PT	PT	GYPB /APC*	9'-0" /10'-0"*	*SEE RCP ON SHEET AR-L23
CONE	308	Ι.Τ.	CARP	VB	PT	PT	PT	PT	APC	9′-0″	
SE (	309	CONFERENCE	VCT	VB	PT / S/F	PT / S/F	PT	PT	APC /EXP*	9′−0″ ∕EXP <del>*</del>	*SEE RCP ON SHEET AR-L23
ICE	310	CORRIDOR	VCT	VB	PT	PT	PT	PT	EXP*	EXP*	*EXPOSED STRUCTURE
9 1 1 1 1 1 1 1	311	ELECTRICAL	EPX	EPX	PT	PT	PT	PT	EXP*	EXP*	*EXPOSED STRUCTURE
	312	COMMUNICATIONS ROOM	EPX	EPX	PT	ΡT	PT	PT	EXP*	EXP*	*EXPOSED STRUCTURE
	313	MECHANICAL	EPX	EPX	PT	ΡT	PT	ΡT	EXP*	EXP*	*EXPOSED STRUCTURE
	314	UNISEX TOILET ROOM	EPX	EPX	PT	ΡT	PT	PT	GYPB /APC*	8′-6″ /9′-0″*	*SEE RCP ON SHEET AR-L23
	315	UNISEX TOILET ROOM	EPX	EPX	PT	ΡT	PT	PT	APC	9′-0″	
	316	CORRIDOR	VCT	VB	PT	PT	PT	PT	GYPB	9′-0″	
	317	CORRIDOR	VCT	VB	PT	PT	PT	PT	GYPB	9′-0″	
	318	JANITOR CLOSET	EPX	EPX	PT	ΡT	PT	PT	APC	9′-0″	
	319	STORAGE	CARP	VB	PT	PT	PT	PT	APC	9′-0″	
	320	CLASSROOM	CARP	VB	PT	PT	PT	PT	GYPB /APC*	9 <sup>'</sup> -0 <sup>''</sup> /10 <sup>'</sup> -0 <sup>''</sup> *	*SEE RCP ON SHEET AR-L23
	321	TRAINING OFFICE	CARP	VB	PT	PT	PT	PT	APC	10′-0″	
USE	S2	STAIR 2 AT ROOF LEVEL		VB	PT	PT	PT	PT	EXP*	EXP*	*EXPOSED STRUCTURE
THO											
РЕ N											

PROFESSIONAL CERTIFICATION I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional architect under the laws of the State of Maryland

DRAFT: Information shown is based on 30 percent preliminary engineering plans and may be subject to further revision pending refinements to the plans during the completion of the design phase. Any reliance upon any of these plans is made with full understanding of its draft status.

DESGN	RJH	
DRAWN	RJH	
CHECK	DAK	
APPR		

License No. Expiration Date

	CONTRACT NO.		
PRELIMINARY ENGINEERING	T–1042–0220		
PURPLE LINE LIGHT RAIL	DRAWING NO.		
LYTTONSVILLE YARD FACILITY	AN-L04		
FINISH SCHEDULE	SHEET NO.		
DATE: DECEMBER 2013 SCALE:	NONE	<u>87</u> OF <u>443</u>	

c:\pwworking\r 11/13/2013

### EQUIPMENT LIST

ID. NO.	Item Description	Location
EXL1	Compactor, stationary, trash, 40 cy.	EXTERIOR
EXL2	Sanding System, Silo & Portable Carts	EXTERIOR
LC1	Compressor, screw, rotary, 40 HP	COMPRESSOR/LUBE ROOM
SL1	Forklift, electric, 3,000 lbs.	STORE ROOM
EP1	Reel, hose, compressed air	EMERGENCY PIT
TR1	Eye wash, Primary, Portable Station Kit	TRAIN WASH
TR2	Wash, high pressure, hot water, electric	TRAIN WASH
TR3	Washer, LRV, with reclaim	TRAIN WASH

### **KEYED NOTES**

### A. GENERAL NOTES

- FINAL SIZES AND LOCATIONS SHOULD BE VERIFIED WITH APPROVED MANUFACTURER SHOP 1. DRAWINGS.
- ALL EQUIPMENT WILL BE CONTRACTOR FURNISHED. 2.
- CONTRACTOR TO VERIFY AND COORDINATE ALL STRUCTURAL, MECHANICAL, ELECTRICAL, 3. AND PLUMBING REQUIREMENTS OF EQUIPMENT WITH MANUFACTURERS APPROVED SHOP DRAWINGS.
- EQUIPMENT PLAN DRAWINGS ARE PREPARED TO SCALE FOR BOTH EQUIPMENT SIZE AND 4. LOCATION. THE EQUIPMENT LAYOUT IS PROVIDED FOR GENERAL LOCATION OF EQUIPMENT UNLESS SPECIFICALLY LOCATED BY DIMENSIONS ON THE DRAWINGS. THE EQUIPMENT SHALL BE LOCATED NEAR THE LOCATION SHOWN ON DRAWINGS BUT IN THE MOST OPERATIONALLY EFFICIENT POSITION AND ORIENTATION.
- FINAL DESIGNER SHOULD VERIFY ALL EQUIPMENT MEETS APPLICABLE CODES AND STANDARDS. 5.
- REFER TO CIVIL DRAWINGS FOR EXTERIOR EQUIPMENT 6.

### B. EQUIPMENT NOTES

- 6" HIGH HOUSEKEEPING PAD FOR COMPRESSOR. COORDINATE SIZE WITH EQUIPMENT,  $\langle 1 \rangle$ REFERENCE ARCHITECTURAL AND STRUCTURAL DRAWINGS FOR DETAILS.
- WASHER, LRV, WITH RECLAIM ID. NO. TR3 IS BASED ON A SPECIFIC MANUFACTURER. CONTRACTOR  $\langle 2 \rangle$ IS RESPONSIBLE FOR PROVIDING LAYOUT OF EQUIPMENT IN WASH BAY THAT MAXIMIZES THE CLEANING CAPABILITY OF THE WASH SYSTEM. CONTRACTOR IS RESPONSIBLE FOR VERIFYING AND CHANGING ANY UNDER-SLAB OR EMBEDDED PIPING AND CONDUIT AS REQUIRED BY THE APPROVED WASHER MANUFACTURER. CONTRACTOR AND MANUFACTURER SHALL COORDINATE ALL INTERCONNECTING PIPING AND ELECTRICAL WORK BETWEEN PANELS, PUMPS, AND WASH EQUIPMENT IN THE WASH BAY.
- CONTRACTOR SHALL COORDINATE CONTROLS, WATER, AND HIGH PRESSURE PIPING BETWEEN  $\langle 3 \rangle$ EQUIPMENT ID. NO. TR2 AND REMOTE STATION.

**E Gannett** Fleming

VR&A

![](_page_87_Picture_14.jpeg)

Maryland

PROFESSIONAL CERTIFICATION	DRAFT: Information shown is based on 30 percent	DESGN	KAG
documents were prepared or approved by me, and that I	preliminary engineering plans and may be subject to further revision pending refinements to the plans during	DRAWN	KAG
engineer under the laws of the State of Maryland	the completion of the design phase. Any reliance upon any of these plans is made with full understanding	CHECK	TMD
License No. Expiration Date	of its draft status.	APPR	

# ABBREVIATIONS

LRV = LIGHT RAIL VEHICLE

	CONTRACT NO.
PRELIMINARY ENGINEERING	T-1042-0220
PURPLE LINE LIGHT RAIL	DRAWING NO
LYTTONSVILLE YARD FACILITY	AR-L90
EQUIPMENT NOTES AND EQUIPMENT LIST	SHEET NO.
DATE: DECEMBER 2013 SCALE: NTS	88 OF 443

![](_page_88_Picture_0.jpeg)

![](_page_88_Figure_1.jpeg)

![](_page_88_Figure_2.jpeg)

				S
PROFESSIONAL CERTIFICATION	DRAFT. Information shown is based on 30 percent	DESGN	KAG	Γ
I hereby certify that these documents were prepared or approved by me, and that I	<i>preliminary engineering plans and may be subject to</i> <i>further revision pending refinements to the plans during</i>	DRAWN	KAG	
engineer under the laws of the State of Maryland	<i>the completion of the design phase. Any reliance upon any of these plans is made with full understanding</i>	CHECK	TMD	
License No. Expiration Date	of its draft status.	APPR		

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![](_page_89_Figure_0.jpeg)

![](_page_89_Figure_1.jpeg)

![](_page_89_Figure_2.jpeg)

				SC
PROFESSIONAL CERTIFICATION	DRAFT: Information shown is based on 30 percent	DESGN	KAG	Γ
documents were prepared or approved by me, and that I	<i>preliminary engineering plans and may be subject to</i> <i>further revision pending refinements to the plans during</i>	DRAWN	KAG	
engineer under the laws of the State of Maryland	the completion of the design phase. Any reliance upon any of these plans is made with full understanding	TMD		
License No. Expiration Date	of its draft status.	APPR		

# NOTES:

1. FOR EQUIPMENT NOTES, REFER TO DRAWING AR-L90. 2. FOR EQUIPMENT LIST, REFER TO DRAWING AR-L90.

![](_page_89_Figure_6.jpeg)

![](_page_89_Figure_7.jpeg)

![](_page_89_Figure_8.jpeg)

SCALE: 1/8 =1 -0	
	CONTRACT NO.
FRELIVIINANT ENGINEERING	T-1042-0220
PURPLE LINE LIGHT RAIL	DRAWING NO.
LYTTONSVILLE YARD FACILITY	AR-L92
WASH BUILDING – EQUIPMENT PLAN	SHEET NO.
DATE: DECEMBER 2013 SCALE: 1/8" = 1'-0"	<u>90</u> of <u>443</u>

### **GENERAL STRUCTURAL NOTES:**

I.GENERAL

- I.1 GENERAL NOTES ARE TO BE READ IN CONJUNCTION WITH PROJECT TECHNICAL SPECIFICATIONS AND THE ISSUED DRAWINGS.
- 1.2 THE DESIGN DEPICTED IN THIS SET OF DRAWINGS REPERESENTS PRELIMINARY ENGINEERING EFFORTS AND ARE SUGGESTED STRUCTURAL DESIGN ONLY. FOUNDATION DESIGN, SIZING DETAILS AND COORDINATION WITH OTHER DISCIPLINES ARE THE RESPONSIBILITY OF THE DESIGN BUILDER. ALTERNATIVES TO THE DETAILS SHOWN MAY BE SUBJECT TO OWNER APPROVAL.
- I.3 DIMENSIONS OF EQUIPMENT OPENINGS, SUPPORTS, PADS, SLAB DEPRESSIONS, FOUNDATIONS & ANCHORAGE HAVE BEEN DETERMINED USING SPECIFIC MANUFACTURER'S EQUIPMENT.FINAL DIMENSIONS SHALL BE VERIFIED WITH THE ACTUAL EQUIPMENT PURCHASED.DIMENSIONS SHALL BE CHANGED ONLY WITH THE APPROVAL OF THE ENGINEER.
- I.4 SEE ARCHITECTURAL, MECHANICAL, PLUMBING & ELECTRICAL DRAWINGS FOR ADDITIONAL OPENINGS, SLEEVES, EMBEDDED ITEMS, UNDERGROUND PIPING & ELECTRICAL GROUNDING NOT SHOWN ON STRUCTURAL DRAWINGS.
- I.5 DESIGN BUILDER SHALL VERIFY ALL DIMENSIONS, ELEVATIONS AND EXISTING CONDITIONS PRIOR TO PROCEEDING WITH WORK. VARIATIONS BETWEEN DRAWINGS AND ACTUAL EXISTING CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO PROCEEDING WITH THE WORK.

II DESIGN CRITERIA

II.1 CODES AND STANDARDS

- 1. INTERNATIONAL BUILDING CODE (IBC) 2012 2. CODES AND STANDARDS LISTED IN THE BASIS OF DESIGN
- 3. STATE OF MARYLAND BUILDING CODE MARYLAND BUILDING PERFORMANCE STANDARDS (MBPS) WITH THE DEPARTMENT OF HOUSING AND COMMUNITY

DEVELOPMENT(DHCD) MODIFICATIONS.

- 3.1 INTERNATIONAL BUILDING CODE (IBC) 2012 EDITION. 5. MARYLAND TRANSIT ADMINISTRATION. 5.1 MTA RED/PURPLE LIGHT RAIL DESIGN CRITERIA. 5.2 DRAWING AND CADD STANDARDS FOR MICROSTATION V8 XM, REVISION 1.1 FEBRUARY 25, 2011. 5.3 OFFICE OF ENGINEERING AND CONSTRUCTION, QUALITY ASSURANCE PROGRAM PLAN, AUGUST 27, 2007. 5.4 REQUIREMENTS OF QUALITY MANAGEMENT PLAN FOR A/E DESIGN CONSULTANT, 5.5 FEBRUARY 7, 2006. 5.6 GENERAL PROVISIONS FOR CONSTRUCTION CONTRACTS, OCTOBER 2001.
- 5.7 SUPPLEMENTARY GENERAL PROVISIONS FOR CONSTRUCTION CONTRACTS, FEDERALLY FUNDED PROJECTS ONLY, JUNE 2001. 5.8 RED AND PURPLE LINE SUSTAINABLE DESIGN CHECKLIST.
- 6. COUNTY OF MONTGOMERY
- ICC'S APPLICABLE CODES
- 6.1 INTERNATIONAL BUILDING CODE (IBC) 2012 EDITION

II.2 DESIGN LOADS

II.2.1 LIVE LOADS REFER TO THE BASIS OF DESIGN FOR THE DESIGN LIVE LOADS REQUIREMENTS.

MARYLAND DEPARTMENT OF TRANSPORTATION

![](_page_90_Picture_24.jpeg)

MARYLAND TRANSIT ADMINISTRATION

![](_page_90_Picture_26.jpeg)

![](_page_90_Picture_27.jpeg)

![](_page_90_Picture_28.jpeg)

II.2.2 SEISMIC III. 5 STRUCTURAL STEEL SEISMIC DESIGN CATEGORY B 1. ALL WIDE FLANGE STRUCTURAL SHAPES SHALL CONFORM TO ASTM A992, GRADE 50. SITE CLASSIFICATION D 0.16 2. STRUCTURAL TUBING (HSS) TO CONFORM TO ASTM A500, GRADE B. Ss S1 0.05 0.17 3. STEEL PIPES TO CONFORM TO ASTM A53, GRADE B. Sds 0.08 Sd1 IMPORTANCE FACTOR (IE) 1.25 4. ANCHOR BOLTS SHALL CONFORM TO ASTM F1554 GRADE 36 UNLESS NOTED OTHERWISE AND SHALL BE ZINC COATED IN ACCORDANCE WITH THE REQUIREMENTS OF ASTM F1554. 5. ALL MISCELLANEOUS STEEL (PLATES, ANGLES, CHANNELS AND BARS) SHALL CONFORM TO II.2.4 SNOW LOAD ASTM A36. GROUND SNOW LOAD 20 PSF (MONTGOMERY COUNTY) 6. SHOP AND FIELD CONNECTIONS SHALL BE WELDED OR MADE WITH  $\frac{3}{4}$  DIAMETER MINIMUM, HIGH STRENGTH BOLTS IN ACCORDANCE WITH ASTM A325. THERMAL FACTOR 1.0 EXPOSURE FACTOR 1.2 7. ALL WELDING SHALL MEET THE REQUIREMENTS OF STRUCTURAL WELDING CODE AWS D1. 1-2010 USING ELECTRODES E70XX. IMPORTANCE FACTOR 1.1 SNOW DRIFT: WHERE APPLICABLE 8. ALL WELDS TO BE  $\frac{3}{16}$ " FILLET, MINIMUM 3" LONG UNLESS OTHERWISE REQUIRED. II. 2. 5 DEAD LOAD 9. ESTABLISH SPECIAL PROCEDURES FOR WELDS LARGER THAN  $\frac{3}{8}$ " TO PREVENT LAMELLAR TEARING. STRUCTURAL SYSTEM DEAD LOAD SHALL BE DETERMINED AS PER MTA DESIGN CRITERIA CHAPTER 11 TABLE 4 10. ALL ERECTED STEEL AND CONNECTIONS SHALL BE INSPECTED BY A QUALIFIED INSPECTOR. 11. ALL FULL PENETRATION WELDS SHALL BE TESTED BY ULTRASONIC METHOD. II. 2. 2 WIND LOAD 12. WASHERS AND NUTS SHALL CONFORM TO ASTM F436 AND A563 RESPECTIVELY. BASIC WIND SPEED (V) 110 MPH DESIGN WIND PRESSURE (MWFRS) 20 PSF 13. SEE SPECIFICATIONS FOR PAINTING. IMPORTANCE FACTOR (Iw) 1.15 EXPOSURE CATEGORY C 14. NO FIELD CUTTING OF STEEL MEMBERS SHALL BE PERMITTED WITHOUT PRIOR AUTORIZATION OF THE STRUCTURAL ENGINEER. III. STRUCTURAL MATERIALS 15. ALL STEEL PERMANENTLY EXPOSED TO WEATHER OR SOIL SHALL BE HOT DIP GALVANIZED (G90). 16. ALL STEEL ERECTION SHALL BE COMPLETED, INCLUDING ALL BRACING BEFORE OTHER TRADES CAN START THEIR WORK. III. 1 CEMENT TYPE I, II OR III CEMENT (PER PROJECT SPECIFICATIONS) SHALL BE USED III. 6 SOIL BEARING SEE SOIL REPORT. III. 2 CONCRETE 1. ALL CONCRETE CONSTRUCTION SHALL CONFORM TO ACI 318-11 III. 7 MASONRY 2. 28 - DAY CYLINDER COMPRESSIVE STRENGTH SHALL BE AS FOLLOWS: 1. CONCRETE MASONRY SHALL CONFORM TO ASTM C90 FOR LOAD-BEARING UNITS AND ASTM C129 FOR NON-LOAD BEARING UNITS. f' c = 4500 PSI CONCRETE FOR FOOTINGS, SLAB ON GRADE, GRADE BEAMS, FRAMED SLABS, WALLS, BEAMS ETC. 2. CONCRETE MASONRY UNITS SHALL BE MADE WITH LIGHTWEIGHT CONCRETE. COMPRESSIVE STRENGTH OF MASONRY ASSEMBLAGE f'm = 2000 PSI FOR LOAD f' c = 3500 PSI CONCRETE FOR TOPPING ON INTERIOR METAL DECK.BEARING AND f'm = 1500 PSI FOR NON-LOAD BEARING. 3. ALL MORTAR SHALL BE TYPE "S" CONFORMING TO ASTM C270 FOR ABOVE GRADE 3. ALL CONCRETE EXPOSED TO WEATHER SHALL BE AIR ENTRAINED WITH 6% +/- 1%. CONSTRUCTION. USE TYPE "M" FOR BELOW GRADE. 4. PROVIDE HORIZONTAL MASONRY REINFORCING AT 16" ON CENTER IN ALL III. 3 CONCRETE PROTECTION FOR REINFORCEMENT AND WELDED WIRE FABRIC(WWF) MASONRY WALLS UNO. REINFORCING BARS SHALL HAVE CONCRETE COVER AS FOLLOWS: 5. PROVIDE VERTICAL CONTROL JOINTS IN ALL MASONRY WALLS AT 30'-O" MAX. ON 1. FOOTINGS AND OTHER STRUCTURE POURED AGAINST EARTH: 3" (BOTTOM AND SIDE CENTER . REBARS), 2" (TOP REBARS) 6. ALL MORTAR JOINTS IN MASONRY WALLS SHALL BE FILLED 100% WITH MORTAR. 2. BEAMS AND COLUMNS:  $1'_{2}''$ 7. ALL MASONRY WALLS TO BE REINFORCED WITH #5 @ 24. IN ON CENTER, FULL 3. SLABS AND WALLS; 1" (NOT EXPOSED TO EARTH AND WEATHER) HEIGHT, GROUTED WITH PEA GRAVEL CONCRETE, GROUT SHALL CONFORM TO ASTM C476 WITH MINIMUM COMPRESSIVE STRENGTH OF 2000 PSI AT 28 DAYS.  $1^{1}_{2}$ " FOR REBARS #5 AND SMALLER (EXPOSED TO EARTH OR WEATHER) 8. DESIGN OF MASONRY IS BASED ON INSPECTED CONSTRUCTION. 4. 2" FOR REBARS #6 AND GREATER (EXPOSED TO EARTH OR WEATER) SALB ON GRADE: WWF TO BE PLACED AT MID-DEPTH, UNO. 9. DOVETAIL ANCHOR SHALL BE 2'-O'' MAX. ON CENTER WHERE MASONRY ABUTS FACES OF STRUCTURE. III. 4 REINFORCEMENT STEEL 10. PROVIDE DOVETAIL ANCHORS SLOTS INTO MASONRY AT 16" ON CENTER UNO. 1. ALL REINFORCING STEEL SHALL CONFORM TO ASTM A615, GRADE 60. 11. PROVIDE MASONRY TIES BETWEEN 4" THICK BRICK VENEER WALL AND MASONRY WALL OR STEEL STUD. SPACE TIES AT 16" ON CENTER VERTICALLY AND 24" 2. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A185. IN HORIZONTALLY. 3. REINFORCEMENT DETAILS SHALL CONFORM TO THE REQUIREMENTS OF ACI 318-11, ACI 12. SEE SPECIFICATIONS FOR BRICKS. DETAILING MANUAL - 2004 (SP-66) AND TECHNICAL SPECIFICATIONS SECTION 03210. ALL CONTINUOUS REINFORCING SHALL BE SPLICED AND STAGGERED, UNLESS NOTED OTHERWISE.

PROFESSIONAL CERTIFICATION	DRAFT: Information shown is based on 30 percent	DESGN	ВТ	
documents were prepared or approved by me, and that I	preliminary engineering plans and may be subject to further revision pending refinements to the plans during	DRAWN	JE	
  engineer under the laws of the State of Maryland	the completion of the design phase. Any reliance upon any of these plans is made with full understanding	CHECK	RG	
License No Expiration Date	of its draft status.	APPR		

DDELIMINADY ENGINEEDING	CONTRACT NO.
FRELIVIINANT ENGINEERING	T–1042–0220
PURPLE LINE LIGHT RAIL	DRAWING NO.
LYTTONSVILLE YARD FACILITY	ST–L01
GENERAL STRUCTURAL NOTES – SHEET 1 OF 2	SHEET NO.
DATE: DECEMBER 2013 SCALE: NTS	<u>91</u> of <u>443</u>

III.	8 FOUNDATION
1.	ALL FOOTINGS SHALL PROJECT AT LEAST 1'-O" INTO UNDISTURBED NATURAL SOIL OR THE COMPACTED CONTROLLED FILL HAVING A BEARING VALUE AT LEAST EQUAL TO THAT SPECIFIED IN THE SOIL REPORT. SEE SOIL REPORT FOR SUB GRADE PREPARATION.
2.	ALL DISTURBED EARTH UNDER FOOTINGS SHALL BE REPLACED WITH LEAN CONCRETE (f'c = 2000 psi).
3.	ALL BEARING TRATA SHALL BE ADEQUATELY DRAINED BEFORE FOUNDATION CONCRETE IS PLACED.
4.	NO EXCAVATION SHALL BE CLOSER THAN AT A SLOPE OF 2:1 (2 HORIZONTAL TO 1 VERTICAL) TO A FOOTING.
5.	DO NOT PLACE CONCRETE OVER FROZEN SOIL.
6.	THE REQUIRED SOIL BEARING CAPACITY SHALL BE CHECKED AND VERIFIED BY A SOIL CONSULTANT.
7.	BOTTOM OF ALL EXTERIOR FOOTINGS AND FOOTINGS IN UNHEATED SPACES SHALL BE LEAST 2'-6" BELOW FINISHED GRADE.
III.	9 SLABS ON GRADE
1.	ALL EXTERIOR SLABS ON GRADE SHALL BE AIR ENTRAINED WITH 6% + 1%. PROVIDE CONTROL JOINTS EACH WAY IN ALL EXTERIOR SLAB ON GRADE.
2.	SLABS ON GRADE SHALL BE LAID ON A LAYER OF 10 MIL MINIMUM POLYETHYLENE OVER A 6 IN. LAYER OF WASHED GRAVEL. THE VAPOR BARRIER SHALL MEET THE REQUIREMENTS OF MTA DESIGN CRITERIA SECTION 11. 5. 6 - I. SEE SOIL CONSULTANT'S RECOMMENDATION FOR SUB GRADE PREPARATION.
III.	10 BACKFILL
	MATERIALS USED FOR BACKFILL SHALL BE IN ACCORDANCE WITH CHAPTER 13 OF THE MTA DESIGN CRITERIA AND THE SOIL REPORT.
III.	11 HANDRAILS, GUARDRAILS AND LADDERS
1.	ALL GUARDRAILS AND HANDRAILS SHALL CONSIST OF STAINLESS STEEL CONFORMING TO ASTM A312 GRADE TP321.
2.	RAILINGS ON STATION PLATFORMS AND MEZZANINES SHALL BE DESIGNED FOR THE SIMULTANEOUS APPLICATION OF A HORIZONTAL LOAD OF 150 PLF AND A VERTCAL LOAD OF 100 PLF AT THE TOP.
3.	FOR HANDRAILS AND TOP RAILS OF GUARDS OTHER THAN ON STATION PLATFORM AND MEZZANINES, THE DESIGN SHALL BE BASED ON LOADING REQUIREMENTS AS PER IBC 2012,
4.	ALL LADDERS SHALL BE DESIGNED AT A MINIMUM TO SUSTAIN LOADS AS REQUIRED BY THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) STANDARS.
III.	12 LIGHT GAGE STEEL STUDS
	DESIGN AND CONSTRUCTION OF STEEL STUDS SHALL CONFORM TO AISC SPECIFICATIONS. ALL STEEL SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A653 AND HAVE A MINIMUM YIELD STRENGTH OF 33 KSI.
III.	13 STEEL GRATING
	FABRICATE ALL STEEL GRATING IN ACCORDANCE WITH THE NATIONAL ASSOCIATION OF ARCHITECTURAL METAL MANUFACTURERS, "METAL BAR GRATING MANUAL" NAAM BBG 531. ATTACH ALL GRATING TO STEEL MEMBERS WITH WELD-ON ANCHORS. BAND OUTSIDE EDGES OF GRATING AND ALL OPENINGS IN GRATING USING BARS OF THE SAME DEPTH AS THE BEARING BARS.

![](_page_91_Picture_2.jpeg)

![](_page_91_Picture_4.jpeg)

![](_page_91_Picture_5.jpeg)

![](_page_91_Picture_6.jpeg)

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I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland

License No. Expiration Date

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РРК	CHECK	DRAWN	DESGN
	RG	JE	BT

		CONTRACT NO.
PRELIMINARY ENG	NEERING	T–1042–0220
PURPLE LINE LIG	HT RAIL	DRAWING NO.
LYTTONSVILLE YARD	FACILITY	ST-L02
GENERAL STRUCTURAL NOTE	S – SHEFT 2 OF 2	SHEET NO.
DATE: DECEMBER 2013	SCALE: NTS	92 OF 443

![](_page_92_Figure_0.jpeg)

![](_page_93_Figure_0.jpeg)

![](_page_93_Picture_3.jpeg)

![](_page_93_Picture_4.jpeg)

![](_page_93_Picture_5.jpeg)

![](_page_93_Picture_6.jpeg)

PROFESSIONAL CERTIFICATION
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland

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	CONTRACT NO.
PRELIMINARY ENGINEERING	T–1042–0220
PURPLE LINE LIGHT RAIL	DRAWING NO
LYTTONSVILLE YARD FACILITY	51-L04
RETAINING WALL GENERAL PLAN & ELEVATION	SHEET NO.
DATE: DECEMBER 2013 SCALE: 1/16" =1'-0"	<u>94</u> of <u>443</u>

![](_page_94_Figure_0.jpeg)

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	CONTRACT NO.
PRELIMINARY ENGINEERING	T–1042–0220
PURPLE LINE LIGHT RAIL	DRAWING NO.
	ST LOG
LYTTONSVILLE YARD FACILITY	31-L00
RETAINING WALL ELEVATION	SHEET NO.
DATE: DECEMBER 2013 SCALE: 1/16" =1'-0"	<u>96</u> of <u>443</u>

![](_page_96_Figure_0.jpeg)

PROFESSIONAL CERTIFICATION       I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland       DRAFT: Information shown is based on 30 percent preliminary engineering plans and may be subject to further revision pending refinements to the plans during of its draft status.       JE         I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland       JE       JE         I License No.       Expiration Date       Expiration Date       Image: Certify that these documents is made with full understanding of its draft status.       Terminary engineering plans and may be subject to further revision pending refinements to the plans during of its draft status.       Terminary engineering plans and may be subject to further revision pending refinements to the plans during of its draft status.	DRAFT: Information shown is based on 30 percent preliminary engineering plans and may be subject to further revision pending refinements to the plans during the completion of the design phase. Any reliance upon any of these plans is made with full understanding of its draft status.
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	PROFESSIONAL CERTIFICATION	DRAFT: Information shown is based on 30 percent	DESGN	BT
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- -	engineer under the laws of the State of Maryland	the completion of the design phase. Any reliance upon any of these plans is made with full understanding	CHECK	RG
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![](_page_98_Picture_3.jpeg)

![](_page_98_Picture_4.jpeg)

![](_page_98_Picture_5.jpeg)

![](_page_98_Picture_6.jpeg)

-	PROFESSIONAL CERTIFICATION I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland License No. Expiration Date	DRAFT: Information shown is based on 30 percent preliminary engineering plans and may be subject to further revision pending refinements to the plans during the completion of the design phase. Any reliance upon any of these plans is made with full understanding of its draft status.	APPR CHECK DRAWN DESGN	BT JE RG
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<u>99</u> of <u>443</u>

SCALE: 1/8"=1'-0"

DATE: DECEMBER 2013

![](_page_99_Figure_0.jpeg)

NC.	PROFESSIONAL CERTIFICATION I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland	DRAFT: Information shown is based on 30 percent preliminary engineering plans and may be subject to further revision pending refinements to the plans during the completion of the design phase. Any reliance upon any of these plans is made with full understanding	DRAFT: Information shown is based on 30 percent preliminary engineering plans and may be subject to further revision pending refinements to the plans during the completion of the design phase. Any reliance upon any of these plans is made with full understanding of its draft status.	BT JE RG
	License No. Expiration Date	of its draft status.	APPR	

	CONTRACT NO.		
PRELIMINARY ENGINEERING	T–1042–0220		
PURPLE LINE LIGHT RAIL	DRAWING NO.		
LYTTONSVILLE YARD FACILITY	ST–L10		
FRAMING AND SLAB PLAN – SHEET 1 OF 2	SHEET NO.		
DATE: DECEMBER 2013 SCALE: 1/16" =1'-0"	<u>100</u> OF <u>443</u>		

![](_page_100_Figure_0.jpeg)

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NOTE:					
1-VERIFY	ALL	DIMENSIONS	WITH	ARCHITECTURAL	DRAWINGS.

![](_page_102_Figure_7.jpeg)

----- OPEN WEB STEEL JOIST

	CONTRACT NO.
PRELIMINARY ENGINEERING	T–1042–0220
PURPLE LINE LIGHT RAIL	DRAWING NO.
LYTTONSVILLE YARD FACILITY	ST–L13
OFFICE ROOF FRAMING PLAN	SHEET NO.
DATE: DECEMBER 2013 SCALE: $1/16'' = 1' - 0''$	<u>103</u> OF <u>443</u>

LEGEND:

![](_page_103_Figure_0.jpeg)

PROFESSIONAL CERTIFICATION I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland	DRAFT: Information shown is based on 30 percent preliminary engineering plans and may be subject to further revision pending refinements to the plans during the completion of the design phase. Any reliance upon any of these plans is made with full understanding of its draft status.	PPR CHECK DRAWN DESGN	BT JE RG
License No. Expiration Date		4	

![](_page_104_Figure_0.jpeg)

![](_page_104_Picture_5.jpeg)

![](_page_104_Picture_6.jpeg)

![](_page_104_Picture_7.jpeg)

![](_page_104_Picture_8.jpeg)

### STAIR S4 FRAMING PLAN

SCALE: 1/4'' = 1'-0''4 ′

SCALE: 1/4"=1'-0"

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PROFESSIONAL CERTIFICATION	DRAFT: Information shown is based on 30 percent	DESG	ΒT
documents were prepared or approved by me, and that I	preliminary engineering plans and may be subject to further revision pending refinements to the plans during	DRAWN	JE
engineer under the laws of the State of Maryland	<i>the completion of the design phase. Any reliance upon any of these plans is made with full understanding</i>	CHECK	RG
License No. Expiration Date	of its draft status.	APPR	

	CONTRACT NO.
PRELIMINARY ENGINEERING	T–1042–0220
PURPLE LINE LIGHT RAIL	DRAWING NO.
	ST–L15
STAIR SA FRAMING PLAN	SHEET NO.
DATE: DECEMBER 2013 SCALE: $1/4^{"} = 1^{'} - 0^{"}$	<u>105</u> of <u>443</u>

![](_page_104_Figure_14.jpeg)

NOTES: 1. VERIFY ALL DIMENSIONS WITH ARCHITECTURAL
AND TRACK DRAWINGS.

![](_page_105_Figure_0.jpeg)

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![](_page_106_Figure_0.jpeg)

License No. Expiration Date

![](_page_106_Figure_3.jpeg)

PRELIMINARY ENGINEERING PURPLE LINE LIGHT RAIL	contract no. <b>T–1042–0220</b> drawing no.
LYTTONSVILLE YARD FACILITY	ST-L17
LONGITUDINAL SECTION ALONG COLUMN "C"	SHEET NO.
DATE: DECEMBER 2013 SCALE: 1/16" =1'-0"	_107_ OF _443_

![](_page_107_Figure_0.jpeg)

	PROFESSIONAL CERTIFICATION	DRAFT: Information shown is based on 30 percent	DESGN	BT
	documents were prepared or approved by me, and that I	<i>further revision pending refinements to the plans during</i>	DRAWN	JE
am eng the	engineer under the laws of the State of Maryland	<i>the completion of the design phase. Any reliance upon any of these plans is made with full understanding</i>	CHECK	RG
	License No. Expiration Date	of its draft status.	APPR	

	CONTRACT NO.
PRELIMINARY ENGINEERING	T–1042–0220
PURPLE LINE LIGHT RAIL	DRAWING NO.
LYTTONSVILLE YARD FACILITY	ST–L18
CROSS SECTION OF PARKING GARAGE	SHEET NO.
DATE: DECEMBER 2013 SCALE: $1/8" = 1' - 0"$	108 OF 443


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<b>PROFESSIONAL CERTIFICATION</b> I hereby certify that these documents were prepared or	DRAFT: Information shown is based on 30 percent preliminary engineering plans and may be subject to	AWN DESGN	BT	
approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland	further revision pending refinements to the plans during the completion of the design phase. Any reliance upon any of these plans is made with full understanding	CHECK DR	RG	
License No. Expiration Date	OJ IIS APAJI STATUS.	APPR		

	CONTRACT NO.
PRELIMINART ENGINEERING	T–1042–0220
PURPLE LINE LIGHT RAIL	DRAWING NO.
LYTTONSVILLE YARD FACILITY	ST-L19
CROSS SECTION OF PARKING GARAGE	SHEET NO.
DATE: DECEMBER 2013 SCALE: 1/8" = 1'-0"	<u>109</u> OF <u>443</u>











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# TYPICAL THICKENED SLAB AT CMU PARTITION

SCALE: 3/4"=1'-0

	CONTRACT NO.
FRELIMINANT ENGINEERING	T–1042–0220
PURPLE LINE LIGHT RAIL	DRAWING NO.
LYTTONSVILLE YARD FACILITY	ST–L20
SECTIONS AND DETAILS	SHEET NO.
DATE: DECEMBER 2013 SCALE: AS SHOWN	_ <u>110</u> OF _443_





PROFESSIONAL CERTIFICATION	DRAFT. Information shown is based on 30 percent	DESGN	BT
I hereby certify that these documents were prepared or approved by me, and that I	<i>preliminary engineering plans and may be subject to</i> <i>further revision pending refinements to the plans during</i>	DRAWN [	JE
engineer under the laws of the State of Maryland	the completion of the design phase. Any reliance upon any of these plans is made with full understanding	CHECK	RG
License No. Expiration Date	of its draft status.	APPR	





	CONTRACT NO.
PRELIMINARY ENGINEERING	T-1042-0220
PURPLE LINE LIGHT RAIL	DRAWING NO.
LYTTONSVILLE YARD FACILITY	ST–L22
SECTIONS AND DETAILS	SHEET NO.
DATE: DECEMBER 2013 SCALE: NONE	<u>112</u> OF <u>443</u>



PROFESSIONAL CERTIFICATION	DRAFT: Information shown is based on 30 percent	DESGN	BT
documents were prepared or approved by me, and that I am a duly licensed professional	preliminary engineering plans and may be subject to further revision pending refinements to the plans during	DRAWN	JE
engineer under the laws of the State of Maryland	the completion of the design phase. Any reliance upon any of these plans is made with full understanding	CHECK	RG
License No. Expiration Date	of its draft status.	APPR	

SCALE: AS SHOWN

T–1042–0220
DRAWING NO.
ST–L23
SHEET NO.
113 OF 443



Maryland

VR&A

ATHAVALE, LYSTAD & ASSOCIATES INC.

Consulting Engineers

Rockville, Marvlan



PROFESSIONAL CERTIFICATION
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland

License No. Expiration Date

DRAFT: Information shown is based on 30 percent preliminary engineering plans and may be subject to further revision pending refinements to the plans during the completion of the design phase. Any reliance upon any of these plans is made with full understanding of its draft status.

DESGN	BT	
DRAWN	JE	
CHECK	RG	
APPR		

		CONTRACT NO.
PRELIMINART ENGI	NEERING	T–1042–0220
PURPLE LINE LIGH	HT RAIL	DRAWING NO.
LYTTONSVILLE YARD	FACILITY	ST–L24
TYPICAL DETA	ILS	SHEET NO.
DATE: DECEMBER 2013	SCALE: NONE	<u>114</u> OF <u>443</u>







PROFESSIONAL CERTIFICATION I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland License No. Expiration Date DRAFT: Information shown is based on 30 percent preliminary engineering plans and may be subject to further revision pending refinements to the plans during of its draft status. DRAFT: Information shown is based on 30 percent preliminary engineering plans and may be subject to of the State of Maryland License No. Expiration Date	CATION se d or at 1 sssional of DRAFT: Information shown is based on 30 percent preliminary engineering plans and may be subject to further revision pending refinements to the plans during the completion of the design phase. Any reliance upon any of these plans is made with full understanding of its draft status.	BT JE RG
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	CONTRACT NO.	
PRELIMINARY ENGINE	T–1042–0220	
	DRAWING NO.	
	ST_1 25	
LYTTONSVILLE YARD F	01 220	
TYPICAL DETAILS	SHEET NO.	
DATE: DECEMBER 2013	SCALE: NONE	<u>_115</u> OF <u>_443</u>

pw:\\00 - Cur 11/15/2013





### SECTION PERPENDICULAR TO SLAB SPAN







NC.	PROFESSIONAL CERTIFICATION		DRAFT: Information shown is based on 30 percent	DESGN	BT
	documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland	<i>preliminary engineering plans and further revision pending refinements</i>	preliminary engineering plans and may be subject to further revision pending refinements to the plans during	DRAWN	JE
			the completion of the design phase. Any reliance upon any of these plans is made with full understanding	CHECK	RG
	License No. Expiration Date		of its draft status.	APPR	

		CONTRACT NO.
PRELIMINARY ENGI	T–1042–0220	
PURPLE LINE LIGH	HT RAIL	DRAWING NO.
LYTTONSVILLE YARD	FACILITY	ST-L26
TYPICAL DETA	ILS	SHEET NO.
DATE: DECEMBER 2013	SCALE: NONE	<u>116</u> OF <u>443</u>









FULL WIDTH COLUMN STIFFENER PLATES TOP AND BOTTOM, EACH SIDE TO MATCH BEAM FLANGE THICKNESS

B	TYPICAL JOIST BEAM CONNECTION	
ST-L27	SCALE: NTS	
	REF: SI-L12	



	PROFESSIONAL CERTIFICATION
-	I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland
	License No. Expiration Date

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DESGN	ΒT	
DRAWN	JE	
CHECK	RG	
РРК		

	CONTRACT NO.	
PRELIMINARY ENGINE	T–1042–0220	
PURPLE LINE LIGHT RAIL		DRAWING NO.
LYTTONSVILLE YARD F.	51-LZ7	
TYPICAL DETAILS	SHEET NO.	
DATE: DECEMBER 2013	SCALE: NONE	<u>117</u> OF <u>443</u>

ABBREVIATION	6		SYMBOLS				
BREV ABBREVIATION	IB INVERTED BUCKET TRAP	$\boxtimes \boxtimes$	SUPPLY AIR DUCT (UP,DOWN)		BOUNDARY LINE	SYMBOL	DESCRIPTIC
AIR CONDITIONING	INV INVERT ELEVATION		RETURN/OUTDOOR/RELIEF AIR DUCT (UP,DOWN)	SAN CRW	SANITARY/WASTE PIPE CHEMICAL RESISTANT WASTE PIPE		INDICATES DETAIL DESIGNATION
F ABOVE FINISHED FLOOR	KVA KILOVOLT AMPERES		EXHAUST AIR DUCT (UP,DOWN)	D	A/C CONDENSATE AND EQUIPMENT DRAIN PIPE		
U AIR HANDLING UNIT JM ALUMINUM	KW KILOWATT		FIRE DAMPER WITH ACCESS DOOR	CRV			- DRAWING WHERE DETAIL IS DRA
D AIR PRESSURE DROP	L LENGTH			SSW	STORM WATER FIFE SECONDARY (OVERFLOW) STORM WATER PIPE		- INDICATES DIRECTION OF CUTT
CH ARCHITECT, ARCHITECTURAL	LB(S) POUND(S)		SMOKE DAMPER WITH ACCESS DOOR	FND SANPD	FOUNDATION DRAIN PIPE SANITARY PUMPED DISCHARGE PIPE		- INDICATES SECTION OR ELEVAT
T ABOVEGROUND STORAGE TANK	LF LINEAR FEET			SWPD	STORM WATER PUMPED DISCHARGE PIPE DOMESTIC COLD WATER PIPE		
C AUTOMATIC TEMPERATURE CONTROL M ATMOSPHERE	L.P. LOW PRESSURE LVG LEAVING				DOMESTIC HOT WATER PIPE (TEMP. IF INDICATED) DOMESTIC HOT WATER RECIRCULATING PIPE	MX	<ul> <li>DRAWING NUMBER WHERE ELEY IS TAKEN OR DRAWN</li> </ul>
	LWB LEAVING WET BULB				NON-POTABLE WATER PIPE		
			FLEXIBLE CONNECTION (DUCT)				- INDICATES CUT LINE
	MECH MECHANICAL		SOUND ATTENUATOR	ROR	REVERSE OSMOSIS WATER REFER PIPE	S	
V BACK WATER VALVE P BRAKE HORSEPOWER	MBH THOUSAND BTU'S PER HOUR MFR MANUFACTURER		SOUND LINED DUCT (DIMENSIONS SHOWN ARE AIR-SIDE)	DIS	DEIONIZED WATER SUPPLY PIPE DEIONIZED WATER RETURN PIPE	X	SANITARY RISER DESIGNATION
DG BUILDING P BOTTOM OF PIPE	MIN MINIMUM MO MOTOR OPERATOR		TRANSITION ROUND TO RECTANGULAR	——————————————————————————————————————	COMPRESSED AIR PIPE NATURAL GAS PIPE	Ŵ	
	MTD MOUNTED	24x12 24/12	DUCT (SIZE IN INCHES; FIRST FIGURE IS SIDE SHOWN)	V	VACUUM PIPE NITROGEN GAS PIPE	X	DOMESTIC WATER RISER DESIG
P BACKFLOW PREVENTER	NAT NATURAL		DUCT OFFSET UP IN DIRECTION OF ARROW	N2	NITROUS OXIDE GAS PIPE		
DEGREES CELSIUS	NC NOISE CRITERIA N.C. NORMALLY CLOSED		DUCT OFFSET DOWN IN DIRECTION OF ARROW	SG	SPECIALTY GAS PIPE	PCH-X	EQUIPMENT DESIGNATION
V CONSTANT AIR VOLUME CEILING DIFFUSER	NIC NOT IN CONTRACT N.O. NORMALLY OPEN			DP	DRY-PIPE FIRE SUPPRESSION PIPE		- NUMERICAL DESIGNATION
M CUBIC FEET PER MINUTE	NO. NUMBER		SUPPLY AIR TERMINAL UNIT	——————————————————————————————————————	CHILLED WATER SUPPLY PIPE		- EQUIPMENT TYPE DESIGNATION
CLEANOUT	OA OUTDOOR AIR		SUPPLY AIR TERMINAL LINIT WITH REHEAT COIL	CHR CHS(G)	CHILLED WATER RETURN PIPE CHILLED WATER (GLYCOL) SUPPLY PIPE	tO	PLUMBING FIXTURE DESIGNATION
2 CARBON DIOXIDE MP COMPRESSED	OC ON CENTER OED OPEN END DUCT			CHR(G) CS	CHILLED WATER (GLYCOL) RETURN PIPE CONDENSER WATER SUPPLY PIPE		
NC CONCRETE NN CONNECTION. CONNECT	OS&Y OUTSIDE SCREW AND YOKE		FAN POWERED AIR TERMINAL UNIT WITH HEATING COIL	CR HS	CONDENSER WATER RETURN PIPE		
	PD PRESSURE DROP	╞───┤──	DUCT MOUNTED REHEAT COIL	HR			
FT CUBIC FEET	PG PROPYLENE GLYCOL		SUPPLY AIR DEVICE	PHS	PRIMART REATING WATER SUPPLY PIPE		SINGLE-LINE
H CABINET UNIT HEATER CONNECT TO EXISTING	PH PHASE PLBG PLUMBING			HPS HPR	HIGH PRESSURE STEAM PIPE (_PSIG) HIGH PRESSURE CONDENSATE RETURN PIPE		PLAN VIEW
DOMESTIC COLD WATER PIPE	PPH POUNDS PER HOUR (STEAM) PPM PARTS PER MILLION		KETUKN AIK DEVICE	MPS MPR	MEDIUM PRESSURE STEAM PIPE (_PSIG) MEDIUM PRESSURE CONDENSATE RETURN PIPF	_	
	PRESS. PRESSURE		EXHAUST AIR DEVICE	LPS LPB	LOW PRESSURE STEAM PIPE (_PSIG)		
A DECIBEL (REFERENCE "A" SCALE)	PRV PRESSURE REDUCING VALVE PSI(G) POUNDS PER SQUARE INCH (GAGE)		LINEAR SLOT DIFFUSER WITH PLENUM				+
L DOUBLE P DIGITAL CONTROL PANEL	PUH PROPELLER UNIT HEATER PVC POLYVINYL CHLORIDE			PCR	STEAM VAPOR VENT PIPE		
C DIRECT DIGITAL CONTROL			FABRICATED PLENUM		REFRIGERANT RELIEF PIPE REFRIGERANT SUCTION PIPE		
J DRAINAGE FIXTURE UNITS		<u> </u>	DUCT OR WALL MOUNTED AIR DEVICE		REFRIGERANT LIQUID PIPE HOT GAS REFRIGERANT PIPE		12x12 (OR 12"Ø)┐
F DIFFUSER	R RADIUS RA RETURNAIR			FOS FOR	FUEL OIL SUPPLY PIPE FUEL OIL RETURN PIPE		<u> </u>
DOWN DOMESTIC WATER	RAD RADIATED RD ROOF DRAIN	(-[;+) 1.→	FINNED TUBE RADIATION OR RADIANT HEATING PANEL	ERS ERB	ENERGY RECOVERY SUPPLY PIPE		
G DRAWING	REQ'D REQUIRED	-	SUPPLY AIR FLOW DIRECTION	DTS			
	RHP RADIANT HEATING PANEL	Ø			FLOW DIRECTION ARROW		
B ENTERING AIR TEMPERATURE B ENTERING DRY BULB	RL RAINLEADER RLF RELIEF AIR	у Ç	CUBIC FEET PER MINUTE CENTER LINE	j	PIPE DOWN		
F EFFICIENCY ETHYLENE GLYCOL	RPM REVOLUTIONS PER MINUTE RPZ REDUCED PRESSURE ZONE	Ф	FLAT OVAL		PIPE/DUCT CAP UNION		
	RX REMOVE EXISTING			——————————————————————————————————————	FLANGED CONNECTION PIPE ANCHOR		
EV ELEVATION OR ELEVATOR	SA SUPPLY AIR		FLOOR DRAIN ROOF DRAIN/SECONDARY (OVERFLOW) ROOF DRAIN	— <u> </u>			
P EXTERNAL STATIC PRESSURE	SF SQUARE FEET SH SENSIBLE HEAT	Ō	FLOOR SINK	— Ď—	ECCENTRIC REDUCER		
C ET CETERA B ENTERING WET BULB	SL SOUND LINING SP STATIC PRESSURE			<del></del>  XX	FLEXIBLE CONNECTION (PIPING)		
T ENTERING WATER TEMPERATURE	SPEC SPECIFICATION/PROJECT MANUAL			—\ —→ ►	SHUTOFF VALVE (IN HORIZONTAL / IN VERTICAL)		
P EXPOSED	SRD SECONDARY (OVERFLOW) ROOF DRAIN	O CO	CLEANOUT IN VERTICAL		MANUAL BALANCING VALVE		
DEGREES FAHRENHEIT	SRL SECONDARY (OVERFLOW) RAIN LEADER S/S STAINLESS STEEL		DOMESTIC WATER BACKFLOW PREVENTER		AUTOMATIC BALANCING VALVE		<b>—</b>
F FLOAT & THERMOSTATIC TRAP J FAN COIL UNIT	STL STEEL STRUCT STRUCTURAL	& ∩sa	BACK WATER VALVE (ARROW INDICATES DIRECTION OF FLOW)		CHECK VALVE (ARROW INDICATES DIRECTION OF FLOW)		
VA FLOOR CONTROL VALVE ASSEMBLY FLOOR DRAIN	TEMP TEMPFRATURF		HOSE BIBB				
C FIRE DEPARTMENT CONNECTION	TH TOTAL HEAT		NON-FREEZE CONCEALED OUTLET WALL HYDRANT	<u> </u>			
FIRE DEPARTMENT VALVE	THE THERMODYNAMIC TRAP	ТДин					
C FIRE HOSE CABINET FLOOR	TSP TOTAL STATIC PRESSURE TYP TYPICAL		SPACE TEMPERATURE SENSOR OR THERMOSTAT	¥	PRESSURE GAGE WITH ISOLATION VALVE		
B FLAT ON BOTTOM		B	SPACE HUMIDITY SENSOR OR HUMIDISTAT	- - - -			Ť
FINS PER INCH	UON UNLESS OTHERWISE NOTED	©	SPACE CARBON DIOXIDE SENSOR		FLOW METER FITTING COMBINATION BALANCING VALVE & FLOW METER FITTING		
S FEET PER MINUTE	USI UNDERGROUND STORAGE TANK		DUCT OR PIPE MOUNTED TEMPERATURE SENSOR/TRANSMITTER	- P T			
FLOOR SINK HD FEET OF HEAD PRESSURE	V VOLTS VA VOLT AMPERES		DUCT MOUNTED HUMIDITY SENSOR/TRANSMITTER DUCT MOUNTED CARBON DIOXIDE SENSOR/TRANSMITTER	<u>↓</u>			
R FINNED TUBE RADIATION	VAV VARIABLE AIR VOLUME			 			
GAGE	VFC VARIABLE FREQUENCY CONTROLLER	(	SUCT MUSIATED SWORE DETECTOR	—_ <u>_</u>	STRAINER WITH VALVE		
L GALLON LV GALVANIZED	VP VENT PIPE VTR VENT THRU ROOF		FREEZESTAT	Š	STEAM TRAP		
H GALLONS PER HOUR M GALLONS PER MINUTE	W WIDTH				FIRE SUPPRESSION INDICATING VALVE W/TAMPER SWITCH		
	WE WET BULB	└ <u>└</u>	CONTROL DAMPER		FIRE DEPARTMENT VALVE		
	WG WATER GAGE				ALARM CHECK VALVE		1
KIZ HURIZONTAL HORSEPOWER	w/ WITH W/O WITHOUT		STATIC PRESSURE SENSOR/AIR FLOW STATION	——Ķ——	DRY PIPE VALVE		
HIGH PRESSURE AC HEATING, VENTILATING & AIR CONDITIONING	WPD WATER PRESSURE DROP				DRY PIPE VALVE W/ACCELERATOR		
			FAN INLET AIR FLOW MEASURING STATION	$\longrightarrow$			RECTAN
HERTZ				φ	DELUGE VALVE		
				<u>&gt;</u>	FIRE SUPPRESSION FLOW SWITCH		
		· 行· □ □ □	FLOW SWITCH		FIRE SUPPRESSION PRESSURE SWITCH		
		<del></del>			FIRE SUPPRESSION DOUBLE CHECK BACKFLOW PREVENTER		
			DIFFERENTIAL PRESSURE SWITCH	$\rightarrow$	FIRE DEPARTMENT SIAMESE WALL CONNECTION		
				م م	FIRE DEPARTMENT SIAMESE EREESTANDING CONNECTION		
			DIFFERENTIAL PRESSURE TRANSMITTER				
		↓ ↓ ↓			WATER MOTOR GONG		
		· · · · · · · · · · · · · · · · · · ·		• •		1	
				L_J	MAGNAHELIC PRESSURE GAGE		

MARYLAND TRANSIT ADMINISTRATION Maryland

**E Gannett** Fleming WR&A



	PROFESSIONAL CERTIFICATION	DRAFT. Information shown is based on 30 percent	DESGN	VH
	I hereby certify that these documents were prepared or approved by me, and that I	<i>preliminary engineering plans and may be subject to</i> <i>further revision pending refinements to the plans during</i>	DRAWN	GK
IC.	engineer under the laws of the State of Maryland	the completion of the design phase. Any reliance upon any of these plans is made with full understanding	CHECK	VH
	License No. Expiration Date	of its draft status.	APPR	



GENERAL NOTES AND ABBREVIATIONS

DATE: DECEMBER 2013

SCALE: NONE

SHEET NO.

118 OF 443





PROFESSIONAL CERTIFICATION	DRAFT. Information shown is based on 30 percent	DESGN	VH
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional	<i>preliminary engineering plans and may be subject to</i> <i>further revision pending refinements to the plans during</i>	DRAWN	GK
engineer under the laws of the State of Maryland	the completion of the design phase. Any reliance upon any of these plans is made with full understanding	CHECK	VH
License No. Expiration Date	of its draft status.	APPR	

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. <b>DI</b> Cale	NG FLOOR PLAN E: <sup>1</sup> / <sub>8</sub> "=1'-0"		8	, · · · · · · · · · · · · · · · · · · ·	
	PROFESSIONAL CERTIFICATION I hereby certify that these documents were prepared or approved by me, and that I	DRAFT: Information shown is based on 30 percent preliminary engineering plans and may be subject to further revision pending refinements to the plans during	DRAWN DESGN	VH GK	
C.	am a duly licensed professional engineer under the laws of the State of Maryland	<i>the completion of the design phase. Any reliance upon any of these plans is made with full understanding of its draft status.</i>	PR CHECK	VH	
	License No. Expiration Date		API		







PRELIMINARY ENGINEERING	CONTRACT NO. <b>T-1042-0220</b>
IVITONSVILLE VARD EACILITY	drawing no. ME–L12
WASH BLDG FLOOR AND ROOF PLANS – HVAC         DATE: DECEMBER 2013    SCALE: 1/8" = 1'-0"	SHEET NO. <u>121</u> of <u>443</u>

16′



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с.	PROFESSIONAL CERTIFICATION I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional architect under the laws of	DRAFT: Information shown is based on 30 percent preliminary engineering plans and may be subject to further revision pending refinements to the plans during the completion of the design phase. Any reliance upon	CK DRAWN DESGN	VH GK	
	the State of Maryland	any of these plans is made with full understanding of its draft status.	APPR CHE		

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PROFESSIONAL CERTIFICATION I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland License No. Expiration Date	DRAFT: Information shown is based on 30 percent preliminary engineering plans and may be subject to further revision pending refinements to the plans during the completion of the design phase. Any reliance upon any of these plans is made with full understanding of its draft status.	APPR CHECK DRAWN DESGN CHECK DRAWN DESGN HA

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AIR HANDLI	NG UNIT SCI	HEDULE																																							
			FAN SEC	TION												COOLING	COIL							HOT W	ATER H	EATING (	COIL							FILTERS				MAX			
ID NO.	LOCATION	TYPE	MAX	OA	SUPPLY	r RPM	ESP IN	I. BHP	MHP	V-PH-HZ	TOTAL	SENSIBLE	MAX FACE	MIN	MAX FIN PER	EAT E		SIDE AT LAT	MAX	SIDE	TOTAL	MAX FACE	MIN	MAX FIN PER	A EAT	AIR SIDE	MAX	EWT L	WATER S			MAX FACE	ASHR MER	AE THICK	PRESS INITAL	URE DRO	ACCESS	UNIT WEIGHT	BASIS OF DESIGN	REMARKS	
	1ST FLOOR				FAN								VEL. PPM	ROWS	IN.		F DI	BI   WBI	IN. WC	REFRIGERAN		VEL. PPM	ROWS	IN.	۰F	•F (	(IN. WC)	•F	•F	∍РМ   WF  (FT.	wc)	FPM	RATIN	NG Y	(IN. W	C) (IN. W	C)				
AHU – 1	MECH ROOM		ຊັບ 7600	930	AIR FOIL	_ 2817	2.0	12.2	15	460-3-60	244.1	201.5	452	4	10.2	77.6 6.	3.3 5	3.4 52.2	0.4	R410A	118.1	507	1	6.7	61	75	0.073	140 1	20 1	1.8 0.4	. (6	) 402	\$ &	15 2	-	2.2	SIDE	_	TRANE 17	(1)(2)(3)(4)(5)(6)(7)	
AHU-2	1ST FLOOR MECH ROOM	VERTICAL M DRAWTHR	L <sub>N</sub> 1000	160	_	2526	1.5	1.94	3	460-3-60	34.4	26.3	343	4	7.8	78.4 64	4.7 54	4.4 53.1	0.28	R410A	16.8	400	1	6.7	60	75	0.045	140 1	20	1.7 0.3	34 6	) 300	8 &	15 2	-	2.2	SIDE	-	TRANE 3	123456	
AHU-3	2ND FLOOR MECH ROON	VERTICAL	ຊັບ 8500	1500	AIR FOIL	_ 2488	2.0	12.9	15	460-3-60	280.1	231.0	506	4	8.67	78.4 6	3.4 5	3.6 52.0	0.52	R410A	147.5	567	1	7.7	59	75	0.99	140 1	20 1	4.8 0.0	61 6	) 450	8 &	15 2	_	2.2	SIDE	-	TRANE 17	1234567	
1 INTERNA	L FACE & E	BYPASS DA	MPERS F	R COIL	2 PROV	DE MIXIN	G BOX WIT	TH ANGLE	D FILTE		COMPAT	IBLE WITH	VFD		G COIL PE	RFORMANC	E IS BA	ASED ON	MIN OA	5 DX CC	OLING CC			E MERV 8	PREFIL	TER, ME	ERV 15 1	2" CART	RIDGE F	INAL FILTE	२	7 FOUF	R SEPAR	ATE DISTRI	BUTION C	CIRCUITS I	N COOLING	COIL			

		BASIS OF DE	SIGN	AGA RATED	AGA RATED	WATER	MAX.	BURNER	MOTOR	PRIMARY	MAX. FUEL		
DESIGNATION	LOCATION			INPUT	OUPUT	ТЕМР	OPERATING	CHARACTE	RISTICS	FUEL	PRESSURE		REMARKS
		MANUFACTURER	MODEL	(MBH)	(MBH)	RANGE	PRESSURE	AMPS(MAX/RUN)	V/PH/HZ		(IN.)		
B-1 E	BOILER ROOM	FULTON	PHW 300	300	270	120°F-140°F	60 PSIG	4.2/0.6	120/1/60	MAT. GAS	11		
B-2 E	BOILER ROOM	FULTON	PHW 300	300	270	120°F-140°F	60 PSIG	4.2/0.6	120/1/60	MAT. GAS	11		
B-3 E	BOILER ROOM	FULTON	PHW 300	300	270	120°F-140°F	60 PSIG	4.2/0.6	120/1/60	MAT. GAS	11	(1)	

PUMP SCHEDULE										
						МАХ		MOTOF	2	
DESIGNATION	DESCRIPTION	LOCATION	MANUFACTURER	MODEL	GPM	HEAD (FT.)	RPM	HP	V/PH/HZ	COMMENTS
P-1	END SUCTION	BOILER ROOM	BELL & GOSSETT	1510-			_	_	460/3/60	1
P-2	END SUCTION	BOILER ROOM	BELL & GOSSETT	1510-			_		460/3/60	1
1 MOTOR COMPA	ATIBLE WITH VFD									

									TERM	INAL UN	NT SCHD	ULE								
												REHEAT CO	DIL				SOUND	DATA		
ID NO.	SYSTEM	TYPE	ACTUATOR	MAX CFM	MIN CFM	SP IN. WG	SIZE IN.	CFM	TOTAL MBH	EAT ?F	LAT F	MAX APD IN. WG	EWT F	MAX GPM	MIN ROWS	MAX WPD FT	DISCHARGE NC	RAD NC	MANUFACTURER	REMARKS
VAV-1		VAV	DDC			1.0							140						TITUS DESV-	
VAV-2		VAV	DDC			1.0							140						TITUS DESV-	
VAV-3		VAV	DDC			1.0							140						TITUS DESV-	
VAV-4		VAV	DDC			1.0							140						TITUS DESV-	
VAV-5		VAV	DDC			1.0							140						TITUS DESV-	
VAV-6		VAV	DDC			1.0							140						TITUS DESV-	
VAV-7		VAV	DDC			1.0							140						TITUS DESV-	
VAV-8		VAV	DDC			1.0							140						TITUS DESV-	
VAV-9		VAV	DDC			1.0							140						TITUS DESV-	
VAV-10		VAV	DDC			1.0							140						TITUS DESV-	
VAV-11		VAV	DDC			1.0							140						TITUS DESV-	
VAV-12		VAV	DDC			1.0							140						TITUS DESV-	
VAV-13		VAV	DDC			1.0							140						TITUS DESV-	
VAV-14		VAV	DDC			1.0							140						TITUS DESV-	
VAV-15		VAV	DDC			1.0							140						TITUS DESV-	
VAV-16		VAV	DDC			1.0							140						TITUS DESV-	

**MARYLAND TRANSIT ADMINISTRATION** Maryland





DESIGNATION	SERVICE	MOUNTING	FACE SIZE (IN.)	NECK SIZE (IN.)	MATERIAL	PATTERN	CFM RANGE	MAX. NC	MAX. APD (IN. WG)	BASIS OF DESIGN	COMMENTS
CD-1	SUPPLY	LAY-IN	24x24	6" DIA	STEEL	DIFFUSER, 4-WAY, ADJUSTABLE	1-230	30	0.1	TITUS TMSA	1
CD-2	SUPPLY	LAY-IN	24×24	8" DIA	STEEL	DIFFUSER, 4-WAY, ADJUSTABLE	231-340	30	0.1	TITUS TMSA	1
CD-3	SUPPLY	LAY-IN	24×24	10" DIA	STEEL	DIFFUSER, 4-WAY, ADJUSTABLE	341-430	30	0.1	TITUS TMSA	1
CD-4	SUPPLY	LAY-IN	24x24	12" DIA	STEEL	DIFFUSER, 4-WAY, ADJUSTABLE	431-620	30	0.1	TITUS TMSA	1
CR-1	RETURN	LAY-IN	24x24	10x6	ALUMINUM	1/2" x 1/2" EGGCRATE GRID, FIXED	1-270	30	0.1	TITUS 50F	1
CR-2	RETURN	LAY-IN	24×24	10x10	ALUMINUM	1/2" x 1/2" EGGCRATE GRID, FIXED	271-470	30	0.1	TITUS 50F	1
CR-3	RETURN	LAY-IN	24×24	12x12	ALUMINUM	1/2" x 1/2" EGGCRATE GRID, FIXED	471-700	30	0.1	TITUS 50F	1
CR-4	RETURN	LAY-IN	24×24	14x14	ALUMINUM	1/2" x 1/2" EGGCRATE GRID, FIXED	701-970	30	0.1	TITUS 50F	1
CR-5	RETURN	LAY-IN	24×24	16x16	ALUMINUM	1/2" x 1/2" EGGCRATE GRID, FIXED	971-1,290	30	0.1	TITUS 50F	1
CR-6	RETURN	LAY-IN	24x24	18×18	ALUMINUM	1/2" x 1/2" EGGCRATE GRID, FIXED	1,291-1,650	30	0.1	TITUS 50F	1
EG-1	EXHAUST	SURFACE	12X8	10x6	ALUMINUM	1/2" x 1/2" EGGCRATE GRID, FIXED	1-270	30	0.1	TITUS 50F	1
EG-2	EXHAUST	SURFACE	12X12	10×10	ALUMINUM	1/2" x 1/2" EGGCRATE GRID, FIXED	271-470	30	0.1	TITUS 50F	1
EG-3	EXHAUST	SURFACE	14X14	12x12	ALUMINUM	1/2" x 1/2" EGGCRATE GRID, FIXED	471-700	30	0.1	TITUS 50F	1
EG-4	EXHAUST	SURFACE	16×16	14×14	ALUMINUM	1/2" x 1/2" EGGCRATE GRID, FIXED	701–970	30	0.1	TITUS 50F	1
TG-1	TRANSFER	SURFACE	14x14	12x12	ALUMINUM	1/2" x 1/2" EGGCRATE GRID, FIXED	291-440	_	0.04	TITUS 50F	1
SR-1	SUPPLY	SURFACE	12x8	10x6	STEEL	BAR GRILLE, DOUBLE DEFLECTION, ADJ.	1-290	30	0.1	TITUS 300RS-HD	1, 2
WG-1	TRANSFER	SURFACE	20×12	18×10	ALUMINUM	BAR GRILLE, O-DEG FIXED	291-600	15	0.04	TITUS 60FL-HD	1
WG-2	RETURN	SURFACE	36×12	18×18	STEEL	BAR GRILLE, O-DEG FIXED	1,281-1,370	20	0.1	TITUS 350RL-HD	1

approved by me, and that I am a duly licensed professional engineer under the laws of		
the State of Maryland any of these plans is made with full understanding	GK	К ——
License No. Expiration Date		

	CONTRACT NO.
PRELIMINARY ENGINEERING	T–1042–0220
PURPLE LINE LIGHT RAIL	DRAWING NO.
LYTTONSVILLE YARD FACILITY	IVIE-L80
MECHANICAL SCHEDULES AND DETAILS	SHEET NO.
DATE: DECEMBER 2013 SCALE: NONE	<u>124</u> OF <u>443</u>

						FAN	SCHE	DUL	E					
		OEM.			MOT	TOR			MIN	WHEEL		DRIVE	METHOD OF	
D	SERVING			HP	MAX BHP	VOLTS	PHASE		PAN DIA	TYPE	CLASS	TYPE	CONTROL	MANUFACTURER / MODEL
LR MAINTENAI STORAGE	CE _	-	-	-	-	-	-	-	-	-	-	-	-	-
-2 CLEANING SUF STORAGE	PLY	-	-	-	-	-	-	-	-	-	-	-	-	-
-3 BULK FLUID STORAGE	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-4 UNISEX TOIL	т -	-	-	-	-	-	-	-	-	-	-	-	-	-
-5 UNISEX TOIL	т -	-	-	-	-	-	-	-	-	-	-	-	-	-
-6 ELEVATOR	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-7 ELECT SERVI ROOM	E _	-	-	-	-	-	-	-	-	-	-	-	-	-
-8 EMERGENC ELECTRICAL R	ОМ -	-	-	-	-	-	-	-	-	_	-	-	-	-
-9 COMPRESSOR	RM -	-	-	-	-	-	-	-	-	-	-	-	-	-
10 UNISEX	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11 ELECTRICAL	м -	-	-	-	-	-	-	-	-	-	-	-	-	-
12 NOT USED	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13 NOT USED	-	-	-	-	-	-	-	-	_	-	-	-	-	-
-7ELECT SERVI ROOM-8EMERGENC ELECTRICAL R-9COMPRESSOR10UNISEX11ELECTRICAL I12NOT USED13NOT USED	E	- - - - - -	- - - -	- - - -	- - - - -	- - - -	- - - -	- - - -	- - - - -	- - - - -	- - - - - -	- - - - -	- - - - -	

	UNIT HEATER SCHEDULE									
DESIG	LOCATION	MOUNTING	KW	BTU / HR	VOLTS	PHASE	CFM	EAT (°F)	LAT (°F)	MANUFACTURER / MODEL
UH-1	EMERGENCY ELECTRICAL	CEILING HUNG	-	-	-	-	-	-	-	-
UH-2	ELECTRICAL SERVICE	CEILING HUNG	-	-	-	-	-	-	-	-
UH-3	WATER SERVICE	CEILING HUNG	-	-	-	-	-	-	-	-
UH-4	UNISEX	CEILING HUNG	-	_	-	-	-	-	-	-
UH-5	UNISEX	CEILING HUNG	-	-	-	-	-	-	-	-
UH-5A	FIRE PROTECTION	CEILING HUNG	-	-	-	-	-	-	-	-
UH-6	BULK FLUID STOAGE	CEILING HUNG	-	-	-	-	-	-	-	-
UH-6A	FIRE PROTECTION	CEILING HUNG	-	-	-	-	-	-	-	-
UH-7A	ELECTRI CAL	CEILING HUNG	-	-	-	-	-	-	-	-
UH-7B	CLEANING SUPPLY STORAGE	CEILING HUNG	-	-	-	-	-	-	-	-
UH-8	LR MAINTENANCE STORAGE	CEILING HUNG	-	-	-	-	-	-	-	-
UH-9	UNISEX	CEILING HUNG	-	-	-	-	-	-	-	-
UH-10	COMPRESSOR	CEILING HUNG	-	-	-	-	-	-	-	-
UH-11	WASH BUILDING	CEILING HUNG	-	-	-	-	-	-	-	-
UH-12	WASH BUILDING	CEILING HUNG	-	-	-	-	-	-	-	-
UH-13	WASH BUILDING	CEILING HUNG	-	-	-	-	-	-	-	-
UH-14	NOT USED	-	-	-	-	-	-	-	-	-
UH-15	NOT USED	-	-	-	-	-	-	-	-	-
UH-16	NOT USED	-				-				







			D	UCTLE		T SYSTEM	AIR COM	DITIONI	NG UN	IT S	CHEDU	LE		
DESIG	NATION					COOLING	HEATING		ELECTR	CAL CH	IARACTERISTIC	S		
INDOOR	OUTDOOR	LOCATION	AREA SERVED	CFM	UNII TYPE			INI	DOOR		OL	JTDOOR		MANUFACTURER / MODEL
UNIT	UNIT							MIN AMPACITY	VOLTS / Ø	MFS	MIN AMPACITY	VOLTS / Ø	MFS	
AC-1	ON ROOF	PLANNING OFFICE	-	-	-	-	-	-	-	-	-	-	-	-
AC-2	ON ROOF	CLEANING BREAK ROOM	-	-	-	-	-	-	-	-	-	-	-	-
AC-3		NOT USED	-	-	-	-	-	-	-	-	-	-	-	-
AC-4	ON ROOF	MOW FOREMAN OFFICE	-	-	-	-	-	-	-	-	-	-	-	-
AC-5	ON ROOF	OFFICE	-	-	-	-	-	-	-	-	-	-	-	-
AC-6	ON ROOF	OPERATION CONTROL	-	-	-	-	-	-	-	-	-	-	-	-
AC-7	ON ROOF	EQUIPMENT	-	-	-	-	-	-	-	-	-	-	-	-
AC-8	ON ROOF	EQUIPMENT	-	-	-	-	-	-	-	-	-	-	-	-
AC-9	ON ROOF	QUIET ROOM	-	-	-	-	-	-	-	-	-	-	-	-
AC-10	ON ROOF	QUIET ROOM	-	-	-	-	-	-	_	-	-	-	-	-
AC-11	ON ROOF	IT ROOM												

NOTE: PROVIDE DOUBLE SUCTION REFRIGERANT PIPING RISERS AND TRAPS AS RECOMMENDED BY MANUFACTURER. QUANTITY AND SIZES OF REFRIGERANT PIPING SHALL BE AS RECOMMENDED BY MANUFACTURER.

PROFESSIONAL CERTIFICATION
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland
License No. Expiration Date

DRAFT: Information shown is based on 30 percent preliminary engineering plans and may be subject to further revision pending refinements to the plans during the completion of the design phase. Any reliance upon any of these plans is made with full understanding of its draft status.

DESGN	VH	
DRAWN	GK	
CHECK	VH	
APPR		

PRELIMINARY ENGINEERING PURPLE LINE LIGHT RAIL	contract no. <b>T–1042–0220</b> drawing no.
LYTTONSVILLE YARD FACILITY	ME–L81
MECHANICAL SCHEDULES AND DETAILS	SHEET NO.
DATE: DECEMBER 2013 SCALE: NONE	<u>125</u> of <u>443</u>

TAVI 1     THEN IC. ACCESS DUMMS TO SUPPLY DAY ONE AND THE 25- HOUSESSIDEL FELLINGS. REFER TO ANGULEE UNA. (DRAWS) GREATER AND THE DOTS. DOTS.     DESCRIPTION       TAVI 1     THE ACCESS DUMMS TO SUPPLY DAY ONE AND THE TURN. (DRAWS) GREATER AND THE DOTS.     DESCRIPTION       TAVI 2     THE ACCESS DUMMS TO SUPPLY DAY ONE AND THE TURN. (DRAWS) GREATER AND THE DOTS.     DESCRIPTION       TAVI 3     THE ACCESS DUMMS TO SUPPLY DAY ONE AND THE TURN. (DRAWS) GREATER AND THE ACCESS DUMMS TO SUPPLY DAY. BASE AND THE TO THE MILLING. ACCESS DUMMS TO SUPPLY DAY. BASE AND THE TO THE MILLING AND THE ACCESS DUMMS TO SUPPLY DAY. BASE AND THE TO THE MILLING ACCESS DUMMS TO SUPPLY DAY. BASE AND THE TO THE MILLING ACCESS DUMMS TO SUPPLY DAY. BASE AND THE TO THE MILLING ACCESS DUMMS TO SUPPLY DAY. BASE AND THE TO THE MILLING ACCESS DUMMS TO SUPPLY DAY. BASE AND THE TO THE MILLING ACCESS DUMMS TO SUPPLY DAY. BASE AND THE TO THE MILLING ACCESS DUMMS TO SUPPLY DAY. BASE AND THE TO THE MILLING ACCESS DUMMS TO SUPPLY DAY. BASE AND THE TO THE MILLING ACCESS DUMMS TO SUPPLY DAY. BASE AND THE TURN TO MILLING ACCESS DUMMS TO SUPPLY DAY. BASE AND THE MILLING ACCESS DUMMS TO SUPPLY DAY. BASE AND THE TURN DAY. AND THE TURN TO ACCESS DUMMS TO SUPPLY DAY. MILLING ACCESS DUMMS TO SUPPLY DAY. AND THE TURN TO MILLING ACCESS DUMMS TO SUPPLY DAY. AND THE TURN TO MILLING ACCESS DUMMS TO SUPPLY DAY. AND THE TURN TO MILLING ACCESS DUMMS TO SUPPLY DAY. AND THE TURN TO MILLING ACCESS DUMMS TO SUPPLY DAY. AND THE TURN TO MILLING ACCESS DUMMS TO SUPPLY DAY. AND THE TURN TO SUPPLY DAY. MILLING ACCESS DUMMS TO SUPPLY DAY. ANO	ABBREVIATION AAV ABAN AC ACCU AD ADR AFF AHU AMD APPROX ARCH BAL BDD BE BFP BHP	DESCRIPTION AUTOMATIC AIR VENT ABANDON AIR CONDITIONING AIR COOLED CONDENSING UNIT ACCESS DOOR OR AREA DRAIN AREA DRAIN ABOVE FINISHED FLOOR AIR HANDLING UNIT AIR MEASURING DEVICE/STATION APPROXIMATE ARCHITECTURAL BALANCE BACK DRAFT DAMPER BOTTOM ELEVATION
OUALITY, DIMENSIONAL LIMITATIONS, AND PERFORMANCE CHARACTERISTICS, PRODUCTS OF OTHER MANUFACTURERS MAY BE OFFERED FOR APPROVAL, HOWEVER, THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING THE SAME LEVEL OF QUALITY, DIMENSIONAL LIMITATIONS AND PERFORMANCE CHARACTERISTICS, AS WELL AS WARRANTY CERTIFICATION, TO THE FULL SATISFACTION OF THE OWNER.	BLDG BLW BV BVF CCA CAS CD CFM CFT CI CL CLG CO CONC CONN CONT CW CX DB DEG DF DIA DN DS DWG DWH ELEC ELEV ETR EXP EXT EXP EXT EWC EWH EXT EXT EWC EWH EWT EX FF FCO FD FDT FF FF FCO FD FDT FF FF FCO FD FDT FF FF FCO FD FDT FF FF FCO FD FDT FF FF FCO FD FDT FF FF FF FCO FD FDT FF FF FF FF FF FF FF FF FF FF FF FF FF	BACK FLOW PREVENTER BRAKE HORSE POWER BUILDING BELOW BALANCING & SHUT OFF VALVE BALANCING & SHUT OFF VALVE W FLOW METER FITTING COMMON COMPRESSED AIR COMPRESSED AIR STATION CONDENSATE DRAIN CUBIC FEET PER MINUTE CUBIC FEET CAST IRON CENTER LINE CEILING CLEAN OUR CONCETE CONNECTION COLD WATER (DOMESTIC) OR CHASSIS WASH CONNECT TO EXISTING DRY BULB DEGREE DRINKING FOUNTAIN DIAMETER DOWN DOWNSPOUT DRAWING DOMESTIC WATER HEATER ELECTRICAL ELEVATION EXISTING TO REMAIN EXPANSION EXPANSION TANK OR EXTERIOR ELECTRICAL WATER COLER ELECTRICAL WATER COLER ELECTRICAL WATER TEMPERATURE EXISTING FAHRENHEIT FLOOR CLEAN OUT FLOOR DRAIN FOUNDATION DRAIN TILE FINISHED FLOOR FIRE HOSE CABINET FLEXIBLE FLOOR FEET PER MINUTE FEET PER MINUTE FEET PER MINUTE
FOR ALL THE PLUMBING WORK TO THE OWNER. FILEX PIPE FLEX PIPE FLEX PIPE FLEX PIPE FLEX PIPE FLEX PIPE PIPE INCREASER PIPE REDUCER DRAWING KEY NOTE ROOM NUMBER BALANCING VALVE/CIRCUIT SETTER	FPS FTOR' FSP FS FSK GA GAL GAL GAL GAL GAL GPH GPM GWH	FEET PER SECOND FEET FIRE STAND PIPE FLOW SWITCH FLOOR SINK GAS GAUGE GALLON GALVANIZED GALLONS PER HOUR GALLONS PER MINUTE GAS WATER HEATER

CO 9, Inc.	PROFESSIONAL CERTIFICATION I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland	DRAFT: Information show preliminary engineering pla further revision pending refin the completion of the design any of these plans is made of its draf
	License No. Expiration Date	

ц	CHECK	DRAWN	DESGN
	VH	GK	VH

### ABBREVIATIONS (CONTINUED)

ABBREVIATION	DESCRIPTION
H	HEIGHT
HB	HOSE BIBB
HDR	HEADER
HED	HOSE END DRAIN
HP	HORSE POWER
HR	HOT WATER RETURN
HS	HOT WATER SUPPLY
HW	HOT WATER 140°(DOMESTIC)
HWMV	HOT WATER MIXING VALVE
HWM OR HWC	HOT WATER RECIRCULATING
HZ	HERTZ
IMC	INSULATED METAL CASING
IN OR "	INCH
INV	INVERT ELEVATION
L	LENGTH
MAV	MANUAL AIR VENT
MH	MANHOLE
NC	NORMALLY CLOSED
NIC	NOT IN CONTRACT
NO	NORMALLY OPEN
NO. OR #	NUMBER
NTS	NOT TO SCALE
OC	ON CENTER
OWP	OIL/WATER PUMP
PD	PRESSURE DROP
Ph	Phase
PRES	pressure
PSI	pounds per square Inch
PWW	pressure wash water supply
RD	ROOF DRAIN
RECT	RECTANGULAR
REQD	REQUIRED
RL	RAIN LEADER
RX	REMOVE EXISTING
RPBFP	REDUCED PRESSURE BACK FLOW PREVENTE
SAN	SANITARY
SCHD	SCHEDULE
SD	STORM DRAIN
SF	SQUARE FEET
SHK	SHOCK ABSORBER
SP	STATIC PRESSURE
SPD	SUMP PUMP DISCHARGE
SPKR	SPRINKLER
SQFT	SQUARE FEET
SS	STAINLESS STEEL
SRD	SECONDARY (OVERFLOW) ROOF DRAIN
SRL	SECONDARY (OVERFLOW) RAIN LEADER
SSW	SECONDARY (OVERFLOW) STORM WATER
SW	STORM WATER
TPP	TRAP PRIMER PANEL
TP OR TPL	TRAP PRIMING LINE
TRANS	TRANSITION
TYP	TYPICAL
TS	TRANSFER SWITCH
TW	TEMPERED WATER 110°F(DOMESTIC)
USF	UNDERGROUND SANDFILTER
V	VOLT
VC OR VCO	CLEAN OUT IN VERTICAL PIPE
VTR	VENT THROUGH ROOF
W	WIDTH
W/	WITH
WB	WET BULB
WCO	WALL CLEAN OUT
WH	WATER HYDRANT
WOB	WASTE OIL BOILER

	CONTRACT NO.
PRELIMINARY ENGINEERING	T–1042–0220
PURPLE LINE LIGHT RAIL	DRAWING NO
LYTTONSVILLE YARD FACILITY	PL-L01
GENERAL NOTES AND ABBREVIATIONS	SHEET NO.
DATE: DECEMBER 2013 SCALE: NONE	<u>126</u> OF <u>443</u>









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1	PROFESSIONAL CERTIFICATION I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland	DRAFT: Information shown is based on 30 percent preliminary engineering plans and may be subject to further revision pending refinements to the plans during the completion of the design phase. Any reliance upon	HECK DRAWN DESGN	VH GK VH	
the Li	License No. Expiration Date	any of these plans is made with full understanding of its draft status.	APPR		_





the State of Maryland       any of these plans is made with full understanding       E       III         Image: State of Maryland       Image: State of Maryland       Image: State of Maryland       Image: State of Maryland         Image: State of Maryland       Image: State of Maryland       Image: State of Maryland       Image: State of Maryland         Image: State of Maryland       Image: State of Maryland       Image: State of Maryland       Image: State of Maryland         Image: State of Maryland       Image: State of Maryland       Image: State of Maryland       Image: State of Maryland         Image: State of Maryland       Image: State of Maryland       Image: State of Maryland       Image: State of Maryland         Image: State of Maryland       Image: State of Maryland       Image: State of Maryland       Image: State of Maryland         Image: State of Maryland       Image: State of Maryland       Image: State of Maryland       Image: State of Maryland         Image: State of Maryland       Image: State of Maryland       Image: State of Maryland       Image: State of Maryland         Image: State of Maryland       Image: State of Maryland       Image: State of Maryland       Image: State of Maryland         Image: State of Maryland       Image: State of Maryland       Image: State of Maryland       Image: State of Maryland         Image: State of Maryland       Image: State of Maryland <th>2.</th> <th>PROFESSIONAL CERTIFICATION I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland</th> <th>DRAFT: Information shown is based on 30 percent preliminary engineering plans and may be subject to further revision pending refinements to the plans during the completion of the design phase. Any reliance upon any of these plans is made with full understanding of its draft status.</th> <th>PPR CHECK DRAWN DESGN</th> <th>VH GK VH</th>	2.	PROFESSIONAL CERTIFICATION I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland	DRAFT: Information shown is based on 30 percent preliminary engineering plans and may be subject to further revision pending refinements to the plans during the completion of the design phase. Any reliance upon any of these plans is made with full understanding of its draft status.	PPR CHECK DRAWN DESGN	VH GK VH
License No. Expiration Date		License No. Expiration Date		4	

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	am a duly licensed professional engineer under the laws of the State of Maryland	the completion of the design phase. Any reliance upon any of these plans is made with full understanding	CHECK DI	VH
	License No. Expiration Date	of its draft status.	APPR	

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License No.	Expiration	Date

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PROFESSIONAL CERTIFICATION	DRAFT: Information shown is based on 30 percent	DESGN	VH
documents were prepared or approved by me, and that I	preliminary engineering plans and may be subject to further revision pending refinements to the plans during	DRAWN	GK
engineer under the laws of the State of Maryland	the completion of the design phase. Any reliance upon any of these plans is made with full understanding	CHECK	VH
License No. Expiration Date	of its draft status.	APPR	



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engineer under the laws of the State of Maryland	<i>the completion of the design phase. Any reliance upon any of these plans is made with full understanding</i>	CHECK	VH	
License No. Expiration Date	of its draft status.	APPR		



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**TOILET ROOMS 109 & 111** SCALE:  ${}^{3}_{8}{}^{''} = 1' - 0''$ \PL-L50∕ REF: YARD LEVEL







VH GK VH

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# TOILET ROOM 227

PL-L50 SCALE:  $\frac{3}{8}'' = 1' - 0''$ REF: FIRST FLOOR PLAN

	CONTRACT NO.
PRELIMINARY ENGINEERING	T–1042–0220
PURPLE LINE LIGHT RAIL	
	DRAWING NO.
LYTTONSVILLE YARD FACILITY	PL-L50
ENLARGED TOILET ROOM PLANS - PLUMBING	SHEET NO.
DATE: DECEMBER 2013 SCALE: AS SHOWN	<u>134</u> of <u>443</u>











	PLUMBING FIXTURE SCHEDULE									
P#	DESCRIPTION	CW	HW	SAN	VENT	TRAP	REMARKS			
P-1	WATER CLOSET	1"	-	4"	2"	INT.				
P-1A	WATER CLOSET	1"	-	4"	2"	INT.	SEE NOTE No. 6			
P-2	URINAL	3/4"	-	2"	1 1/2"	INT.	SEE NOTE No. 5			
P-2A	URINAL	3/4"	-	2"	1 1/2"	INT.	SEE NOTE No. 6			
P-3	LAVATORY	1/2"	1/2"	1 1/2"	1 1/2"	'P'	SEE NOTE No. 6			
P-3A	LAVATORY	1/2"	1/2"	1 1/2"	1 1/2"	'P'	SEE NOTE No. 4			
P-4	MOP BASIN	3/4"	3/4"	3"	1 1/2"	'P'				
P-5	WATER COOLER	1/2"	-	1 1/2"	1 1/2"	'P'	SEE NOTE No. 7			
P-6	SHOWER	1/2"	1/2"	2"	2"	'P'				
P-7	EMERGENCY EYE WASH/SHOWER	1 1/4"	-	1 1/2"	1 1/2"	'P'				
P-8	COUNTERTOP SINK	1/2"	1/2"	1 1/2"	-	'P'				
HB	HOSE BIBB	1/2"	-	-	-	-				
2" FD	FLOOR DRAIN (2")	-	-	2"	-	'P'				
3" FD	FLOOR DRAIN (3")	-	-	3"	-	'P'				
4" FD	FLOOR DRAIN (4")	-	-	4"	-	'P'				

NOTES:

1. FIXTURE PROVIDED UNDER ANOTHER DIVISION. UNDER THIS DIVISION, PROVIDE ROUGH-IN AND FINAL CONNECTION.

2. HANDICAPPED, RIM OF FIXTURE SHALL BE 17" ABOVE FINISHED FLOOR

3. COUNTERTOP MOUNTED

4. HANDICAPPED, COUNTERTOP MOUNTED

5. WALL HUNG

6. HANDICAPPED, WALL HUNG

7. HANDICAPPED, WATER COOLER SPOUT SHALL BE 36" ABOVE FINISHED FLOOR

8. PROVIDE CAST IRON TRAP W/ CLEANOUT

PROFESSIONAL CERTIFICATION	DRAFT: Information shown is based on 30 percent	DESGN	VH
documents were prepared or approved by me, and that I	<i>preliminary engineering plans and may be subject to</i> <i>further revision pending refinements to the plans during</i>	DRAWN	GK
engineer under the laws of the State of Maryland	the completion of the design phase. Any reliance upon any of these plans is made with full understanding	CHECK	VH
License No. Expiration Date	of its draft status.	APPR	

	CONTRACT NO.
PRELIMINARY ENGINEERING	T–1042–0220
PURPLE LINE LIGHT RAIL	DRAWING NO.
LYTTONSVILLE YARD FACILITY	PL-L80
PLUMBING SCHEDULE	SHEET NO.
DATE: DECEMBER 2013 SCALE: NONE	136 OF 443

# **ABBREVIATIONS**

A	AMPERES	HPS	HIGH PRESSURE SODIUM	SIC	SYMMETRICAL INTERRUPTING
AC AFF AFG AHU	ABOVE FINISHED FLOOR ABOVE FINISHED GRADE AIR HANDLING UNIT	HV HZ	HEATER HIGH VOLTAGE HERTZ	SOPN SPPS SS	SPACE OR POLE NUMBER SOUND POWERED PHONE SYSTEM STAINLESS STEEL
A I C AL	AMPERES INTERRUPTING CAPACITY, (SYM, RMS AMPS) ALUMINUM	I CCB I DS I MC	INSULATED CASE CIRCUIT BREAKER INTRUSION DETECTION SYSTEM INTERMEDIATE METALLIC CONDUIT	SS ST STA	SAFETY SWITCH Shunt Trip Station Shielded twisted pair
ANNUN AS ATC	ANNUNCIATOR AMMETER SWITCH AUTOMATIC TEMPERATURE CONTROL	JB	JUNCTION BOX	STPS	SHIELDED TWISTED PAIR OVER ALL SHIELDED TWISTED PAIR OVER ALL SHIELD
ATC ATS AUTO AUX AWG	AUTOMATIC TEMPERATORE CONTROL AUTOMATIC TRANSFER SWITCH AUTOMATIC AUXILIARY AMERICAN WIRE GAUGE	KAIC KV KVA	THOUSAND AMPERES INTERRUPTING CAPACITY KILOVOLT KILOVOLT AMPERE	STR STT S/N SW	STARTER SHIELDED TWISTED TRIPLE SOLID NEUTRAL SWITCH
BCSD BFC BFI BFG BLDG	BARE COPPER SOFT DRAWN BELOW FINISHED CEILING BLOWN FUSE INDICATOR BELOW FINISHED GRADE BUILDING	LTG LO LP LT∕FMC	LIGHTING LOCKOUT LIGHTING AND APPLIANCE PANEL LIQUID TIGHT/FLEXIBLE METAL	SWBD SWGR SYM SYS	SWITCHBOARD SWITCHGEAR SYMMETRICAL SYSTEM
BKR C CB	BREAKER CONDUIT CIRCUIT BREAKER	LS LSH	LIMIT SWITCH LEVEL SWITCH HIGH	TC TDD TDE	TIME CLOCK TIME DELAY DE-ENERGIZED (OFF) TIME DELAY ENERGIZED (ON)
СС1 СКТ СОМВ	POWER/CONTROL/INSTRUMENTATION CABLE RUN NUMBER AS INDICATED. CIRCUIT COMBINATION	MAFC M/C MCB MCCB MCC	MAKE ALL FINAL CUNNECTIONS MULTI/CONDUCTOR MAIN CIRCUIT BREAKER MOLDED CASE CIRCUIT BREAKER MOTOR CONTROL CENTER	TDC TDO TMH TP TPS	TIME DELAY CLUSE TIME DELAY OPEN TELEPHONE MANHOLE TWISTED PAIR TWISTED PAIR SHIELDED
CLG CP CPT CT CU	CEILING CONTROL PANEL CONTROL POWER TRANSFORMER CURRENT TRANSFORMER COPPER	MCP MH MIN MLO MOD	MOTOR CIRCUIT PROTECTOR MOUNTING HEIGHT MINIMUM MAIN LUGS ONLY MOTOR OPERATED DAMPER	TST TTB/TTC TYP	THERMOSTAT SWITCH IN AUTO-TRANSFORMER STARTER TELEPHONE TERMINAL BOARD/CABINET TYPICAL
CX CCTV DAS DC	CONNECT TO EXISTING CLOSED CIRCUIT TELEVISION DATA ACQUISITION SYSTEM DIRECT CURRENT	MO MSP MTD MTG	METAL OXIDE MOTOR STARTER PANEL MOUNTED MOUNTING	UH UG UON UPS	UNIT HEATER UNDERGROUND UNLESS OTHERWISE NOTED UNINTERRUPTIBLE POWER SUPPLY
O/D DISC DN DP	OUTDOOR DISCONNECT DOWN DISTRIBUTION PANEL	N NEC NEMA	NEUTRAL NATIONAL ELECTRICAL CODE NATIONAL ELECTRICAL MANUFACTURER'S ASSOCIATION	V VFD	VOLTS OR VOLTAGE VARIABLE FREQUENCY DRIVE
DPC DWG EA	DISTRIBUTED PROCESS CONTROLLER DRAWING EACH	NFSS NO NO NC	NON FUSED SAFETY SWITCH NORMALLY OPEN NUMBER NORMALLY CLOSED	₩ ₩ ₩⁄ ₩₽	WATTS WIRE WITH WEATHERPROOF
ECD EF EH ELEV	ELEMENTARY CONTROL DIAGRAM EXHAUST FAN ELECTRIC HEATER ELEVATION	NTC NL NTS	NIGHT LIGHT NOT TO SCALE	XFMR **	TRANSFORMER CENTER LINE PHASE
EMERG. EMH EMT	ENERGENCY ELECTRIC MANHOLE ELECTRIC METALLIC TUBING	P	POLE OR POLES	#	A I NUMBER
ENCL E/O EQUIP FTM	ENCLOSURE ELECTRICALLY/OPERATED EQUIPMENT ELAPSED TIME METER	PB PH PL PL C	PUSH BUTTON PHASE PILOT LIGHT PROGRAMMABLE LOGIC CONTROLLER	FE	EDER/CONDUIT SCHEDULE
E TR EUH	EXISTING TO REMAIN ELECTRIC UNIT HEATER	PNL PS	PANELBOARD PRESSURE SWITCH	12 CIRCUI	O OR 277 VOLT, 1 PH, 2W CIRCUITS. T BREAKER CONDUCTOR
EWC EWH EX, EXIS EXP	ELECTRIC WATER COULER ELECTRIC WATER HEATER SEXISTING EXPLOSION PROOF	PSH PT PVC RC RECEPT	PRESSURE SWITCH HIGH POTENTIAL TRANSFORMER POLYVINYL CHLORIDE REMOTE CONTROL RECEPTACLE	20 30 40 50	A - 1P $2#12 & 1#12 & GND - 3 / 4'$ $A - 1P$ $2#10 & 1#10 & GND - 3 / 4'$ $A - 1P$ $2#8 & 1#10 & GND - 3 / 4''$ $A - 1P$ $2#8 & 1#10 & GND - 3 / 4''$ $A - 1P$ $2#6 & 1#10 & GND - 1''C$ $A - 1P$ $2#6 & 1#10 & GND - 1''C$
F F A F A	FUSE FRAME AMPS FIRE ALARM	REQ D RGS RM	REQUIRED RIGID GALVANIZED STEEL ROOM	2	08 VOLT, 1 PH, 2W CIRCUITS.
FAAP FACP FBO	FIRE ALARM ANNUNCIATOR PANEL FIRE ALARM CONTROL PANEL FURNISHED BY OTHERS UNDER SEPARATE CONTRACT	RMS RTD RTU RVAT	ROOT MEAN SQUARE RESISTANCE TEMPERATURE DETECTOR REMOTE TERMINAL UNIT REDUCED VOLTAGE AUTOTRANSFORMER	C I R C U I T 20 30 40	BREAKER         CONDUCTOR           A - 2P         2#12 & 1#12 GND - 3 /4'           A - 2P         2#10 & 1#10 GND - 3 /4'           A - 2P         2#8 & 1#10 GND - 3 /4''
FC FDR FL FLEX FMC	FAN CUIL UNIT FEEDER FLOOR FLEXIBLE FLEXIBLE METAL CONDUIT	SER. SF SG1-1A/	SUPPLY FAN PSWGR POWER WIRE RUN NUMBER - SWGR NUMBER AND UNIT NUMBER AS	50 60	A - 2P       2#6 & 1#10 GND - 1"C         A - 2P       2#6 & 1#10 GND - 1"C         8 OR 480 VOLT, 3 PH, 3W CIRCUITS.
FS FSS FT FVNR	FLOW SWITCH FUSED SAFETY SWITCH FOOT OR FEET FULL VOLTAGE NON-REVERSING		INDICATED	C I R C U I T 20A 30A	BREAKER         CONDUCTOR           - 3P         3#12 & 1#12 GND - 3 /4'           - 3P         3#10 & 1#10 GND - 3 /4'
F VR G GF I GF C I	FULL VOLTAGE REVERSING GROUND GROUND FAULT INTERRUPTER GOVERNMENT FURNISHED CONTRACTOR			40A 50A 60A	- 3P       3#8 & 1#10 GND - 3 74 G         - 3P       3#6 & 1#10 GND - 1"C         - 3P       3#6 & 1#10 GND - 1"C
GF G I GF P	INSTALLED GOVERNMENT FURNISHED GOVERNMENT INSTALLED GROUND FAULT PROTECTION			120/208 A CIRCUIT 20A 30A	ND       277/480       VOLT, 3       PH, 4W       CIRCUITS.         BREAKER       CONDUCTOR         - 3P       4#12       \$ 1#12       GND - 3       /4*         - 3P       4#10       \$ 1#10       GND - 3       /4*
HID HH HOA HP	HIGH INTENSITY DISCHARGE HANDHOLE HAND OFF AUTOMATIC HORSEPOWER			40A 50A 60A	- 3P       4#8 & 1#10 GND - 3 /4"C         - 3P       4#6 & 1#10 GND - 1"C         - 3P       4#6 & 1#10 GND - 1"C
RYLAND DE	EPARTMENT OF TRANSPORTATION		<b>Gannett</b> Fleming NR84	RING, INC. YLAND	PROFESSIONAL CERTIFICATION I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland

### **GENERAL NOTES**

License No. Expiration Date

- 1. ALL WORK SHALL COMPLY WITH THE LATEST NATIONAL ELECTRICAL CODE AND THE REQUIREMENTS OF ALL LOCAL CODES AND REGULATIONS OF AUTHORITIES HAVING JURISDICTION OVER THE WORK.
- 2. CAREFULLY EXAMINE ALL CONTRACT DRAWINGS/SPECIFICATIONS AND BE RESPONSIBLE FOR THE PROPER FITTING OF MATERIALS AND EQUIPMENT AT EACH LOCATION AS INDICATED. IN AS MUCH AS THE DRAWINGS ARE GENERALLY DIAGRAMMATIC BECAUSE OF THE SMALL SCALE OF THE DRAWINGS IT IS NOT POSSIBLE TO INDICATE ALL OFFSETS, FITTINGS AND ACCESSORIES WHICH MAY BE REQUIRED, FURNISHING SUCH FITTINGS AND ACCESSORIES AS MAY BE REQUIRED TO MEET SUCH CONDITIONS SHALL BE AT NO ADDITIONAL COST TO THE AUTHORITY.
- 3. EXAMINE THE SITE AND OBSERVE THE CONDITIONS OR OTHER CIRCUMSTANCES UNDER WHICH THE WORK WILL BE DONE WHICH WILL AFFECT THE CONTEMPLATED WORK.
- 4. VERIFY EXACT LOCATION, SIZE, AND EXTENT OF ALL EXISTING OBSTRUCTIONS AND/OR CONDITIONS WHICH MAY AFFECT THE PROPOSED WORK UNDER THE PROJECT. TAKE EVERY PRECAUTION TO PREVENT DAMAGE TO EXISTING WORK AND REPAIR ANY DAMAGE AS A RESULT OF THIS WORK.
- 5. COORDINATE ELECTRICAL WORK INCLUDING LIGHTING FIXTURE LOCATIONS WITH ALL MECHANICAL PIPING AND DUCT WORK TO AVOID INTERFERENCE.
- 6. PROVIDE CONNECTORS AND APPROPRIATE FITTINGS AT ALL LOCATIONS WHERE REQUIRED BY CODE AND/ OR REQUESTED BY ENGINEER. PROVIDE ADDITIONAL JUNCTION BOXES OR PULL BOXES NOT SHOWN BUT REQUIRED BY CODE DUE TO NUMBER OF BENDS WHERE CONDUITS CROSS THE BUILDING EXPANSION JOINTS, PROVIDE SPECIAL EXPANSION FITTINGS.
- 7. IN THE EVENT THAT POWER REQUIREMENT FOR MECHANICAL EQUIPMENT DIFFERS FROM THAT SHOWN ON ELECTRICAL DRAWINGS OR PANEL SCHEDULES ADJUST FEEDER AND CIRCUIT BREAKER SIZES ACCORDINGLY.
- 8. ALL WIRING INCLUDING FIRE ALARM, SECURITY, TELEPHONE/DATA, PUBLIC ADDRESS SYSTEM, AND HVAC CONTROLLER GENERAL WIRING SHALL BE IN CONDUITS.
- 9. WIRING SHALL BE SINGLE COPPER INSULATED CONDUCTOR CABLE IN CONDUIT MINIMUM WIRE SIZE SHALL BE #12 AWG, EXCEPT FOR CONTROL WIRING WHICH SHALL BE A MINIMUM #14AWG. USE # 10 AWG MINIMUM FOR 12 VOLT BRANCH CIRCUIT RUNS 75 FEET AND LONGER.
- 10. MINIMUM CONDUIT SIZE SHALL BE 3/4" GALVANIZED RIGID STEEL TYPE, UNLESS OTHERWISE NOTED ON DRAWINGS.
- 11. USE MAXIMUM OF 6 FEET OF FLEXIBLE CONDUIT FOR MOTOR CONNECTIONS FOR VIBRATION ISOLATION.
- 12. CONDUIT RUNS ARE SHOWN DIAGRAMMATICALLY. RUN ALL CONDUITS USING SHORTEST AND MOST DIRECT PATH WITH A MINIMUM OF BENDS AND ELBOWS. EXPOSED CONDUIT AND CABLE RUNS SHALL BE RUN PARALLEL/ PERPENDICULAR TO BUILDING ELEMENTS.
- 13. ALL EMBEDDED CONDUITS SHALL BE PVC SCHEDULE 40 IN CONCRETE UNDERGROUND DUCT BANKS OR OUTSIDE OF STRUCTURE WALLS. U.O.N. CONDUIT PLACEMENT IN STRUCTURE CONCRETE SHALL COMPLY WITH ACI 318 REQUIREMENT.
- 14. ALL EMBEDDED PVC CONDUIT SHALL BE PROVIDED WITH PVC-GRS CONDUIT ADAPTERS TO TRANSITION TO GRS CONDUITS PRIOR TO EXITING THE FLOOR OR WALL (EXCEPT TRACTION POWER SUPPLY).
- 15. CAP EACH CONDUIT STUB-UP TO PREVENT ANY FOREIGN MATERIAL FROM ENTERING INTO THE CONDUIT. CAP SHALL BE:
  - A. NON- TRACTION POWER SERVICE CONDUITS, O-Z GEDNEY PUSH-PULL TAB CAPS TYPE PPC OE EQUAL.
  - B. POSITIVE AND NEGATIVE TRACTION POWER CONDUITS USE. TYPE CSBE-300-P1 CABLE SEALS AND CSB1-300-P1 CABLE SEALS RESPECTIVELY WITH BLANK. PRESSURE DISC OR EQUAL FOR CONDUIT OVER 1-1/2". FOR CONDUITS UNDER 1-1/2" USE HEAVY WALL SHRINK TUBING AS A SEAL.
  - C. CONDUITS SHALL BE SWABBED AND PROOFED BEFORE INSTALLATION OF CAP SEALS.
- 16. ALL DUCT BANK CONDUITS SHALL BE ENCASED IN 3" OF CONCRETE WITH MINIMUM OF 2" CONDUIT SEPARATION UNLESS OTHERWISE NOTED.
- 17. ALL TRACTION POWER CONDUIT DUCT BANKS IN THE VICINITY OF TRACK SHALL BE A MINIMUM OF 4'-4" FROM TOP OF RAIL TO TOP OF THE DUCTBANK.

18. INSTALL A NYLON OR POLYESTER PULL-LINE IN EACH CONDUIT AS APPROVED BY THE ENGINEER.

19. PROVIDE GROUNDING CONDUCTORS INCLUDING GROUNDING ELECTRODE CONDUCTOR, EQUIPMENT GROUNDING CONDUCTORS, MAIN BONDING JUMPERS AS REQUIRED.

20. SEAL ALL PENETRATION OF SMOKE AND FIRE RATED WALLS. PENETRATIONS ARE TO FOLLOW METHODS UNDER UL LISTING.

DRAFT: Information shown is based on 30 percent preliminary engineering plans and may be subject to further revision pending refinements to the plans during the completion of the design phase. Any reliance upon any of these plans is made with full understanding of its draft status.

DESGN	MB	
DRAWN	DP	
CHECK	LJ	
APPR		

PRELIMINARY ENGINEERING PURPLE LINE LIGHT RAIL

LYTTONSVILLE YARD FACILITY GENERAL NOTES AND ABBREVIATIONS DATE: DECEMBER 2013 SCALE: NTS

T-1042-0220 DRAWING NO. EL-L01 SHEET NO. 137 OF 443

CONTRACT NO.

		ECTRICAL SYMBOLS LIST
<u>LIGH</u> ୧ (ଜା (ଜା ଡ ଜା	BLACK-LIT LED EXIST SIGN - WALL OR CEILING MOUNTED	SEE PLAN NOTES FOR FI
A O OI	COMPACT FLUORESCENT LIGHTING FIXTURE - CEILING/WAL	L MOUNTED. LETTER "A"
	AS FIXTURE TYPE ON THE PLANS. SEE PLANS NOTES FOR	FIXTURE MOUNTING HEIGH
	PLAN NOTES FOR FIXTURE MOUNTING.	FIXTURE ON EMERGENCE C
	FLUORESCENT LIGHTING FIXTURE. SEE LIGHTING FIXTURE SCHE	DULE FOR FIXTURE TYPE.
	FOR FIXTURE TYPE.	SEE LIGHTING FIXTURE
	FLUORESCENT LIGHTING FIXTURE - SURFACE OR PENDANT SCHEDULE FOR FIXTURE MOUNTING HEIGHT AND TYPE.	MOUNTED, SEE LIGHTING
	FLUORESCENT LIGHT FIXTURE ON EMERGENCY CIRCUIT - S LIGHTING FIXTURE SCHEDULE FOR FIXTURE MOUNTING HEI	URFACE OR PENDANT MOUN GHT AND TYPE.
	LINEAR FLUORESCENT LIGHTING FIXTURE. SEE LIGHTING FIXTU	IRE SCHEDULE
	4 FT PYLON/BOLLART LIGHT	
	PULE LIGHTING, SEE LIGHTING FIXTURE SCHEDULE FUR PULE H	EIGHI.
	125V, 20A, DUPLEX RECEPTACLE, MOUNTED 1'-6" AFF, U	.O.N.
Æ	125V, 20A, DUPLEX RECEPTACLE WITH GROUND FAULT INT	ERRUPTER MOUNTING
I G 🗢	125V, 20A, DUPLEX RECEPTACLE WITH ISOLATED GROUND. ORAN	IGE IN COLOR.
<b>+</b>	QUADRUPLEX RECEPTACLE, NEMA 5-20R, GROUNDING TYPE.	
÷	20A, 125VAC, SINGLE RECEPTACLE RATING AS INDICATED.	
	208V, 3 POLE, 4 WIRE, CIRCUIT BREAKING WELDING RECEPTAC	LE, RATING AS INDICATED.
-6	SPECIAL PURPOSE RECEPTACLE RECEPTACLE, SINGLE, RATING A	S INDICATED.
SWIT	CHES	
S	TOGGLE SWITCH, SINGLE POLE 120 /277V, 20A, SWITCH	MOUNTED 4'-O" AFF, U.O
S3	3-WAY SWITCH, 120/277V, 20A, MOUNTED 4'-O" AFF, U.	O.N
S <sub>4</sub> Su	4-WAY SWITCH, 120/277V, 20A, SWITCH MOUNTED 4'-0"	AFF, U.O.N. Rotection
s <sub>M</sub> S <sub>OS</sub>	TOGGLE SWITCH WITH OCCUPANCY SENSOR DUAL - TECHNOL	OGY TYPE.
Sa	SINGLE POLE SWITCH, 20A, 120-277V, LOWER CASE SUBS	CRIPT WHEN USED INDICA
SD	SINGLE POLE SWITCH, 20A, 120-277V, SUBSCRIPT D IND DIMMING BALLAST FOR THE FIXTURES INDICATED TO BE D	ICATES DIMMER. PROVIDE IMMED
3s <sub>K</sub>	SINGLE POLE SWITCH, 20A, 120-277V, KEY OPERATED	
s <sub>3K</sub>	THREE WAY SWITCH, 20A, 120-277V, KEY OPERATED	
Sp Spc	THREE-WAY SWITCH 20A, 120-277V REMOTE CONTROL-MOMEN	TARY CONTACT TOGGLE TY
- KC	WITH CENTRAL NEUTRAL POSITION	
[ <u>]</u> [99]	LIGHTING CUNTACTOR (X PULE) 277V	
•	PUSH BUTTON	
● <u>₽</u> С	PHOTO CELL	
© +© SAFET	CEILING/WALL MOUNTED OCCUPANCY SENSOR. PROVIDE POW Y SWITCHES / BREAKERS / STARTER	er pack as required. S
$\Box^{1}\frac{60}{3}$	NON-FUSED DISCONNECT SWITCH, SUBSCRIPT INDICATES 4 POLES	AMPACITY AND NUMBER OF
FJ <u>15</u> 3	FUSED DISCONNECT SWITCH, SUBSCRIPT INDICATES FUSED POLES	O SIZE AND NUMBER OF
2 🛛	MAGNETIC MOTOR STARTER, SUBSCRIPT INDICATES NEMA S	SIZE 2, NEMA SIZE 1
2 ⊠⊔ <u>60</u> 3	MAGNETIC MOTOR STARTER, SUBSCRIPT INDICATES NEMA S STARTER UON, 60 = SWITCH SIZE AND 3 = NO, OF POLE.	SIZE 2, NEMA SIZE 1 30AMPS, 3 POLES UON
MARYLAND DEPARTM	TRANSIT RATION MARYLAND	Diversified Engineering, Inc. Silver Spring, Maryland

	№ ноа	MANUAL MOTOR STARTER SWITCH WITH OVERLOAD. PROVIDE HOA AS REQUI	RED 1	DETAIL NUMBER.	
IXTURE	VFD	VARIABLE FREQUENCY DRIVE, INDIVIDUALLY MOUNTED	( E7.	02 DETAIL DESIGNATION.	
	VFD BP	VARIABLE FREQUENCY DRIVE WITH BYPASS STARTER		SHEET WHERE DETAIL IS DRAWN.	
INDICATE IT.	225	SOLID STATE STARTER, INDIVIDUALLY MOUNTED	(1	2 KEYED SPECIFIC NOTE DESIGNATION.	
CIRCUIT.SEE	$\frac{223}{200}$	ENCLUSED CIRCUIT BREAKER, SIZE AS INDICATED	/1	REVISION DESIGNATION.	
	EQUI	PMENT CONNECTION	Q	AIR TERMINAL	
SCHEDULE	<b>\$</b> 2	MOTOR, NUMBER INDICATES HORSEPOWER	FIR	E ALARM SYSTEM	
	H	ELECTRIC UNIT HEATER	 F	FIRE ALARM MANUAL PULL STATION, MOUNT 54" AFF.	
TIXTONE	JJ	JUNCTION BOX	Ē	⊲ <sub>15</sub> FIRE ALARM AUDIO/VISUAL. MOUNT 7'-O″ AFF (UON).	THE SUBSCRIPT
NTED. SEE	ĒĒ	EQUIPMENT CONNECTION AS NOTED		TO DENOTES THE CANDELA VALUE.	
		VARIABLE AIR VOLUME BOX	(F)	P <sub>15</sub> FIRE ALARM STRUBE, MUUNT 7 -0 AFF (UUN), THE SU DENOTES THE CANDELA VALUE.	BSCRIFT IS
		DOMESTIC WATER HEATER	F	C FIRE ALARM, AUDIO/VISUAL CEILING MOUNTED	
	CUH	CABINET UNIT HEATER	PS	] SPRINKLER SYSTEM PRESSURE SWITCH	
	$\langle 34 \rangle$	SHOP EQUIPMENT, NUMERAL INDICATES EQUIPMENT NUMBER. See equipment schedule on dwg. e-xx for detail.	FS	] SPRINKLER SYSTEM FLOW SWITCH	
	MOD	MOTOR OPERATED DAMPER		SPRINKLER SYSTEM LAMPER SWITCH	
	CP	CONTROL PANEL	(AC)	FIRE ALARM SYSTEM SMOKE DETECTOR, MOUNT ON CELL	$NG(U \cap N)$
	WIRIN	NG	() ()	FIRE ALARM SYSTEM HEAT DETECTOR. MOUNT ON CEILIN	IG (UON)
		HOMERUN TO PANEL · NUMBER OF ARROW HEADS INDICATES NUMBER OF	0	FIRE ALARM SYSTEM DUCT SMOKE DETECTOR	
	jit.	RUNS WITHOUT HATCH LINES INDICATES NUMBER OF WIRES.HUME 3/4" CONDUIT.	₹ FA	CP FIRE ALARM CONTROL PANEL (FACP)	
		- ARROW AND NUMERAL 2 INDICATE THAT ALL DEVICES BEHIND	FA	AP FIRE ALARM ANNUNCIATOR PANEL (FAAP)	
	2	ARROW ARE CONNECTED TO CIRCUIT NO. 2 UNLESS CIRCUIT NUMBER IS SHOWN ON EACH SEPARATELY.			
			P	ANELBOARDS	
		- CONDUIT CONCEALED IN WALL OR CEILING.		DISTRICTION RANELROARD ELUSH/SURFACE MOUNTED	277/480//40
) • N •		- CONDUIT EXPOSED.		DISTRIBUTION FANELBOARD FLUSH/SURFACE MOUNTED 120	, 211/400VAC.
		- CONDUIT CONCEALED IN FLOOR OR UNDERGROUND.		ATTETANCE TANLEBOARD TEOSITY SURFACE MOUNTED TEC	07200VAC.
		• CONDUIT OR CABLE TURNING AWAY OR DOWN.		T T7 DRY-TYPE TRANSFORMER. LETTER "T7" INDICATES TH NUMBER. RATING AS INDICATED ON DRAWING.	RANSFORMER
		o CONDUIT OR CABLE TURNING UPWARD OR TOWARDS VIEWER.		JUNCTION BOX CEILING/WALL MOUNTED WITH CONNECT	TION TO
TES	0	POINT OF CONNECTION		DEVICE OR EQUIPMENT INDICATED.	
	(PC)	PHOTO ELECTRIC CONTROL.	A	TS AUTOMATIC TRANSFER SWITCH	
-	$\bigcirc$		S	PD SURGE PROTECTION DEVICE.	
	(TS)	24 HOUR ADJUSTABLE TIMER.			
	GROL	JNDING			
	<u> </u>	- GROUND BUS 1/ 4" THICK X 2" WIDE, LENGTH AS INDICATED ON PLANS.	UN	IDERGROUND/SITE WORK	
PE	—GEC —	_ GROUNDING ELECTRODE INSULATED CONDUCTOR. SIZE AS INDICATED.	C	D EXISTING HANDHOLE	
	$\textcircled{\bullet}$	GROUNDING ROD.	——	GROUND CONDUCTOR	
	Ţ	SYSTEM GROUND OR EQUIPMENT GROUND.		HANDHOLE	
	<b>(</b> • <b>)</b>	- EXOTHERMIC WELD BONDING GROUND CONNECTION.	M	H MANHOLE	
	MISC	ELLANEOUS	H	HANDHOLE	
		- FUSE.	"A" /	SPECIFIC DUCTBANK SECTION DETAIL - SECTION SHOWN DENOTES EXISTING TO BE REMOVED U.N.O.	DASHED
		CIRCUIT BREAKER	1 2-	NEW CABLE DESIGNATION (TYPICAL) SEE CABLE SCHEDU	LE
	، ، بىلى			SPARE DUCT (TYPICAL)	
		TRANSFURMER. [7			
	(TC)	24 HOUR ADJUSTABLE TIMER.			
		EMERGENCY STOP PUSHBUTTON, MUSHROOM TYPE CAP WITH Protective ring, nema 4 enclosure mh 48″ Aff.			
PROFESSIONAL CE	ERTIFICATION		NS MR		CONTRACT NO.
I hereby certify the documents were pr	at these repared or	DRAFT: Information shown is based on 30 percent preliminary engineering plans and may be subject to			T-1042-0220
approved by me, a am a duly licensed	and that I d professional	further revision pending refinements to the plans during	YU DRA		DRAWING NO.
engineer under the the State of Maryle	e laws of and	any of these plans is made with full understanding	CHEC CHEC	LYTTONSVILLE YARD FACILITY	SHEET NO.
License No. Exp	piration Date	oj its arajt status.	АРРК	DATE: DECEMBER 2013 SCALE: NTS	138 OF 443











	DESGN	MB
ng	DRAWN	DP
0n	CHECK	MB
	APPR	

DRAFT: Information shown is based on 30 percent
further revision pending refinements to the plans during
the completion of the design phase. Any reliance upo any of these plans is made with full understanding
of its draft status.











PROFESSIONAL CERTIFICATION I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland License No. Expiration Date		DRAFT: Information shown is based on 30 percent preliminary engineering plans and may be subject to further revision pending refinements to the plans during the completion of the design phase. Any reliance upon any of these plans is made with full understanding of its draft status.	APPR CHECK DRAWN DESGN	MB DP LJ
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### SHEET NOTES

- A. REFER TO DRAWING EL-E01 AND EL-E02 FOR ELECTRICAL ABBREVIATIONS, SYMBOLS AND GENERAL NOTES.
- B. COORDINATE ELECTRICAL EQUIPMENT AND CONDUIT INSTALLATION WITH MECHANICAL WORK, OVERHEAD PLUMBING PIPING, AND OTHER EQUIPMENT.
- C. LABEL ALL JUNCTION BOXES AND PULL BOXES INDICATING THEIR VOLTAGE AND USAGE.
- D. FOR NEW WIRING CONDUIT, AND FEEDER CONNECTIONS, SEE PANELBOARD SCHEDULES.
- E. FOR LIGHTING FIXTURES SCHEDULE, SEE SHEET EL-E20.

### SPECIFIC NOTES

FOR WIRING CONNECTION, SEE DETAIL X/ EL-E21



	CONTRACT NO.
PRELIMINARY ENGINEERING	T-1042-0220
PURPLE LINE LIGHT RAIL	DRAWING NO.
LYTTONSVILLE YARD FACILITY	EL-L04
YARD STORAGE PLAN – LIGHTING	SHEET NO.
DATE: DECEMBER 2013 SCALE: 1" = 3	140 OF 443





	PROFESSIONAL CERTIFICATION	DRAFT: Information shown is based on 30 percent	DESGN	MB
documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland	<i>preliminary engineering plans and may be subject to</i> <i>further revision pending refinements to the plans during</i>	DRAWN	DP	
	ngineer under the laws of ne State of Maryland	the completion of the design phase. Any reliance upon any of these plans is made with full understanding	CHECK	LJ
	License No. Expiration Date	of its draft status.	APPR	





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PROFESSIONAL CERTIFICATION	DRAFT: Information shown is based on 30 percent	DESGN	MB
documents were prepared or approved by me, and that I	<i>preliminary engineering plans and may be subject to</i> <i>further revision pending refinements to the plans during</i>	DRAWN	DP
engineer under the laws of the State of Maryland	the completion of the design phase. Any reliance upon any of these plans is made with full understanding	CHECK	LJ
License No. Expiration Date	of its draft status.	APPR	

### SHEET NOTES

- A. THE PARKING AREA LIGHTING SHALL BE DUAL HEAD LED LIGHTING FIXTURE MANUFACTURED BY COOPER LIGHTING, CATALOG # VTS-B10-LED-E1-T4, WITH (10) 21 LED BARS WITH ACCU LED OPTICS AND TYPE 4 DISTRIBUTION. THE LIGHTING FIXTURES SHALL BE MOUNTED ON 15'-0" DARK BRONZE SQUARE POLE ON 3'-O" CONCRETE POLE FOUNDATION.
- B. REFER TO DRAWING EL-E01 AND EL-E02 FOR ELECTRICAL ABBREVIATIONS, SYMBOLS AND GENERAL NOTES.
- C. COORDINATE ELECTRICAL LIGHT POLE AND CONDUIT INSTALLATION WITH STRUCTURE, AND OTHER EQUIPMENT.
- D. LABEL ALL JUNCTION BOXES AND PULL BOXES INDICATING THEIR VOLTAGE AND USAGE.
- E. FOR LIGHTING FIXTURES SCHEDULE, SEE SHEET EL-E20.

### SPECIFIC NOTES

FOR WIRING CONNECTION, SEE DETAIL X/ EL-E21 1





PRELIMINARY ENGINEERING	contract no. <b>T–1042–0220</b>
PURPLE LINE LIGHT RAIL	DRAWING NO.
LYTTONSVILLE YARD FACILITY	EL-L06
PARKING DECK LEVEL PLAN – LIGHTING	SHEET NO.
DATE: DECEMBER 2013 SCALE: 1" = 30'	142 OF 443



	SP	ECIFIC	NOTES				
$\langle 1 \rangle$	FOR	WIRING	CONNECTION,	SEE	DETAIL	х/	EL
$\langle 2 \rangle$	NOT	USED					



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DESGN	MB
DRAWN	DP
CHECK	LJ
APPR	

### SHEET NOTES

(A A)- ·

- A. REFER TO DRAWING EL-E01 AND EL-E02 FOR ELECTRICAL ABBREVIATIONS, SYMBOLS AND GENERAL NOTES.
- B. COORDINATE ELECTRICAL EQUIPMENT AND CONDUIT INSTALLATION WITH MECHANICAL WORK, OVERHEAD PLUMBING PIPING, AND OTHER EQUIPMENT.
- C. LABEL ALL JUNCTION BOXES AND PULL BOXES INDICATING THEIR VOLTAGE AND USAGE.
- D. FOR NEW WIRING CONDUIT, AND FEEDER CONNECTIONS, SEE PANELBOARD SCHEDULES.
- E. FOR LIGHTING FIXTURES SCHEDULE, SEE SHEET EL-E20.





## SPECIFIC NOTES



FOR WIRING CONNECTION, SEE DETAIL X/ EL-E21

NOT USED






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- C. LABEL ALL JUNCTION BOXES AND PULL BOXES INDICATING THEIR VOLTAGE AND USAGE.
- D. FOR NEW WIRING CONDUIT, AND FEEDER CONNECTIONS, SEE PANELBOARD SCHEDULES.
- E. FOR LIGHTING FIXTURES SCHEDULE, SEE SHEET EL-E20.

# SPECIFIC NOTES

(1) FOR WIRING CONNECTION, SEE DETAIL X/ EL-E21

2 PROVIDE JUNCTION BOX PANEL FOR LED DRIVER AND ACCESSIBLE.



8′	0	8′	16′
	SCALE: 1/8	<sub>3</sub> ″=1′−0″	

PRELIMINARY ENGINEERING PURPLE LINE LIGHT RAIL	contract no. <b>T-1042-0220</b> drawing no.		
I YTTONSVILLE YARD FACILITY	EL-L09		
WASH BUILDING PLAN - LIGHTING	SHEET NO.		
DATE: DECEMBER 2013 SCALE: 1/8" = 1'-0"	_145_OF_443_		



License No. Expiration Date

DESGN	MB	
DRAWN	DP	
CHECK	LJ	
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		CONTRACT NO.
PRELIMINARY ENGINEERING		T–1042–0220
PURPLE LINE LIGHT RAIL		DRAWING NO.
		FI _  10
LYTTONSVILLE YARD FACILITY		
YARD LEVEL FLOOR PLAN - POV	VER	SHEEL NO.
DATE: DECEMBER 2013 SCALE:	1⁄8" =1'-0"	146 OF 443
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License No. Expiration Date	of its draft status.		APPR	

## SHEET NOTES

- A. REFER TO DRAWING EL-LO1 FOR ELECTRICAL ABBREVIATIONS, SYMBOLS AND GENERAL NOTES.
- B. COORDINATE ELECTRICAL EQUIPMENT AND CONDUIT INSTALLATION WITH MECHANICAL WORK, OVERHEAD PLUMBING PIPING, AND OTHER EQUIPMENT.
- C. LABEL ALL JUNCTION BOXES AND PULL BOXES INDICATING THEIR VOLTAGE AND USAGE.





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arr en the	engineer under the laws of the State of Maryland	the completion of the design phase. Any reliance upon any of these plans is made with full understanding	CHECK	LJ
	License No. Expiration Date	of its draft status.	APPR	

DESGN	MB	
DRAWN	DP	
CHECK	LJ	
R		

### LEGEND

- TW 30KVA DRY TYPE TRANSFORMER, PRIMARY: 480V, 3 PH; SECONDARY: 208/120V, 3 PH, 150°C TEMPERATURE RISE D4 ELECTRICAL DISTRIBUTION PANEL, 600A, 480/277V, 3 PHASE, 4 WIRE + GROUND
- D8 100A, 208/120V, 3 PHASE, 4 WIRE PANEL
- DC UPS, 208/120V, 3 PHASE, 5 WIRE PANEL



8′	0	8′	16′
	SCALE:	8″=1′-0″	

PRELIMINARY ENGINEERING	contract no. <b>T–1042–0220</b>
PURPLE LINE LIGHT RAIL	DRAWING NO.
LYTTONSVILLE YARD FACILITY	EL-L13
WASH BUILDING PLAN – POWER	SHEET NO.
DATE: DECEMBER 2013 SCALE: 1/8" = 1'-0"	<u>149</u> of <u>443</u>







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engineer under the laws of the State of Maryland	the completion of the design phase. Any reliance upon any of these plans is made with full understanding	CHECK	LJ
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t	the State of Maryland	any of these plans is made with full understanding	Ċ	
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Diversified engineering, INC. Silver spring, maryland

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# WASH BUILDING - FIRE ALARM

SCALE: 1/8"=1'-0"

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			LIGHTING FIXTURE S	CHEDULE				
TYPE	SYMBOL	DESCRIPTIONS	MANUFACTURER/CATALOG NO	EQUAL MANUFACTURER	LAMP	VOLT WATTS	MOUNTING	REMARKS
А	0	2'X2' FLUORESCENT LIGHTING FIXTURE	LITHONIA 2SP8-G-2-CF40-A12125 -MVOLT-ACNS-LP835		(2) CF40 835	277	RECESSED	FOR CORRIDORS
Α1	●	2'X2' FLUORESCENT LIGHTING FIXTURE ON EMERGENCY POWER	LITHONIA 2SP8-G-2-CF40-A12125 -MVOLT-EL		(2) CF40 835	277	RECESSED	FOR CORRIDORS
В	0	2'X4' FLUORESCENT LIGHTING FIXTURE	LITHONIA 2SP5-G-3-54T5HO-RA125 -MVOLT-GEB10PS-LB835		(3) 54T5HO 835	277	RECESSED	FOR OFFICES
B1	•	2'X4' FLUORESCENT LIGHTING FIXTURE ON EMERGENCY POWER	LITHONIA 2SP5-G-3-54T5HO-RA125 -MVOLT-GEB10PS-EL14		(3) 54T5HO 835	277	RECESSED	FOR OFFICES
С		4-FT. COVE PERIMETER FLUORESCENT LIGHTING FIXTURE	COPPER NEORAY 70-2-T5-UNV-EB-SI-S72		(2) T5	277	RECESSED	FOR TOILETS
C 1		VARIOUS LENGHT COVE PERIMETER FLUORESCENT LIGHTING FIXTURE	COPPER NEORAY 70-2-T5-UNV-EB-SI-S72		(2) T5	277	RECESSED	FOR TOILETS SEE NOTE 4.
D	<u>_</u>	4-FT. SURFACE WALL MOUNTED FLUORESCENT LIGHTING FIXTURE				277	SURFACES	
D1	• H	4-FT. WALL MOUNTED FLUORESCENT LIGHTING FIXTURE ON EMERGENCY POWER	COPPER STAIRLITE 2 SL2-4-7			277	SURFACES	FOR STAIRS
E	* *	LED EXIT SIGNS	COPPER SURE-LITE EU-S-60-R			120- 277	WALL / CEILING	
F	<b>⊢</b> 0–1	4-FT. INDUSTRIAL STRIP LIGHT	LITHONIA EJS-2-32-MVOLT-BPHP		(2) T5	277	SURFACES / PENDANT	STORAGE / ELECTRICAL / MECHANICAL ROOM
F 1	<b>⊢_●</b> 1	4-FT. STRIP LIGHT ON EMERGENCY POWER	LITHONIA EJS-2-32-MVOLT-EL		(2) T5	277	SURFACES / PENDANT	ELECTRICAL / MECHANICAL ROOM
G	0	6" RECESSED DOWNLIGHT	LITHONIA LP6FN-26TRT-609AZ-MVOLT		CF	277	RECESSED	FOR VESTIBULES
G 1	0	6" RECESSED DOWNLIGHT WITH CLEAR LENS	LITHONIA LP6FN-26TRT-609AZ-CGL-MVOLT		CF	277	RECESSED	FOR TOILETS / SHOWERS
G2	0	6" RECESSED DOWNLIGHT WITH DIMMING BALLAST	LITHONIA LP6FN-26TRT-609AZ-CGL-MVOLT-ECOS		CF	277	RECESSED	CONFERENCE ROOM
G3	•	6" DOWNLIGHT ON EMERGENCY POWER	LITHONIA LP6FN-26TRT-609AZ-CGL-MVOLT		LED	277	RECESSED	
Н	0	LED HIGHBAY LIGHTING FIXTURE	COPPER METALUX HBLED-LD2-24-N-CL-UNIV-L850-CD3		LED	277	PENDANT	FOR WASH AREAS
К	0	LED CANOPY LIGHTING FIXTURE	COPPER CONCISE CNC-B03-LED-E1-RW		(3) 21 LED BARS	277	PENDANT	FOR YARD STORAGE AREAS
L	•	6" EXTERIOR LIGHTING FIXTURE				277	RECESSED / SURFACE	ENTRANCE / EXIT ROUTES
М	9	VAPORTIGHT COMPACT FLUORESCNT LIGHTING FIXTURE	COPPER PL-VS-W-GG-32-UNV		CF	120	SURFACES	ELEVATOR PIT
Ρ	•-	LED YARD / TRACK LIGHT SINGLE LIGHT UNIT WITH 25 FT. POLE	COPPER VENTUR VTS-B10-LED-E1-T4		(8) LED BARS	277	25 FT. POLE	FOR PARKING, YARD AND TRACK AREAS

MARYLAND TRANSIT ADMINISTRATION Maryland



DIVERSIFIED ENGINEERING, INC. SILVER SPRING, MARYLAND

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DESGN	MB	
DRAWN	DP	
CHECK	LJ	
APPR		

## NOTES

- 1. COORDINATE LIGHTING FIXTURE INSTALLATION WITH CEILING TYPE. SEE DETAILS FOR LIGHTING FIXTURE SUPPORTING.
- 2. ALL LAMPS SHALL BE LOW-MERCURY TYPE.
- 3. LIGHTING FIXTURE TO BE DIMED TO 90% DURING EVENING AND 50% DURING OVERNIGHT SECURITY HOURS. DAY-LIGHTING PHOTO SENSOR TO ACTIVE LIGHTING FIXTURE DURING DAYTIME HOURS AND REQUIRED.
- 4. PROVIDE LIGHTING FIXTURE LENGHT WITH ROOM DIMENSION TO FILL-IN. COORDINATE WITH MANUFACTURER FOR LIGHTING FIXTURE HOUSING STANDARD LENGHTS.

	CONTRACT NO.
PRELIMINARY ENGINEERING	T-1042-0220
PURPLE LINE LIGHT RAIL	DRAWING NO
LYTTONSVILLE YARD FACILITY	EL-LZU
LIGHTING FIXTURE SCHEDULE	SHEET NO.
DATE: DECEMBER 2013 SCALE: NTS	<u>155</u> of <u>443</u>



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License No. Expiration Date	of its draft status.	APPR	



### TYPICAL 6-WAY DUCTBANK SCALE: NOT TO SCALE

CONCRETE SHALL BE 3,000 PSI @ 28 DAYS OR AS SPECIFIED.

PROVIDE REINFORCING RODS ON TOP OF DUCTS PLACING IN ROADWAYS, CROSSING ROADWAYS, ENTERING BUILDINGS, OR ENTERING MANHOLES.

NOMINAL COVER TO TOP OF ENVELOP SHALL BE 30". PROVIDE CONDUIT SPACERS.

	CONTRACT NO.
PRELIMINARY ENGINEERING	T–1042–0220
PURPLE LINE LIGHT RAIL	DRAWING NO.
LYTTONSVILLE YARD FACILITY	
ELECTRICAL DETAILS – 1	SHEET NO.
DATE: DECEMBER 2013 SCALE: NTS	<u>156</u> OF <u>443</u>

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## LEGEND

SEE DRAWING EL-L23.

CIRCUIT BREAKER WITH SHUNT TRIP FOR GENERATOR MOBIL LOAD TEST

- EMERGENCY GENERATOR OUTDOOR 200KW/250KVA AT 0.8 POWER FACTOR Τ2 T 1 / X X / / 480/277V FEEDERS

	CONTRACT NO.
PRELIMINARY ENGINEERING	T-1042-0220
PURPLE LINE LIGHT RAIL	
	DRAWING NO.
LYTTONSVILLE YARD FACILITY	EL-L22
POWER RISER DIAGRAM	SHEET NO.
DATE: DECEMBER 2013 SCALE: NTS	<u>157</u> of <u>443</u>



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### LEGEND

FT	MEDIUM VOLTAGE FUSE.
GE SPD	SURGE PROTECTION DEVICE.
T1 AND T2	1500 KVA, TRANSFORMER, PRIMARY MEDIUM VOLTAGE, SECONDARY 480 /277, 3PH.
BK1, BK2	2000A, 600V, 3PH.
GFP	GROUND FAULT PROTECTION RELAY.
F	LOW VOLTAGE FUSE.
PT	POTENCIAL TRANSFORMER.
СТ	CURRENT TRANSFORMER.
NERATOR TIE BK	TIE CIRCUIT BREAKER.
R FACTOR D1	ELECTRICAL DISTRIBUTION PANEL FOR SPACE IN YARD LEVEL STORAGE AREAS400A, 3PH, 4-WIRE + GROUND.
D2	ELECTRICAL DISTRIBUTION PANEL FOR FIRST FLOOR LEVEL. 400A, 480V, 3 PH, 4- WIRE + GROUND.
RIP D3	ELECTRICAL DISTRIBUTION PANEL FOR SECOND FLOOR LEVEL. 225A, 480V, 3 PH, 4-WIRE + GROUND.
D4	ELECTRICAL DISTRIBUTION PANEL FOR WASH BUILDING. 600A, 480V, 3 PH, 4-WIRE + GROUND.
D5	ELECTRICAL DISTRIBUTION PANEL SPARE. 225A, 480V, 3 PH, 4 WIRE + GORUND.
EMP	MAIN EMERGENCY PANEL, 400A, 480V, 3 PH, 4-wire + ground.
EPL	EMERGENCY ELECTRICAL PANEL FOR LIFE SAFETY System 100A, 480V, 3 PH, 4-WIRE + GROUND.
EPP	EMERGENCY ELECTRICAL PANEL, 225A, 480V, 3 PH, 4 wire + ground. (stand by power).
UPS	
UPSB	MAIN UPS PANEL, 208/120V, 3 PHASE, 5 WIRE UPS Panel
D6	208/120V, 3 PHASE, 5 WIRE UPS PANEL
D7	208/120V, 3 PHASE, 5 WIRE UPS PANEL

	CONTRACT NO.
PRELIMINARY ENGINEERING	T–1042–0220
PURPLE LINE LIGHT RAIL	DRAWING NO.
	FI _  23
LYTTONSVILLE YARD FACILITY	
POWER SINGLE LINE DIAGRAM	SHEET NO.
DATE: DECEMBER 2013 SCALE: NTS	<u>158</u> OF <u>443</u>

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Diversified engineering, inc. Silver spring, maryland



### FIRE ALARM ANNUNCIATOR PANEL

SCALE: 1'' = 40'

## DEVICE TYPE

- R MANUAL PULL STATION R SMOKE DETECTOR R HEAT DETECTOR (Y) DUCT SMOKE DETECTOR  $(\mathbf{Y})$ TAMPER SWITCH R WATER FLOOR SWITCH (Y) elevator room smoke detector Y BEAM DETECTOR (Y) ELEVATOR ROOM HEAT DETECTOR G FIRE CURTAIN OPEN
- R FIRE CURTAIN CLOSED

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	INU.
T-1042-	0220
PURPLE LINE LIGHT RAIL	NO
LYTTONSVILLE YARD FACILITY	24
FIRE ALARM ANNUNCIATOR PANEL DIAGRAM	NO.
DATE: DECEMBER 2013 SCALE: NTS <u>159</u> OF	443



## FIRE ALARM NOTES

- 1. ALL WIRING SIZES, RACEWAY SIZES, AND THEIR QUANTITIES SHALL BE STRICTLY IN ACCORDANCE WITH THE FIRE ALARM MANUFACTURER'S RECOMMENDATIONS AND CITY OF BALTIMORE FIRE MARSHAL REQUIREMENTS. ALL WIRING SHALL BE INSTALLED IN EMT RACEWAYS.
- 2. FIRE ALARM SYSTEM RISER DIAGRAM IS DIAGRAMMATIC. RUNS OF RACEWAYS AND THE MANNER OF CONNECTIONS SHALL BE DETERMINED BY THE CONTRACTOR IN FIELD. THE INSTALLATION OF THE FIRE ALARM SYSTEM SHALL MEET SYSTEM'S MANUFACTURER AND MARYLAND STATE FIRE MARSHAL'S REQUIREMENTS.
- 3. THE CONTRACTOR SHALL BE RESPONSIBLE TO SUBMIT THE FIRE ALARM SYSTEM SHOP DRAWINGS TO STATE OF MARYLAND FIRE MARSHALL AND OBTAIN FIRE MARSHAL'S APPROVAL PRIOR TO ANY SUBMISSION TO ARCHITECT OF RECORD AND ENGINEER AND ANY INSTALLATION OF THE SYSTEM WORK.
- 4. FIRE ALARM SYSTEM DEVICES AND EQUIPMENT ARE SHOWN ON THE PLANS.
- 5. ALL MANUAL PULL STATIONS SHALL BE LOCATED WITHIN 5 FEET OF THE EXIT DOORS. ALL FIRE ALARM VISUAL DEVICES SHALL BE MOUNTED AT A HEIGHT WHICH IS IN THE LINE OF SIGHT AND ADA REQUIREMENTS. SEE DETAIL 2/E5.05 ON THIS SHEET FOR MOUNTING HEIGHT OF FIRE ALARM DEVICES.
- 6. NUMBER OF SMOKE DETECTORS SHOWN IN EACH ROOM MAYBE LESS THAN THE ACTUAL NUMBER REQUIRED TO MEET NFPA72 REQUIREMENTS. PROVIDE A SUFFICIENT NUMBER OF DETECTORS TO COVER ALL POCKETS CREATED BY EXPOSED CEILING BEAMS.
- 7. FIRE ALARM SYSTEM SHALL BE COORDINATED WITH FIRE PROTECTION SYSTEM IN PREPARING ZONES. THE FIRE ALARM SHOP DRAWINGS SHALL BE SUBMITTED AFTER COORDINATING WITH APPROVED SHOP DRAWINGS OF FIRE PROTECTION SYSTEM.
- 8. PROVIDE EMERGENCY GENERATOR STATUS INDICATING FOR EMERGENCY POWER "ON" AND "OFF"
- 9. PROVIDE SHUT OFF SWITCHES FOR HVAC UNITS IN ACCORDANCE WITH NFPA 72, BOTH AT ANNUNCIATION PANEL AND AT FIRE ALARM CONTROL PANEL.
- 10. SHOP DRAWINGS SHALL INCLUDE ALL BUILDING FLOOR PLANS INDICATING THE ZONES AND THE LOCATIONS OF ALL FIRE ALARM EQUIPMENT, DEVICES AND OTHER COMPONENTS SUCH AS JUNCTION BOXES. SHOP DRAWINGS SHALL CLEARLY INDICATE THE CANDELA POWER AND SOUND LEVEL WITH EACH DEVICE AND THEIR MOUNTING HEIGHT ON THE FLOOR PLANS.
- 11. SUBMIT FIRE ALARM WIRING RISER DIAGRAM, PANEL WIRING DIAGRAM AND EACH DEVICE WIRING DETAILS CLEARLY INDICATING THE NUMBER OF CONDUCTORS AND THE SIZE OF CONDUIT.
- 12. SHOP DRAWINGS SHALL CLEARLY INDICATE THE PHYSICAL DIMENSIONS OF EACH EQUIPMENT AND/OR DEVICE.
- 13. SHOP DRAWINGS SHALL INCLUDE THE FIRE ALARM ANNUNCIATION PANEL INDICATING THE FLOOR PLANS, EXITS AND ALL INDICATING LIGHTS AND CONTROLS ETC. IN ACCORDANCE WITH NFPA 72 AND CITY OF BALTIMORE FIRE MARSHALL.
- 14. SHOP DRAWING SHALL INCLUDE BATTERY CALCULATIONS IN ACCORDANCE WITH SPECIFICATIONS. BATTERY CALCULATIONS SHALL INDICATE NUMBER OF EACH TYPE OF DEVICE, CURRENT REQUIREMENTS AND LOCATION.
- 15. SHOP DRAWINGS SHALL INCLUDE THE LIST OF SPARE PARTS. THE CONTRACTOR SHALL BE RESPONSIBLE TO SUPPLY THESE SPARE PARTS TO THE OWNER AT THE COMPLETION OF THE PROJECT.
- 16. SHOP DRAWINGS SHALL INCLUDE INSTALLATION AND PROGRAMMING INSTRUCTIONS. 17. ACTUAL COUNTS OF FIRE ALARM DEVICES IS PER PLANS.

## LEGEND

FATC	FIRE ALARM	TERMINAL CABINET
FATC (1	) LOCATED AT	YARD LEVEL WEST
FATC (2	) LOCATED AT	YARD LEVEL EAST
FATC (3	) LOCATED AT	FIRST FLOOR
FATC (4	) LOCATED AT	SECOND FLOOR

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engineer under the laws of the State of Maryland	the completion of the design phase. Any reliance upon any of these plans is made with full understanding	CHECK	LJ
License No. Expiration Date	of its draft status.	APPR	

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	CONTRACT NO.	
PRELIMINARY ENGINEERING	T-1042-0220	
PURPLE LINE LIGHT RAIL		
	DRAWING NU.	
LYTTONSVILLE YARD FACILITY	EL–L25	
RISER AND NOTES – FIRE ALARM	SHEET NO.	
DATE: DECEMBER 2013 SCALE: NTS	_160_OF_443_	/



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					AND ADDILL
ABV	ABOVE	GA	GAUGE	RBJ	RUN BETWEEN JOIST
AFF	ABOVE FINISHED FLOOR	GALV	GALVANIZED	RCP	REINFORCED CONCRETE PIF
AMPS	AMPERES	GC	GENERAL CONTRACTOR	REL	RELIEF
BFP	BACKFLOW PREVENTER	GPM	GALLONS PER MINUTE	REQD	REQUIRED
- BLDG	BUTIDING	НT	HEIGHT	RPM	REVOLUTION PER MINUTES
BLW	BELOW	HD	HEAD (SEE SCHEDULES)	SCH	SCHEDIII F
CEH	CUBIC FEET PER HOUR	HP	HORSE POWER	SCHEM	SCHEMATIC
		ΙD	INTERNAL DIAMETER	SPEC	SPECIFICATION
		INCL	INCLUDING	SQ	SQUARE
		INV	INVERT	SS	STAINLESS STEEL
	CONCRETE	ΙH	LIGHT HAZARD	SST	SUPPORT STEFI
		ΜΔΧ	ΜΔΧΙΜΙΜ	STD	STANDARD
		MC	MECHANICAL CONTRACTOR	STL	STEFI
		MED	MEDILIM	STR	STRAINER
		MER	ΜΔΝΙΙΕΔΩΤΙΙRER	SHR	
	DEGREES CENTIGRADE	MIN		501	SYSTEM
DIA	DIAMEIER	MISC		тпн	TOTAL DYNAMIC HEAD
DIAG	DIAGRAM	MTD	MIISUELLANEUUS	TEMP	
DISCH	DISCHARGE				TOTAL DRESSURE
DIW	DOWN IN WALL		NORMALLI GLUSED		
DN	DOWN	NIC			
DWG	DRAWING	NO		15	IAMPER SWITCH
(E)	EXISTING		NURMALLY UPEN	W	WIDIH
ΕA	EACH		NUN-PUTABLE WATER	W/	WITH
ELEV	ELEVATION		NUMINAL	W/U	WITHUUT
ENT	ENTERING		NUL IU SUALE		
EQ	EQUAL		ORDINART HAZARD - GROUP T		
EQUIP	EQUIPMENT	UHGR-2	URDINARY HAZARD - GRUUP 2		
EQUIV	EQUIVALENT	UD	UUISIDE DIMENSIUN		
ETC	ET CETERA	UPG	UPENING		
EXT	EXTERNAL	OS	OPEN SITE		
FA	FROM ABOVE	01			
FB	FROM BELOW	PARI	PARIIAL		
FIN	FINISHED	РН	PHASE		
FL	FLANGE	POS	POSITIVE		
FLEX	FLEXIBLE	PRESS	PRESSURE		
FLR	FLOOR	PRV	PRESSURE REGULATING VALVE		
FP	FIRE PROTECTION	PS	PRESSURE SWITCH		
FS	FLOW SWITCH	PSI	POUNDS PER SQUARE INCH		
FΤ	FEET	PSIG	POUNDS PER SQUARE INCH GAU	JGE	
FTB	FLOOR TO BOTTOM	PG	PRESSURE GAUGE		
FDC	FIRE DEPARTMENT CONNECTION	ΡI	PRESSURE INDICATOR		
FXC	FLEXIBLE CONNECTION	QT.	QUANTITY		
FHV	FIRE HOSE VALVE	QD	QUICK DISCONNECT		
FHVC	FIRE HOSE VALVE CABINET	RAC	RUN ABOVE CEILING		
		RAF	RUN ABOVE FLOOR		
		RATC	RUN AT CEILING		
		RBC	RUN BELOW CEILING		
		RBF	RUN BELOW FLOOR		

MARYLAND TRANSIT ADMINISTRATION Maryland



DIVERSIFIED ENGINEERING, INC.

# SYMBOLS AND ABBREVIATIONS

ETE PIPE - TS TS

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₩ 2<sup>1</sup>/<sub>2</sub>"FHV W/1<sup>1</sup>/<sub>2</sub>"REDUCER USTANDPIPE

FDC	FDC
<u>,                                    </u>	ç(

FHC → → ↓ ↓ ↓ ↓ ↓

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۶ <u>ــــــــــــــــــــــــــــــــــــ</u>
STR STR
, <u>PG</u> ø

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STANDPIPE SIAMESE

PRIVATE HYDRANT ONE HOSE OUTLET DOUBLE CHECK TYPE BACKFLOW PREVENTER FIRE HOSE VALE/ FIRE DEPARTMENT CONNECTION FIRE HOSE CABINET FLOW DETECTOR / SWITCH PRESSURE REDUCING VALVE TAMPER DETECTOR / SWITCH VALVE WITH TAMPER DETECTOR / SWITCH SPRINKLER PIPING AND BRANCH LINE PIPE HANGER ALARM CHECK VALVE

VALVE (GENERAL)

OS&Y VALVE W/TS

OS&Y VALVE

CHECK VALVE

POST INDICATOR VALVE

STRAINER

PRESSURE SWITCH

PRESSURE GAUGE FIRE PROTECTION RISER NUMBER

FIRE PROTECTION GENERAL NOTES 1. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH NFPA 13, NFPA 14, AND NFPA 20, 2. SPRINKLER WATER DEMAND SHALL BE BASED ON ORDINARY HAZARD (GROUP 1) OCCUPANCY REQUIREMENTS. WATER DENSITY OF 0.15 GPM PER SQ FT AND 1500 SQ FT PROTECTION AREA. SPRINKLER HEAD COVERAGE OF 130 SQ FT IN COMPLIANCE WITH NFPA 13, AUTHORITIES HAVING JURISDICTION. 3. THE SPRINKLER CONTRACTOR SHALL OBTAIN A FULL SET OF PLANS AND SPECIFICATIONS FOR THIS PROJECT AND SHALL BE AWARE OF THE WORK OF ALL OTHER TRADES WHICH MAY REQUIRE COORDINATION. 4. ALL FIRE PROTECTION PLANS ARE DIAGRAMMATIC IN FORM AND ARE FOR INFORMATION ONLY TO SHOW POTENTIAL FIELD ARRANGEMENT. THE CONTRACTOR SHALL FABRICATE PIPING SYSTEM BASED ON FIELD MEASUREMENTS TO ENSURE THE PROPER ROUTING AND FIT. 5. SPRINKLER CONTRACTOR SHALL PROVIDE HYDRAULIC CALCULATIONS FOR SIZING THE SPRINKLERS, SHALL BE APPROVED BY FIRE MARSHALL, OR AUTHORITY HAVING JURISDICTION. 6. SPRINKLER CONTRACTOR IS REQUIRED TO INSPECT THE SITE AND ALL RELATED DOCUMENTS PRIOR TO START OF WORK. 7. SPRINKLER CONTRACTOR TO VERIFY ALL DIMENSIONS AND CONDITIONS PRIOR TO BEGINNING WORK AND SHALL NOTIFY THE OWNER OF ANY CONFLICT, OMISSIONS OR DISCREPANCIES. 8. CONTRACTOR SHALL OBTAIN AND PAY FOR ALL PERMITS AND PAY ALL FEES RELATIVE TO THE INSTALLATION OF HIS WORK. 9. INSTALL DRAIN VALVE AT EVERY LOW POINT ON HORIZONTAL PIPING. 10. IT SHALL BE THE RESPONSIBILITY OF THE SPRINKLER CONTRACTOR TO COORDINATE HIS WORK WITH THAT OF ALL OTHER TRADES AND SHALL PROVIDE ALL REQUIRED OFFSETS IN PIPING TO ACCOMPLISH THE WORK AT NO ADDITIONAL COST TO THE OWNER. 11. INSTALL HORIZONTAL PIPING WITH MINIMUM PITCH OF ONE INCH IN 40 FEET. 12. INSTALL SLEEVES WHERE VERTICAL PIPING PASSING THROUGH ANY SLAB.

# GENERAL NOTES

## DESIGN CRITERIA

- A. LIGHT HAZARD WATER DENSITY = 0.10 GPM/SQ. FT. DESIGN AREA = 1500 SQ. FT. MAXIMUM SPRINKLER COVERAGE = 225 SQ. FT.
- B. ORDINARY HAZARD GROUP 1 WATER DENSITY = 0.15 GPM/SQ. FT. DESIGN AREA = 1500 SQ. FT. MAXIMUM SPRINKLER COVERAGE = 130 SQ. FT.
- C. ORDINARY HAZARD GROUP 2 WATER DENSITY = 0.20 GPM/SQ. FT. DESIGN AREA = 1500 SQ. FT. MAXIMUM SPRINKLER COVERAGE = 130 SQ. FT.

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PROFESSIONAL CERTIFICATION	DRAFT. Information shown is based on 30 percent	BK	PRELIMINARY ENGINEERING	$\frac{1040}{1000}$
I hereby certify that these	nreliminary engineering plans and may be subject to	Z		1-1042-0220
approved by me, and that I	further revision pending refinements to the plans during	DP DP	PURPLE LINE LIGHT RAIL	DRAWING NO.
am a duly licensed professional engineer under the laws of the State of Man laws	the completion of the design phase. Any reliance upon	LJ	LYTTONSVILLE YARD FACILITY	FP-L01
the state of Maryland	of its draft status	Ċ	PROTECTION NOTES SYMBOLS & ABBREVIATIONS	SHEET NO.
License No. Expiration Date		АРРБ	DATE: DECEMBER 2013 SCALE: NTS	<u>162</u> OF <u>443</u>

FP01	FIRE PROTECTION - GENERAL NOTES, SYMBOLS AND ABRREVIATION
FP02	DESIGN CRITERIA AND HAZZARD CLASSIFICATIONS
FP03	ZONE LAYOUT PLAN
FP04	YARD LEVELFLOOR PLAN - 1
FP05	YARD LEVELFLOOR PLAN - 2
FP06	FIRST FLOOR PLAN
FP07	SECOND FLOOR PLAN
FP08	WASH BUILDING
FP09	DETAILS AND SCHEDULE
FP10	FIRE PROTECTION RISER
FP11	FIRE PROTECTION EQUIPMENT SCHEDULE
FP12	FIRE PROTECTION DETAILS

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	YARD	STOF	RAGE					
ROOM NO.	AREA/LOCATION	SYSTEM	OCCUPANCY CLASSIFICATION	DENSITY GPM/SF	ZONE			
100	UNISEX TOILET ROOM	WET	LH	0.10	2			
101	LIGHT RAIL BREAK ROOM	WET	LH	0.10	2			
102	LIGHT RAIL OFFICE	WET	LH	0.10	2			
103	LIGHT RAIL MAINTENANCE STORAGE	WET	OHGR-1	0.15	2			
104	CLEANING SUPPLY STORAGE	WET	OHGR-1	0.15	2			
105	ELECTRICAL ROOM	WET	OHGR-1	0.15	2			
106	BULK FLUID STORAGE	WET	OHGR-2	0.20	2			
107	UNISEX TOILET ROOM	WET	LH	0.10	3			
108	UNISEX TOILET ROOM	WET	LH	0.10	3			
109	CORRIDOR	WET	LH	0.10	3			
110	CLEANING BREAK ROOM	WET	LH	0.10	3			
111	CLEANING OFFICE	WET	LH	0.10	3			
112	CORRIDOR	WET	LH	0.10	3			
113	WATER SERVICE	WET	OHGR-1	0.15	3			
114	ELECTRICAL SERVICE	WET	OHGR-1	0.15	3			
115	EMERGENCY ELECTRICAL SERVICE	WET	OHGR-1	0.15	3			
116	ELEVATOR LOBBY	WET	OHGR-1	0.15	3			
117	WASH BAY	WET	OHGR-1	0.15	3			
118	ELECTRICAL	WET	OHGR-1	0.15	3			
119	COMM. CLOSET	WET	OHGR-1	0.15	3			
S1	STAIR #1 AT YARD LEVEL	WET	OHGR-1	0.15	3			

<u>ZONE #4, 5 & 6</u>

HAZARD / OCCUPANCY CLASSIFICATION OH-GP-I DENSITY = 0.15 GPM/SQ. FT SYSTEM = DRY

<u>NOTE</u>:

- ONLY UPRIGHT SPRINKLERS SHALL BE INSTALLED ON DRY PIPE.
- NOT MORE THAN 750 GAL. SYSTEM CAPACITY SHALL BE CONTROLLED BY ONE DRY PIPE VALVE.
- GRIDDED DRY PIPE SYSTEM SHALL NOT BE INSTALLED.
- DRY PIPE VALVES SHALL BE PROVIDED WITH A LISTED QUICK-OPENING DEVICE WHERE CAPACITY EXCEEDS 500 GAL.
- A SOFT DISC GLOBE OR ANGIE VALVE SHALL BE INSTALLED IN THE CONNECTION BETWEEN DRY PIPE SPRINKLER RISER AND QUICK-OPENING DEVICE.
- A CHECK VALVE SHALL BE INSTALLED BETWEEN THE QUICK-OPENING DEVICE AND THE INTERMEDIATE CHAMBER OF THE DRY PIPE VALVE.
- A LISTED ANTI-FLOODING DEVICE SHALL BE INSTALLED IN THE CONNECTION BETWEEN THE DRY PIPE SPRINKLER RISER AND THE QUICK-OPENING DEVICE.



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ROOM NO.	AREA/LOCATION	SYSTEM	OCCUPANCY CLASSIFICATION	DENSITY GPM/SF	ZONE
S1	STAIR #1 AT DECK LEVEL/ FIRST FLOOR	WET	OHGR-1	0.15	8
S2	STAIR #2 AT DECK LEVEL/ FIRST FLOOR	WET	OHGR-1	0.15	8
200	VESTIBULE	WET	LH	0.10	8
201	LOBBY	WET	LH	0.10	8
202	I.T.	WET	OHGR-1	0.15	8
203	CORRIDOR	WET	LH	0.15	8
204	CORRIDOR	WET	LH	0.20	8
205	ADMIN./ COPY	WET	LH	0.10	8
206	TRANS. SUPERVISOR	WET	LH	0.10	8
207	ASST. TRANS. SUPERVISOR	WET	LH	0.10	8
208	WORK BLOCK COORDINATOR	WET	LH	0.10	8
209	TEAM ROOM	WET	LH	0.10	8
210	UNISEX TOILET ROOM	WET	LH	0.10	8
211	ELECTRICAL	WET	OHGR-1	0.15	8
212	MECHANICAL	WET	OHGR-1	0.15	8
213	EQUIPMENT	WET	OHGR-1	0.15	8
214	DISPATCH	WET	OHGR-1	0.10	8
215	CORRIDOR	WET	LH	0.10	8
216	CORRIDOR	WET	LH	0.10	8
217	TEAM ROOM	WET	LH	0.10	8
218	YARD MASTER	WET	LH	0.10	8
219	INCIDENT ROOM	WET	LH	0.10	8
220	SUPERVISOR	WET	LH	0.10	8
221	UNISEX TOILET ROOM	WET	LH	0.10	8
222	OFFICE	WET	LH	0.10	8
223	TECHNICIANS	WET	LH	0.10	8
224	CONTROL ROOM	WET	OHGR-1	0.15	8
225	CORRIDOR	WET	LH	0.10	8
226	EQUIPMENT	WET	OHGR-1	0.15	8
227	UNISEX TOILET ROOM	WET	LH	0.10	8
228	CORRIDOR	WET	LH	0.10	8
229	QUIET ROOM	WET	LH	0.10	8
230	VESTIBULE	WET	LH	0.10	8
231	CORRIDOR	WET	LH	0.10	8
232	WOMEN'S TOILET ROM	WET	LH	0.10	8
233	LOCKERS	WET	LH	0.10	8
234	MEN'S TOILET ROOM	WET	LH	0.10	8
235	UPERATOR BREAK ROOM/ KITCHENETTE	WET	LH	0.10	8
236	JANITOR CLOSET	WET	LH	0.10	8
237	BUILDING   MAINTENANCE	WET	OHGR-1	0.15	8

	SECOND FLOOR							
ROOM NO.	AREA/LOCATION	SYSTEM	OCCUPANCY CLASSIFICATION	DENSITY GPM/SF	ZONE			
S1	STAIR #1 AT SECOND FLOOR	WET	OHGR-1	0.15	9			
S2	STAIR #2 AT SECOND FLOOR	WET	OHGR-1	0.15	9			
300	ELEVATOR LOBBY	WET	OHGR-1	0.15	9			
301	CORRIDOR	WET	LH	0.10	9			
302	CORRIDOR	WET	LH	0.10	9			
303	UNISEX TOILET ROOM	WET	LH	0.10	9			
304	ADMIN./ COPY	WET	LH	0.10	9			
305	LIGHT RAIL DEPUTY DIRECTOR	WET	LH	0.10	9			
306	LIGHT RAIL DIRECTOR	WET	LH	0.10	9			
307	INCIDENT ROOM	WET	OHGR-1	0.15	9			
308	Ι.Τ.	WET	OHGR-1	0.15	9			
309	CONFERENCE	WET	LH	0.10	9			
310	CORRIDOR	WET	LH	0.10	9			
311	ELECTRICAL	WET	OHGR-1	0.15	9			
312	MECHANICAL	WET	OHGR-1	0.15	9			
313	UNISEX TOILET ROOM	WET	LH	0.10	9			
314	UNISEX TOILET ROOM	WET	LH	0.10	9			
315	CORRIDOR	WET	LH	0.10	9			
316	CORRIDOR	WET	LH	0.10	9			
317	JANITOR CLOSET	WET	LH	0.10	9			
318	STORAGE	WET	OHGR-1	0.15	9			
319	CLASS ROOM	WET	LH	0.10	9			
320	TRAINING OFFICE	WET	LH	0.10	9			

PENTHOUSE						
ROOM NO.	AREA/LOCATION	SYSTEM	OCCUPANCY CLASSIFICATION	DENSITY GPM/SF	ZONE	
S1	STAIR #1 AT PENTHOUSE	WET	OHGR-1	0.15	9	

PROFESSIONAL CERTIFICATION

I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland

License No. Expiration Date

DRAFT: Information shown is based on 30 percent preliminary engineering plans and may be subject to further revision pending refinements to the plans during the completion of the design phase. Any reliance upon any of these plans is made with full understanding of its draft status.

-			
SGN	RK		CONTRACT NO.
DE		PRELIMINARY ENGINEERING	T–1042–0220
NN		PURPLE LINE LIGHT BAIL	
DRA	DP		DRAWING NO.
C K		IVITONSVILLE VARD EACILITY	FP-L02
HE	LJ	LITTONSVILLE TAND TAGILITT	
		DESIGN CRITERIA AND HAZARD CLASSIFICATION	SHEEL NO.
APPR		DATE: DECEMBER 2013 SCALE: NTS	163 OF 443











### ZONES LAYOUT PLAN

SCALE: 1'' = 40'

PROFESSIONAL CERTIFICATION	DRAFT: Information shown is based on 30 percent	DESGN	BK
documents were prepared or approved by me, and that I	<i>preliminary engineering plans and may be subject to</i> <i>further revision pending refinements to the plans during</i>	DRAWN	DP
engineer under the laws of the State of Maryland	the completion of the design phase. Any reliance upon any of these plans is made with full understanding	CHECK	LJ
License No. Expiration Date	of its draft status.	APPR	







PROFESSIONAL CERTIFICATION	DRAFT: Information shown is based on 30 percent	N DESGN	BK
documents were prepared or approved by me, and that I am a duly licensed professional	further revision pending refinements to the plans during	DRAWI	DP
engineer under the laws of the State of Maryland	the completion of the design phase. Any reliance upon any of these plans is made with full understanding	CHECK	LJ
License No. Expiration Date	of its draft status.	APPR	

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	<b>X</b>	30 GFC
	KEY PLAN	
	8' <u>0</u> 8' SCALE: <sup>1</sup> /8"=1'-0"	16'
PRELIMINARY ENG	GINEERING	CONTRACT NO. T-1042-0220
PURPLE LINE LI	GHT RAIL	DRAWING NO.
LYTTONSVILLE YAF YARD LEVEL FIRE PRO	TECTION PLAN	SHEET NO.







ROOF	STAIR	PLAN	- F	FIRE	PROT
		SCALE:	<sub>=8∕ ا</sub>	1′=0′	,

- E H \

ZONE#9

PROFESSIONAL CERTIFICATION	DRAFT: Information shown is based on 30 percent	N DESGN	BK
documents were prepared or approved by me, and that I	further revision pending refinements to the plans during	DRAWN	DP
engineer under the laws of the State of Maryland	<i>the completion of the design phase. Any reliance upon any of these plans is made with full understanding</i>	CHECK	LJ
License No. Expiration Date	of its draft status.	APPR	

KEY PLAN		2 – Purple Line Light Rail
8' <u>0</u> 8' SCALE:'/8"=1'-0"	16′	rojects\104
PRELIMINARY ENGINEERING PURPLE LINE LIGHT RAIL		Current F
LYTTONSVILLE YARD FACILITY OFFICE SECOND FLOOR PLAN-FIRE PROTECTION DATE: DECEMBER 2013 SCALE: 1/8" = 1'-0"	FP-L07 SHEET NO. 168 OF 443	pw:\\00 - 11/19/201

V

# **TECTION**

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	FHV-	4"FIRE MAIN INSULATED & HEAT TRACED @ 4 WATTS / FOOT
	CONTROL VALVE ZONE-7	
		<ul> <li>HAZARD/OCCUPANCY CLASSIFIC OH-GP-I</li> </ul>

## WASH BUILDING FLOOR PLAN

SCALE: 1/8"=1'-0"

	PROFESSIONAL CERTIFICATION	DRAFT: Information shown is based on 30 percent	DESGN	BK
	documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland	<i>further revision pending refinements to the plans during</i>	DRAWN	DP
		the completion of the design phase. Any reliance upon any of these plans is made with full understanding	CHECK	LJ
	License No. Expiration Date	of its draft status.	APPR	









License No. Expiration Date

DESGN	BK
DRAWN	DP
CHECK	LJ
APPR	