

DRAWING INDEX

EXIST. CB-3 ELEV. 97.41'. WATER AT 90.54'

INSTALL STORM DRAIN

CONTRACTOR SHALL

CONFIRM LOCATION OF

EXIST. ROOF DRAIN LEADER

- SAW CUT EXIST. ASPHALT

EXIST. PAVEMENT TO BE REMOVED, TYP.

SILT FENCE OR

BARRIER

REMAIN C.I.R.S.

\\ REMAIN

APPROVED SEDIMENT

- EXIST. UTILITY POLE TO

EXIST. ELEC. TRANS. TO

EXIST. ELEC. BOX TO REMAIN

EXIST. BOLLARDS TO REMAIN

TITLE

EXIST. GAS METER TO REMAIN

INLET PROTECTION FOR EACH CATCH BASIN PER **EROSION AND SEDIMENT** CONTROL NOTE #6

EXIST MH-1

	1.	C-100	EXISTING CONDITIONS SITE PLAN
	2.	C-101	PROPOSED CONDITIONS SITE PLAN
	3.	DOT-101	PROPOSED CONDITIONS DOT SITE PL
/	4.	C-501	SITE DETAILS
`\	5.	C-502	SITE DETAILS
	6.	619-010	NYSDOT STANDARD SHEET
	7.	619-407	NYSDOT STANDARD SHEET

EROSION & SEDIMENT CONTROL NOTES

- 1. ALL SILT FENCES SHALL BE IN PLACE AT LOCATIONS INDICATED IN ACCORDANCE WITH THE DETAILS BEFORE COMMENCEMENT OF ANY DISTURBANCE OF EXISTING GROUND SURFACE.
- 2. ALL FINAL EXPOSED CUT AND FILL EARTHWORK SURFACES SHALL BE COVERED WITH MIN. 4" OF TOPSOIL. HYDROSEED PER SPECIFICATION, UNLESS NOTED TO BE COVERED BY PAVEMENT, OR STRUCTURES.

NYSDOT STANDARD SHEET

- 3. ALL AREAS UNWORKED FOR MORE THAN 14 DAYS MUST BE SEEDED WITH ANNUAL RYE GRASS AND PROTECTED WITH STRAW MULCH.
- 4. AFTER EVERY STORM EVENT IN EXCESS OF 1/2" RAINFALL, INSPECT ALL SILT FENCES. REMOVE
- ACCUMULATED MATERIAL, FILL ERODED AREAS AND RESET SILT FENCES.
- 5. ENCLOSE ALL STOCKPILES WITH SILT FENCE.
- 6. STORM DRAIN INLET PROTECTION SHALL BE INSTALLED ON ALL EXISTING CATCH BASINS ON SITE. INLET PROTECTION SHALL BE INSTALLED IN ACCORDANCE WITH THE "NEW YORK STATE STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL" SECTION 5.57 "STANDARDS AND SPECIFICATIONS FOR STORM DRAIN INLET PROTECTION"
- 7. EROSION CONTROL MEASURES SHALL CONFORM WITH THE REQUIREMENTS OF NEW YORK STATE STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL AND THE SITE SPECIFIC STORMWATER POLLUTION PREVENTION PLAN (SWPPP) FOR THIS PROJECT.
- 8. THE CONTRACTOR SHALL PROVIDE A DUMPSTER ON-SITE FOR LEGAL DISPOSAL OF DEBRIS, GARBAGE
- 9. SILT FENCES AND/OR SILT SOCKS SHALL REMAIN IN PLACE UNTIL A STABLE GROWTH OF TURF IS PRESEN AT ALL DISTURBED AREAS.
- 10. THE CONTRACTOR SHALL PROVIDE AN APPROVED SECONDARY CONTAINMENT SYSTEM FOR ALL FUEL AND PETROLEUM PRODUCTS TEMPORARILY STORED ON THE SITE.
- 11. ANCHORED STABILIZED CONTROL MATTING SHALL BE INSTALLED IN ACCORDANCE WITH "NEW YORK STATE STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL" SECTION 4.5

"STANDARDS AND SPECIFICATIONS FOR ANCHORED STABILIZATION MATTING"

OR OVER UTILITY INSTALLATIONS THAT ARE WITHIN 24 INCHES OF THE SURFACE.

- 12. ALL AREAS OF EXIST. IMPERVIOUS SURFACE THAT WILL BE REVERTED TO PERVIOUS SHALL IMPLEMENT SOIL RESTORATION IN ACCORDANCE WITH THE FOLLOWING PROCEDURE:
 - APPLY 3 INCHES OF COMPOST OVER SUBSOIL - TILL COMPOST INTO SUBSOIL TO A DEPTH OF AT LEAST 12 INCHES USING A CAT-MOUNTED RIPPER, TRACTOR-MOUNTED DISC, OR TILLER, MIXING, AND CIRCULATING AIR AND COMPOST INTO
 - ROCK-PICK UNTIL UPLIFTED STONE/ROCK MATERIALS OF FOUR INCHES AND LARGER SIZE ARE CLEANED OFF THE SITE
 - APPLY TOPSOIL TO A DEPTH OF 6 INCHES - VEGETATE AS REQUIRED BY APPROVED PLAN TILLING (STEP 2 ABOVE) SHOULD NOT BE PERFORMED WITHIN THE DRIP LINE OF ANY EXISTING TREES

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REVISIONS

DESCRIPTION

CONSTRUCTION

0 2/12/2024 ISSUED FOR PERMITS AND

REV. DATE



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	DATE:	2/7/2024	ENG. BY:	AMD / RAS
	PROJ. NO:	22-960	CHK'D BY:	ES

446 SARATOGA ROAD LLC 446 SARATOGA RD SCHENECTADY, NY, 12302

DRAWING TITLE **EXISTING CONDITIONS** SITE PLAN

446 SARATOGA ROAD GLENVILLE, NY, 12302

LEGEND

 $--[3\overline{64}]$ ----- EXIST. MINOR CONT. - - $\overline{365}$ - - - EXIST. MAJOR CONT. PROP. CONTOUR --- PROPERTY LINE SILT FENCE - GAS ---- GAS ---- UNDERGROUND GAS LINE — UG ELEC — UNDERGROUND ELECTRIC LINE UNDERGROUND SEWER LINE —ST ——ST — UNDERGROUND STORM WATER LINE OVERHEAD UTILITY WIRE CHAIN LINK FENCE TEST PIT LOCATION PERC. TEST LOCATION 320.00' PROPOSED SPOT ELEVATION

Q UTILITY POLE GAS VALVE

MONITOR WELL MANHOLE

WATER VALVE WATER HYDRANT

SEWER MANHOLE CATCH BASIN

E.V. CHARGE STATION

TEST PIT AND INFILTRATION TEST LOG

ILSI FII A		ILITATION ILSI LOG
TEST PIT TP-101	0"-10" 10"-26"	TOPSOIL - DRY, BROWN, LOAMY FINE SAND, FRIABLE DRY, LIGHT BROWN/TAN, FINE SAND, FRIABLE TO FIRM, ORANGE/BROWN FINE SAND
	26"-72"	DRY, BROWN/GRAY, MEDIUM SAND, FRIABLE
TEST PIT TP-102	0"-6" 6"-23"	TOPSOIL - DRY, BROWN/DARK BROWN, FRIABLE, LOAMY SAND DRY, LIGHT BROWN, FRIABLE TO FIRM, FINE SAND, PIECES OF ASPHALT PRESENT AT 8" AND 12"
	23"-43" 43"-71"	DRY, TAN, FRIABLE FINE SAND DRY, LIGHT BROWN/TAN, FINE-MEDIUM SAND
TEST PIT TP-103	0"-11" 11"-27"	TOPSOIL - DRY, BROWN, FRIABLE, LOAMY SAND DRY, LIGHT ORANGE/BROWN, FINE SAND, FRIABLE, PIECES OF ASPHALT WITHIN 12"
	27"-36" 36"-76"	DRY, LIGHT GRAY, FINE SAND, FRIABLE TO FIRM DRY, FRIABLE MEDIUM SAND W/ VARIABLE COLORS (REDDISH TAN/LIGHT BROWN AND LIGHT BROWN/ORANGE/BLACK AND WHITE)
TEST PIT TP-104	0"-4" 4"-50"	DRY, BROWN LOAMY SAND, FRIABLE DRY, LIGHT BROWN, FRIABLE, FINE-MEDIUM SAND, PIECES OF ASPHALT WITHIN 24"

NO MOTTLES OR EVIDENCE OF GROUNDWATER OR BEDROCK ENCOUNTERED IN ANY TEST PIT. TEST PITS WERE OBSERVED BY ERIK SANDBLOM, PE OF SRA ENGINEERS ON 8/24/2022

PERCOLATION TEST PT-1 STABILIZED PERCOLATION RATE = 1.5min./inch TEST AT ±36" BELOW EXISTING GRADE PERCOLATION TEST PT-2 STABILIZED PERCOLATION RATE = 7.0min./inch

TEST AT ±32" BELOW EXISTING GRADE STABILIZED INFILTRATION RATE = 24inch/hour INFILTRATION TEST IT-3 TEST AT ±32" BELOW EXISTING GRADE

PERCOLATION TEST WAS PERFORMED BY SRA ENGINEERS ON 8/24/2022

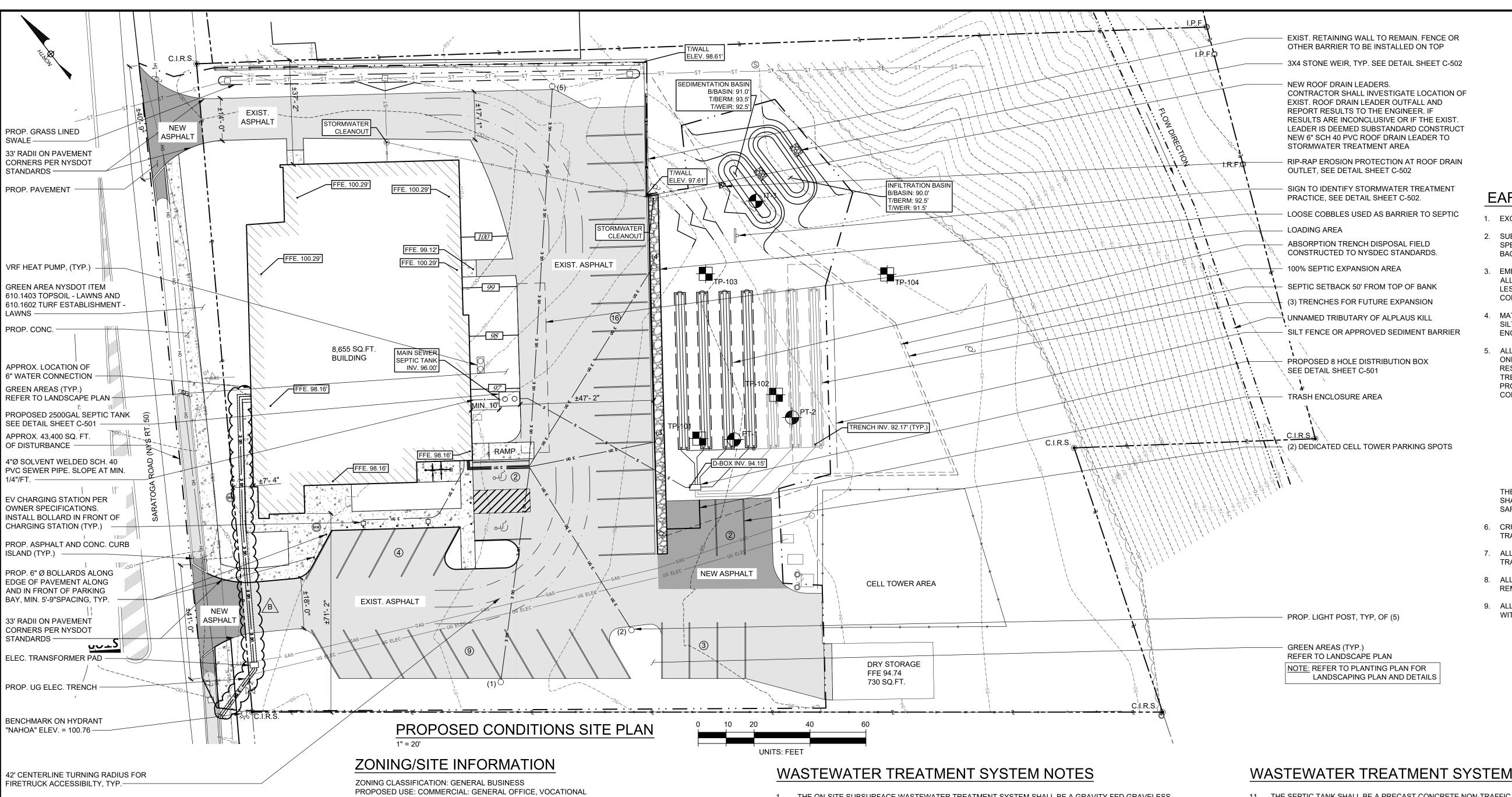
GENERAL NOTES

- PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL STAKE OUT ALL IMPROVEMENTS AND VERIFY GRADES AND ELEVATIONS. AND DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE
- ENGINEER. 2. CONTRACTOR SHALL STRIP ALL TOPSOIL IN AREAS TO BE RE-GRADED AND STOCKPILED FOR LATER USE.
- 3. THE EXACT LOCATIONS OF ALL UTILITIES SHALL BE DETERMINED BY THE CONTRACTOR IN THE FIELD. THE CONTRACTOR SHALL CONDUCT OPERATIONS AND TAKE THE NECESSARY PRECAUTIONS SUCH THAT INTERFERENCE WITH OR DAMAGE TO EXISTING UTILITIES IS PREVENTED. THE CONTRACTOR SHALL COORDINATE WITH "DIG-SAFE" TO HAVE ALL UNDERGROUND UTILITIES LOCATED PRIOR TO COMMENCING EXCAVATION WORK. IF THE CONTRACTOR DAMAGES AN EXISTING UTILITY, HE SHALL COMMENCE WORK TO REPAIR THAT SERVICE IMMEDIATELY AND ALL COSTS ASSOCIATED WITH SUCH REPAIR SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
- 4. THE CONTRACTOR SHALL COMPLY WITH ALL REQUIRED PERMITS AND ASSOCIATED CONDITIONS.
- 5. CONTRACTOR SHALL BE RESPONSIBLE FOR DEWATERING AND MAINTENANCE OF SURFACE DRAINAGE
- 6. CONTRACTOR IS RESPONSIBLE FOR EMPLOYING AND MAINTAINING ALL TRAFFIC CONTROL AND SAFETY MEASURES DURING CONSTRUCTION.

SURVEY NOTES

DURING THE DURATION OF THE WORK.

- 1. BASE MAPPING DEVELOPED FROM SURVEY DATA FROM "TOPOGRAPHIC SURVEY OF LANDS OF GENESIS GLENVILLE, NY, LLC. DEED BOOK 2010, PAGE 576 - TAX I.D. NO. 15.16-1-29. NO. 446 SARATOGA ROAD MUNICIPALITY OF GLENVILLE SCHENECTADY COUNTY, NEW YORK" BY NORTHEAST LAND SURVEY & LAND DEVELOPMENT CONSULTANTS, P.C., DATED JULY 6, 2022 (PROJECT NUMBER 22/027).
- 2. REFER TO ORIGINAL SURVEY FOR ADDITIONAL NOTES.
- 3. THIS SHALL NOT BE USED AS A BOUNDARY OR CERTIFIED SURVEY OF THE PROPERTY.
- 4. TOPOGRAPHIC CONTOURS OUTSIDE OF THE PROPERTY BOUNDARIES WERE ESTIMATED BASED UPON REVIEW OF 20-FOOT CONTOURS FROM TOPOGRAPHIC BASE MAPPING PROVIDED BY WARREN COUNTY GIS PROGRAM.



EARTHWORK NOTES

- EXCAVATION SHALL BE TO ELEVATIONS INDICATED WITH A TOLERANCE OF PLUS/MINUS 1".
- 2. SUBBASE COURSE MATERIAL SHALL CONFORM TO NYS DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS SECTION 304, TYPE 2 AND SHALL CONFORM TO MIN 95% MODIFIED PROCTOR DENSITY. BACKFILL MATERIAL SHALL BE COMPACTED ON SITE SOIL MATERIAL
- 3. EMBANKMENT FILL SHALL CONFORM WITH ALL REQUIREMENTS OF NYSDOT SPEC. SECTION 203. MAXIMUM ALLOWABLE LOOSE LIFTS FOR EMBANKMENTS SHALL BE 12 INCH AND SHALL BE COMPACTED TO NOT LESS THAN 95% OF THE MAXIMUM DENSITY AS ESTABLISHED THROUGH THE STANDARD PROCTOR COMPACTION TEST PER ASTM D698.
- MATERIAL STOCKPILES, IF REQUIRED, SHALL BE LOCATED WHOLLY WITHIN THE WORK AREA. ADDITIONAL SILT FENCES SHALL BE PROVIDED AT THE BASE OF ALL STOCKPILES AS DIRECTED IN THE FIELD BY THE ENGINEER.
- ALL TRENCHES AND OTHER EXCAVATION SIDE SLOPES INDICATED ON THE DRAWINGS ARE DIAGRAMMATIC ONLY AND ARE NOT INTENDED TO INDICATE A STABLE EXCAVATION SLOPE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE ADEQUACY AND STABILITY OF ALL EXCAVATION SLOPES, SHEETING, SHORING, TRENCH BOXES, AND ANY OTHER MEANS REQUIRED FOR A SAFE WORK ENVIRONMENT AND FOR PROTECTION OF ADJACENT ROADWAYS AND OTHER STRUCTURES. ALL EXCAVATION WORK SHALL COMPLY WITH THE REQUIREMENTS OF THE FOLLOWING REGULATORY AGENCIES:
 - -SUBPART 23-4, "EXCAVATION OPERATIONS", OF NEW YORK DEPARTMENT OF LABOR INDUSTRIAL CODE RULE 23.
 - -SUBPART P, "EXCAVATIONS" OF THE UNITED STATES DEPARTMENT OF LABOR OSHA REGULATIONS FOR CONSTRUCTION.
 - -ALL OTHER MUNICIPAL, COUNTY, STATE OR FEDERAL AGENCIES, REGULATIONS OR LAWS PERTAINING TO EXCAVATION SAFETY AS MAY APPLY AT THE WORK SITE.
- THE MORE STRINGENT PROVISION IN EACH OF THE ABOVE CODES SHALL APPLY. THESE PROVISIONS SHALL BE CONSIDERED MINIMUM REQUIREMENTS AND SHALL BE INCREASED IF NECESSARY TO PROVIDE SAFE WORKING CONDITIONS.
- CRUSHED STONE, WHERE CALLED FOR ON THE DRAWINGS, SHALL CONFORM TO NYS DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS SECTION 703-02, SIZE DESIGNATION 2.
- 7. ALL NEW GRADES SHALL BE BLENDED SMOOTHLY WITH EXISTING GRADES TO PROVIDE A SMOOTH TRANSITION BETWEEN NEW GRADING AND EXISTING SURFACES TO REMAIN.
- 8. ALL SILT FENCES SHALL BE INSTALLED PRIOR TO DISTURBANCE OF EXISTING SITE FINISHES AND SHALL REMAIN IN PLACE UNTIL A STABLE GROWTH OF TURF IS ESTABLISHED.
- 9. ALL DISTURBED AREAS NOT COVERED WITH SITE IMPROVEMENTS OR LANDSCAPING SHALL BE COVERED WITH 3" OF TOPSOIL AND SEEDED TO ESTABLISH A DENSE GROWTH OF TURF.

MINIMUM REQUIRED AREA: 40,000 SQ. FT.

TAX MAP NO. 15.16-1-29

LEGEND

----- $3\overline{64}$ ----- EXIST. MINOR CONT

 $---\overline{365}---$ EXIST. MAJOR CONT.

— — SILT FENCE

GUARD RAIL

---- SETBACK

320.00'

Q

— GAS — GAS — UNDERGROUND GAS LINE

UNDERGROUND ELECTRIC LINE

UNDERGROUND STORM WATER LINE

OVERHEAD UTILITY WIRE

CHAIN LINK FENCE

UTILITY POLE

GAS VALVE

WATER VALVE

WATER HYDRANT

SEWER MANHOLE

E.V. CHARGE STATION

CATCH BASIN

TEST PIT LOCATION

PERC. TEST LOCATION

PROPOSED SPOT ELEVATION

MONITOR WELL MANHOLE

-----s----- UNDERGROUND SEWER LINE

LOT SIZE: 1.92 ACRES (83.635 SQ. FT.)

TOTAL PROPOSED DISTURBED AREA: +/- 43,400 SQ. FT. PROPOSED NEW BUILDING AREA: 155 SQ. FT., ±2% OF EXIST. STRUCTURE

TOTAL ADDITIONAL IMPERVIOUS AREA: (-7,732) SQ. FT. TOTAL RESULTING IMPERVIOUS AREA OVER ENTIRE SITE: 30,965 SQ FT. (37.0%)

PARKING REQUIREMENTS: PARKING SPACES REQUIRED: 24 (SEE SHEET PB-100 FOR MORE DETAILS)

PARKING SPACES PROVIDED: 34 PLUS TWO (2) DEDICATED CELL TOWER SPACES SETBACK REQUIREMENTS

	OLIDAORIAL	QUITLIVILIVIO	
<u>IMENSION</u>	REQUIRED	EXISTING	PROPOSED
RONT	35 FT.	7.3 FT.	7.3 FT.
IDE YARD	30 FT.	37 FT.	37 FT.
EAR YARD	40 FT.	215 FT.	215 FT.
IEIGHT (MAX)	35 FT.	25 FT.	25 FT.
VATERCOURSE BUF	FER		
TOP OF BANK)	50FT.	>50 FT.	>50 FT.
OVERAGE (MAX)	30%	11.0%	11.3%

STORMWATER SYSTEM NOTES

- 1. MAXIMUM DISTURBED SITE AREA FOR THIS PROJECT EXCEEDS ONE ACRE. THEREFORE THE PROJECT SHALL SEEK COVERAGE UNDER THE NYSDEC SPDES GENERAL PERMIT FOR STORMWATER DISCHARGES FROM CONSTRUCTION ACTIVITY AND REQUIRES A STORMWATER PERMIT FROM THE TOWN OF GLENVILLE,
- 2. THE BASIS OF DESIGN FOR THE STORMWATER TREATMENT SYSTEM AND CALCULATIONS ARE PROVIDED IN THE SITE SPECIFIC STORMWATER POLLUTION PLAN (SWPPP) PREPARED FOR THE PROJECT. REFER TO THE SWPPP FOR ADDITIONAL REQUIREMENTS.
- 3. INFILTRATION BASIN SEED MIX: VERMONT WET MEADOW AND DETENTION BASIN MIX OR EQUAL.

<u>SPECIES COMPOSITION:</u> SWITCHGRASS (PANICUM VIRGATUM), VIRGINIA WILD RYE (ELYMUS VIRGINICUS), RED FESCUE (FESTUCA RUBRA), FOX SEDGE (CAREX VULPINOIDEA), WOOLGRASS (SCIRPUS CYPERINUS), GREEN BULRUSH (SCIRPUS ATROVIRENS), NODDING BUR-MARIGOLD (BIDENS CERNUA), BONESET (EUPATORIUM PERFOLIATUM), JOE-PYE WEED (EUPATORIADELPHUS MACULATUS), SOFT RUSH (JUNCUS EFFUSUS), SENSITIVE FERN (ONOCLEA SENSIBILIS), BLUE VERVAIN (VERBENA HASTATA), NEW ENGLAND ASTER (SYMPHYOTRICHUM NOVA-ANGLIAEA).

APPLICATION RATE: 35 LBS/ACRE

- 4. INFILTRATION BASIN AND SWALE MAINTENANCE: PERIODICALLY MAINTAIN THE INFILTRATION BASIN AND SWALES IN ACCORDANCE WITH THE FOLLOWING: - REMOVE ANY ACCUMULATED SEDIMENT, TRASH, AND DEBRIS
- REMOVE DEAD VEGETATION, TRIM LIVE VEGETATION TO A MAXIMUM HEIGHT OF 12" AND REMOVE WEEDS - REPAIR INLET EROSION/DAMAGE - LOOSEN, AERATE, OR REPLACE SOILS IN THE INFILTRATION BASIN IF IT DOES NOT INFILTRATE WITHIN 48 HOURS
- 5. AN ADDITIONAL TEST PIT SHALL BE DUG BY THE CONTRACTOR AND ASSESSED BY SRA ENGINEERS PRIOR TO CONSTRUCTION OF THE SEDIMENTATION AND INFILTRATION BASINS. THE PURPOSE OF THIS TEST PIT IS TO IDENTIFY DEPTH OF GROUNDWATER AND CONFIRM THE MINIMUM 4' SEPARATION TO GROUNDWATER WILL BE MET.

THE ON-SITE SUBSURFACE WASTEWATER TREATMENT SYSTEM SHALL BE A GRAVITY FED GRAVELESS GEOTEXTILE SAND FILTERS IN A TRENCH CONFIGURATION UTILIZING ADVANCED ENVIRO-SEPTIC (AES) PIPE AS MANUFACTURED BY PRESBY ENVIRONMENTAL, INC., WHITEFIELD, NH. THE BASIS OF DESIGN FOR THE SYSTEM IS AS FOLLOWS:

720 GPD (48 x 15)

(1,500 gpd MAX FOR FUTURE EXPANSION)

DESIGN WASTEWATER FLOW RATE

NATIVE PERCOLATION RATE	6-7 min/in
DESIGN PERCOLATION RATE	6-7 min/in
SEPTIC TANK MIN. CAPACITY	2,500 gal
SEPTIC TANK CAPACITY PROVIDED	2,500 gal (NO SPAS OR GARBAGE GRI
NATIVE APPLICATION RATE	1.00 gal/day/sf
PRESBY MANUAL MIN TRENCH LENGTH	250 ft
NUMBER OF TRENCHES @ 61' (250 ft / 61' = 4.09)	5 TRENCHES @ 61'
TOTAL AES PIPE (61 ft - 1 ft) x 5 x 2	600 ft
MIN LENGTH AES PIPE PER NYSDEC MANUAL	360 ft
(720 gpd / 1.0 sf/gpd / 2)	
AES PIPE LENGTH PROVIDED (55 ft - 1 ft) x 4 x 2	432 ft
PLUMBING FIXTURES	MAX. 1.6 Gal./Flush WATER CLOSET

- THE AES PIPE WASTEWATER TREATMENT SYSTEM SHALL BE INSTALLED BY A CONTRACTOR CERTIFIED BY PRESBY ENVIRONMENTAL, INC. TO PERFORM RESIDENTIAL SYSTEM INSTALLATIONS IN NEW YORK STATE.
- ALL WASTEWATER TREATMENT SYSTEM COMPONENTS SHALL BE IN STRICT ACCORDANCE WITH THE SYSTEM DESIGN INFORMATION INDICATED ON THESE DRAWINGS, ADVANCED ENVIRO-SEPTIC (AES) INSTALLATION GUIDELINES AND WITH ALL N.Y.S. DEP'T. OF HEALTH AND TOWN OF GLENVILLE REQUIREMENTS.
- THE DISCHARGE OF WASTE FROM GARBAGE GRINDERS, SPA TUBS, SUMP PUMPS, ROOF DRAINS, WATER TREATMENT SYSTEM BACKWASH AND NON-CONSERVING WATER FIXTURES IS PROHIBITED.
- FILL OVER THE ABSORPTION TRENCHES SHALL BE CLEAN SANDY LOAM, FREE OF ORGANIC MATTER AND STONES LARGER THAN 2 IN. IN ANY DIMENSION.
- NO HEAVY EQUIPMENT OR VEHICULAR TRAFFIC SHALL BE ALLOWED WITHIN THE LIMITS OF THE ABSORPTION FIELD AFTER FILL MATERIAL HAS BEEN PLACED BOTH DURING OR AFTER CONSTRUCTION.
- PLACEMENT OF BACKFILL, AES PIPE AND FILTER FABRIC SHALL BE AS SHOWN.
- TOPSOIL AND SEED THE ABSORPTION FIELD AREA AND ALL OTHER DISTURBED AREAS IMMEDIATELY AFTER CONSTRUCTION.
- 9. ALL PLUMBING WORK SHALL BE COMPLETED IN STRICT ACCORDANCE WITH ALL REQUIREMENTS OF THE BUILDING CODE OF NEW YORK STATE.
- UPON COMPLETION OF CONSTRUCTION THE CONTRACTOR SHALL PREPARE A MAP OF AS-BUILT CONDITIONS INDICATING A MINIMUM OF TWO TIE DIMENSIONS FROM ADJACENT CORNERS OF THE BUILDING TO THE SEPTIC TANK INLET AND OUTLET COVERS, THE DISTRIBUTION BOX AND EACH CORNER OF THE LEACH FIELD.

WASTEWATER TREATMENT SYSTEM NOTES (CONT.)

- 11. THE SEPTIC TANK SHALL BE A PRECAST CONCRETE NON-TRAFFIC TYPE UNIT AS MANUFACTURED BY THE FORT MILLER CO., INC., WITH SANITARY TEES OR BAFFLES AT INLETS AND OUTLETS. AN EFFLUENT FILTER SHALL BE PROVIDED AT THE OUTLET. MINIMUM TANK CAPACITY SHALL BE AS SHOWN. FOR TWO-PIECE TANKS. PROVIDE SEALANT PER MANUFACTURER'S INSTRUCTIONS BETWEEN THE TANK SECTIONS. THOROUGHLY CLEAN JOINT IMMEDIATELY PRIOR TO INSTALLING SEALANT. IF AIR TEMPERATURE IS BELOW 65°F., WARM SEALANT TO A PLIABLE CONDITION. SET TANKS LEVEL ON NO. 2 CRUSHED STONE AS INDICATED.
- 12. FILL OVER AND BETWEEN THE AES TRENCHES SHALL BE CLEAN SANDY LOAM, FREE OF ORGANIC MATTER AND STONES LARGER THAN 2 IN. IN ANY DIMENSION.
- 13. EXISTING SOIL SURFACE WITHIN THE TREATMENT SYSTEM AREA SHALL BE REMOVED OF THE ORGANIC LAYER (GRASS, LEAVES, ETC.) AND BE SCARIFIED PRIOR TO PLACING SANDY LOAM FILL AND SYSTEM SAND TO THE LINES AND GRADES INDICATED.
- 14. SAND FILL SHALL BE CLEAN GRANULAR MATERIAL AND SHALL BE FREE OF ORGANIC MATTER AND STONES LARGER THAN 2 IN. IN ANY DIMENSION. THE IN-PLACE PERCOLATION RATE OF THE SANDY LOAM FILL SHALL BE IN THE RANGE OF 5-10 MIN/IN. AND NOT MORE THAN 3% PASSING THE #200 SIEVE AS VERIFIED BY THE ENGINEER PRIOR TO PLACEMENT OF THE SYSTEM SAND AND CONSTRUCTION OF THE REMAINDER OF THE TREATMENT SYSTEM. SYSTEM SAND MAY BE USED IN PLACE OF SAND FILL.
- 15. PLACEMENT OF SANDY LOAM FILL, SYSTEM SAND AND AES PIPE SHALL BE AS SHOWN AND CARE SHALL BE TAKEN TO AVOID INCLUSION OF FINE GRAINED SOIL AND WASTE MATERIAL IN THE SAND AND PIPING.
- 16. SYSTEM SAND SHALL CONFORM TO THE FOLLOWING PERCENTAGE AND QUALITY RESTRICTIONS: - NO STONES OVER 3/4" IN DIAMETER.
 - 35% MAX. RETAINED BY A #10 SIEVE - 40-90% RETAINED BY A #35 SIEVE
 - MAXIMUM 2% OF TOTAL SAND MAY PASS THROUGH #200 SIEVE
- ASTM C-33 SAND MAY BE ACCEPTABLE PROVIDING NO MORE THAN 2% PASSES A #200 SIEVE.
- 17. TOPSOIL AND SEED THE DISPOSAL FIELD AREA AND ALL OTHER DISTURBED AREAS IMMEDIATELY AFTER CONSTRUCTION.
- 18. NOTIFY THE ENGINEER FOR INSPECTION AT THE FOLLOWING PHASES OF CONSTRUCTION: - COMPLETION OF AES PIPE INSTALLATION, PRIOR TO BACKFILLING WITH THE LATERALS EXPOSED.
- SUBMITTALS: THE CONTRACTOR SHALL SUBMIT MIN. (3) COPIES OF SHOP DRAWINGS AND SUBMITTALS FOR THE FOLLOWING ITEMS FOR REVIEW BY THE ENGINEER. IN LIEU OF (3) HARD COPIES, (1) COPY OF SHOP DRAWINGS AND SUBMITTALS MAY BE TRANSMITTED ELECTRONICALLY. NO FABRICATION OF THESE ITEMS SHALL BE PERMITTED UNTIL THE SUBMITTALS HAVE BEEN REVIEWED AND ACCEPTED.
 - PRECAST CONCRETE SEPTIC TANK SHOP DRAWINGS
 - ADVANCED ENVIRO-SEPTIC (AES) PIPE
 - SYSTEM SAND SIEVE ANALYSIS SAND FILL SIEVE ANALYSIS AND BORROW PIT PERCOLATION TEST RESULTS

REVISIONS DESCRIPTION REV. DATE 0 2/12/2024 ISSUED FOR PERMITS AND CONSTRUCTION



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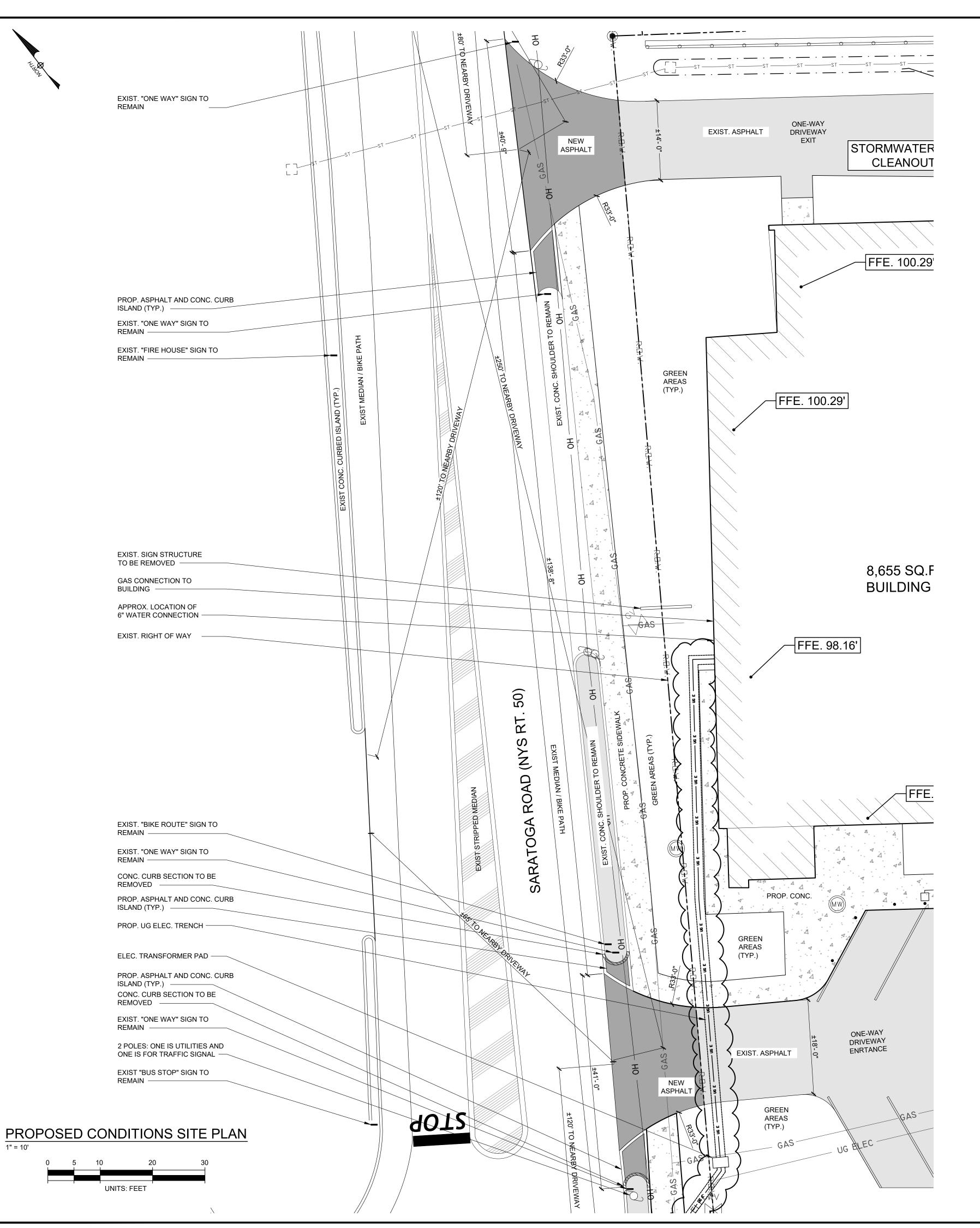
446 SARATOGA ROAD LLC 446 SARATOGA RD SCHENECTADY, NY, 12302

RAWING TITLE

PROPOSED CONDITIONS SITE PLAN 446 SARATOGA ROAD

GLENVILLE, NY, 12302

SHT. 2 OF 8



WORK ZONE TRAFFIC CONTROL NOTES

- 1. THERE SHALL BE NO TEMPORARY LANE CLOSURES ON ROUTE 50, MONDAY-FRIDAY 6AM-9PM, SATURDAY 7AM-9PM & SUNDAY 8AM-9PM.
- 2. LANE CLOSURES AND/OR USE OF TEMPORARY CONCRETE BARRIER WITHIN FIVE FEET OF AN ACTIVE TRAVEL WAY BETWEEN NOVEMBER 1 & APRIL 15 SHALL REQUIRE SPECIAL PERMISSION FROM THE ENGINEER WITH CONCURRENCE FROM THE REGIONAL TRAFFIC OFFICE. THE CONTRACTOR SHALL NOTIFY THE ENGINEER ONE WEEK IN ADVANCE OF ANY REQUESTED CLOSURE.
- 3. THE CONTRACTOR SHALL MAINTAIN PEDESTRIAN AND BICYCLE TRAFFIC THROUGH AND AROUND THE PROJECT FOR THE DURATION OF CONSTRUCTION. MATERIAL, EQUIPMENT OR OTHER BARRIERS SHALL NOT BE PLACED OR MARKED IN SUCH A MANNER AS TO OBSTRUCT PEDESTRIAN OR BICYCLE TRAFFIC OR TO PRESENT A SAFETY HAZARD TO THE NON-MOTORIZED PUBLIC. WHERE PEDESTRIAN TRAFFIC MUST BE RELOCATED OFF THE EXISTING FACILITY, WALKWAYS SHALL BE CLEARLY MARKED AND HAVE A LOGICAL START AND TERMINUS.
- 4. EXCAVATIONS THAT PRODUCE A DROPP-OFF GREATER THAN 24 INCHES AND WITHIN 10 FEET FROM THE EDGE OF THE TRAVEL LANE THAT WILL REMAIN AT THE END OF THE WORK SHIFT SHALL BE SEPARATED FROM TRAFFIC WITH TEMPORARY CONCRETE BARRIER. SHOULDER AREAS SHOULD BE PREPARED TO RECEIVE THE SHOULDER PAVEMENT MATERIAL IMMEDIATELY AHEAD OF THE SHOULDER PAVING OPERATIONS TO MINIMIZE THE TIME A DROP-OFF EXISTS. THE CONTRACTOR SHALL BEGIN WORK TO ELIMINATE UNPROTECTED DROP-OFFS CREATED BY CONTRACT WORK WITHIN 7 CALENDER DAYS OF COMPLETION OF THE WORK CREATING THE DROPP-OFF.
- 5. HOLIDAY TEMPORARY LANE/SHOULDER RESTRICTIONS TABLE.

	TEMPORARY LANE/SHOULDER CLOSURE RESTRICTIONS FOR HOLIDAYS 2023					
HOLIDAY FALLS ON		TEMPORARY LANE CLOSURES ARE NOT ALLOWED FOR				
		BEGINNING 6 AM FRIDAY DECEMBER 30, 2022 AND ENDING 6 AM TUESDAY JANUARY 3, 2023				
		BEGINNING 6 AM FRIDAY MAY 26, 2023 AND ENDING 6 AM TUESDAY MAY 30, 2023				
INDEPENDENCE DAY	TUESDAY JULY 4	BEGINNING 6 AM SATURDAY JULY 1, 2023 AND ENDING 6 AM WEDNESDAY JULY 5, 2023				
LABOR DAY	MONDAY SEPTEMBER 4	BEGINNING 6 AM FRIDAY SEPTEMBER 1, 2023 AND ENDING 6 AM TUESDAY SEPTEMBER 5, 2023				
THANKSGIVING DAY THURSDAY NOVEMBER 23 BEGI		BEGINNING 6 AM WEDNESDAY NOVEMBER 22, 2023 AND ENDING 6 AM MONDAY NOVEMBER 27, 2023				
CHRISTMAS DAY	MONDAY DECEMBER 25	BEGINNING 6 AM FRIDAY DECEMBER 22, 2023 AND ENDING 6 AM TUESDAY DECEMBER 26, 2023				

TEMPORARY LANE/SHOULDER CLOSURE RESTRICTIONS FOR HOLIDAYS 2024					
HOLIDAY FALLS ON		TEMPORARY LANE CLOSURES ARE NOT ALLOWED FOR			
MEMORIAL DAY MONDAY MAY 27 BEGINNING 6 AM FRIDAY MAY 24, 2024 AND ENDING 6 AM TUESDAY MAY 28, 20		BEGINNING 6 AM FRIDAY DECEMBER 30, 2023 AND ENDING 6 AM TUESDAY JANUARY 3, 2024			
		BEGINNING 6 AM FRIDAY MAY 24, 2024 AND ENDING 6 AM TUESDAY MAY 28, 2024			
		BEGINNING 6 AM WEDNESDAY JULY 3, 2024 AND ENDING 6 AM MONDAY JULY 8, 2024			
LABOR DAY MONDAY SEPTEMBER 2 BEGINNING 6 AM FRIDAY AUGU		BEGINNING 6 AM FRIDAY AUGUST 30, 2024 AND ENDING 6 AM TUESDAY SEPTEMBER 3, 2024			
THANKSGIVING DAY	THURSDAY NOVEMBER 28	BEGINNING 6 AM WEDNESDAY NOVEMBER 27, 2024 AND ENDING 6 AM MONDAY DECEMBER 2, 2024			
CHRISTMAS DAY	WEDNESDAY DECEMBER 25	BEGINNING 6 AM TUESDAY DECEMBER 24, 2024 AND ENDING 6 AM MONDAY DECEMBER 26, 2024			

LEGEND				
[<u>364</u>]	EXIST. MINOR CONT.			
<u>365</u>	EXIST. MAJOR CONT.			
365	PROP. CONTOUR			
	PROPERTY LINE			
	SILT FENCE			
	UNDERGROUND GAS LINE			
	UNDERGROUND ELECTRIC LINE			
	UNDERGROUND SEWER LINE			
	UNDERGROUND STORM WATER LINI			
ОН	OVERHEAD UTILITY WIRE			
<u> </u>	GUARD RAIL			
	SETBACK			
X	CHAIN LINK FENCE			
•	TEST PIT LOCATION			
-	PERC. TEST LOCATION			
320.00'	PROPOSED SPOT ELEVATION			
0	UTILITY POLE			
	GAS VALVE			
	MONITOR WELL MANHOLE			
wv 	WATER VALVE			
\sim	WATER HYDRANT			
\$	SEWER MANHOLE			
	CATCH BASIN			
Ģ	E.V. CHARGE STATION			

		REVISIONS
REV.	DATE	DESCRIPTION
0	2/12/2024	ISSUED FOR PERMITS AND CONSTRUCTION



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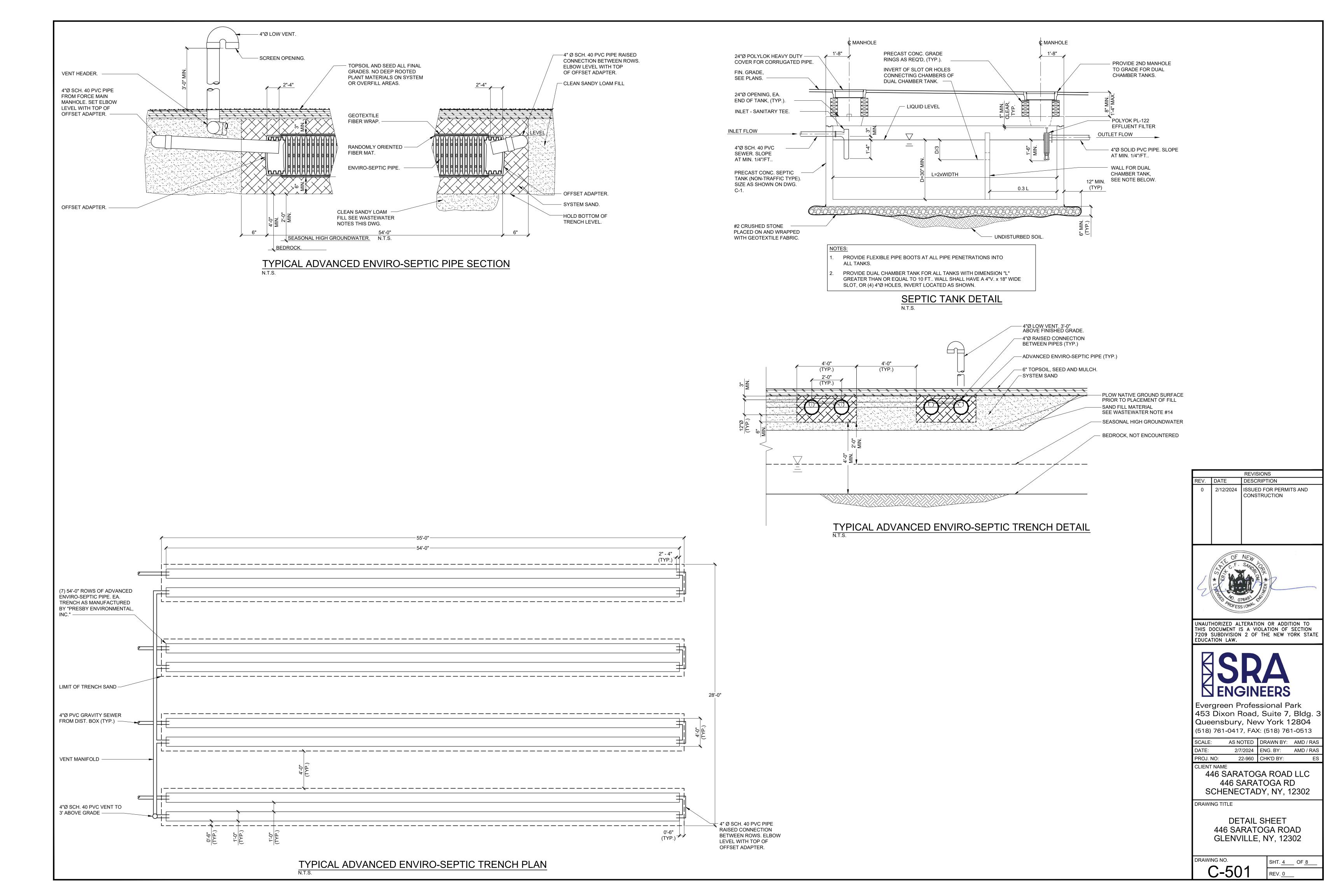
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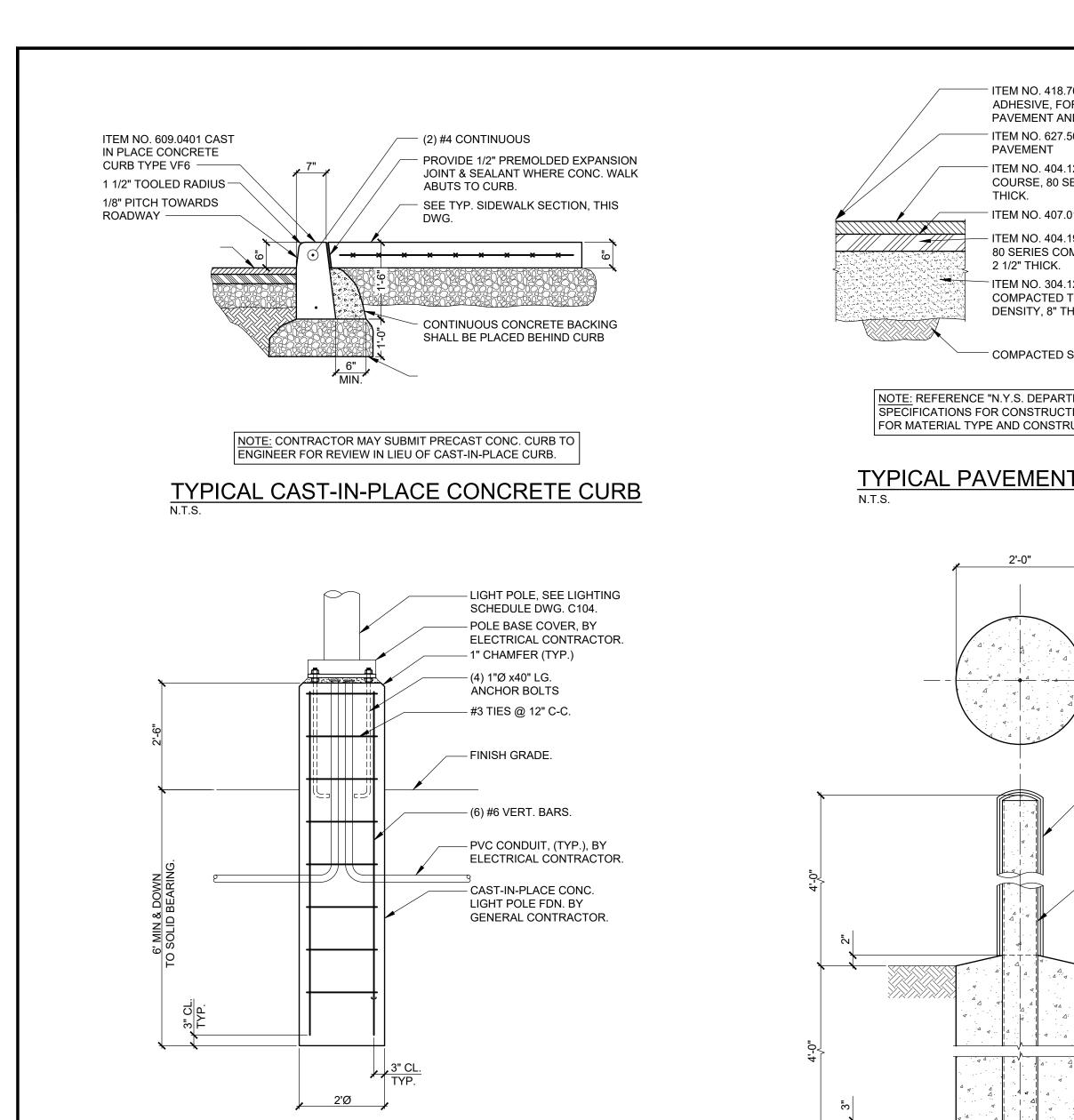
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DATE:	2/7/2024	ENG. BY:	AMD / RAS
PROJ. NO:	22-960	CHK'D BY:	ES

446 SARATOGA ROAD LLC 446 SARATOGA RD SCHENECTADY, NY, 12302

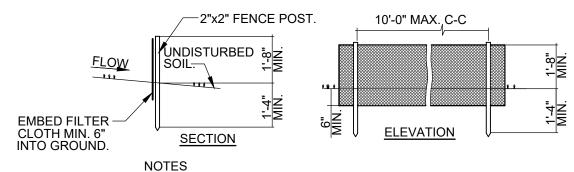
PROPOSED CONDITIONS DOT SITE PLAN 446 SARATOGA ROAD GLENVILLE, NY, 12302

DOT-101 REV. 0



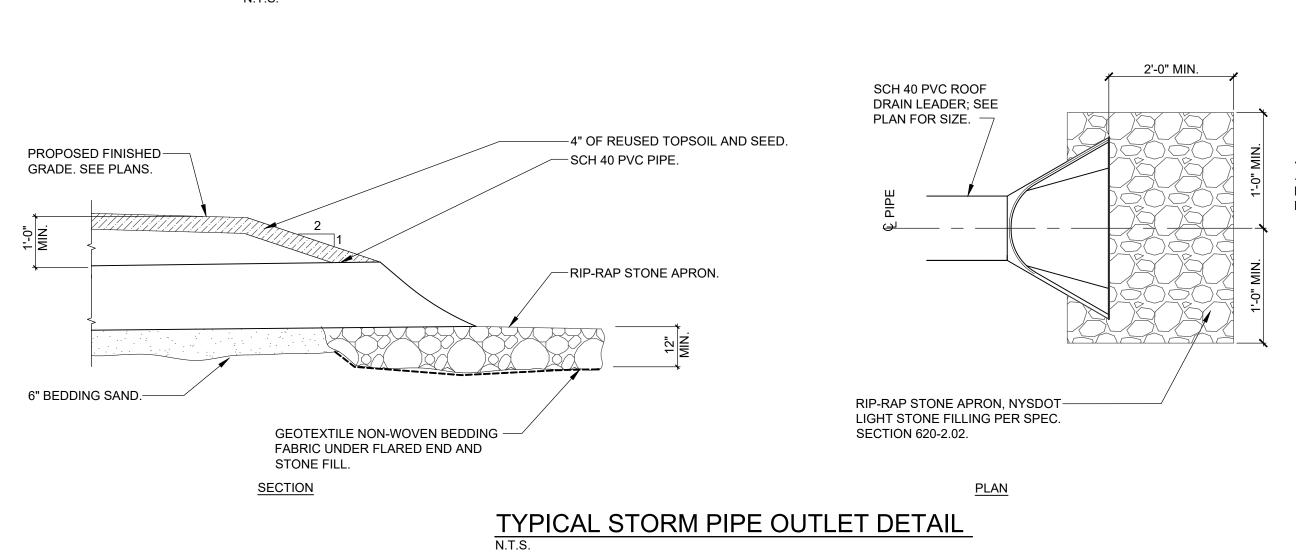


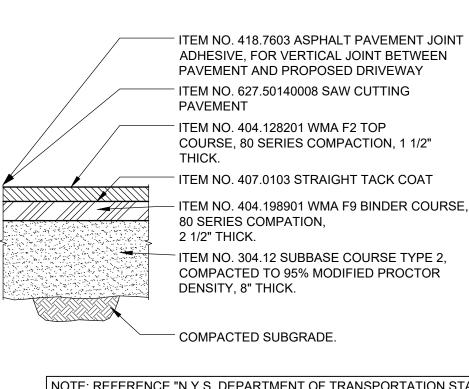
TYPICAL LIGHT POLE FDN. DETAIL



- FILTER CLOTH TO BE FASTENED SECURELY TO POSTS WITH STAPLES OR TIES AT 6" MAX. SPACING.
- 2. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVERLAPPED BY 6" AND FOLDED. 3. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE.

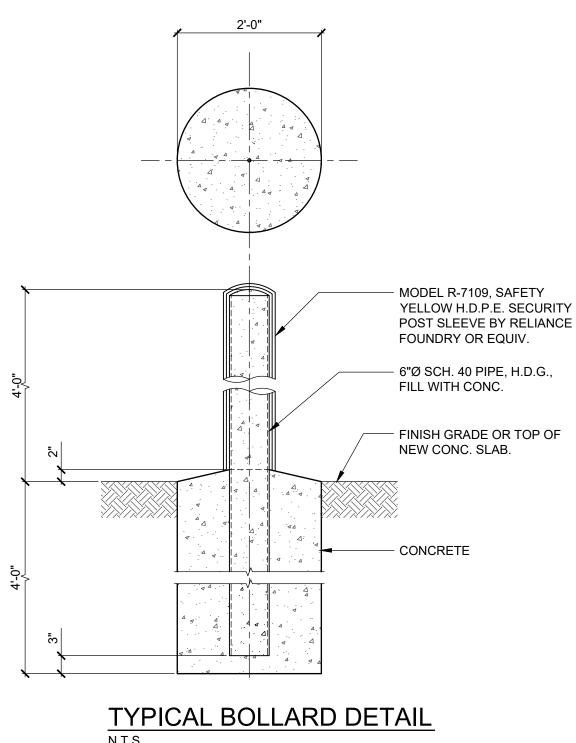
SILT FENCE DETAIL





NOTE: REFERENCE "N.Y.S. DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS", JANUARY 1, 2023, FOR MATERIAL TYPE AND CONSTRUCTION REQUIREMENTS.

TYPICAL PAVEMENT DETAIL



MIN. STORMWATER MANAGEMENT PRACTICE INFILTRATION BASIN SPDES NYR XXXXXX PRACTICE MUST BE MAINTAINED IN ACCORDANCE WITH OPERATION AND MAINTENANCE PLAN. THIS SIGN MAY NOT BE REMOVED OR ALTERED - GRASSED FINISHED GRADE. **SMP SIGN DETAIL**

30'-0" MAX SPACING

BETWEEN EXPANSION JOINTS.

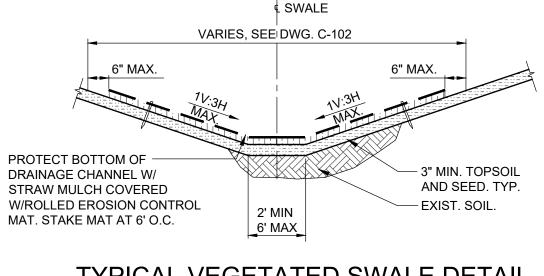
<u>PLAN</u>

SEE PLAN

EXIST. GROUND.

EXIST. GRADE.

CONTROL JOINT.-



- ITEM NO. 608.0101

CONCRETE SIDEWALK - 1/4" TOOLED RADIUS. (TYP.)

- EXPANSION JOINT W/1/4" THK.

PREFORMED JOINT FILLER.

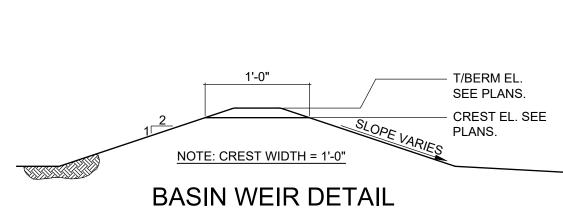
6X6-W1.4xW1.4 W.W.F. (TYP.)

-CONCRETE WASHOUT AREA 8'-0"x8'-0"x2'-0" DEEP ± MIN. IF EXCAVATED, SIDE

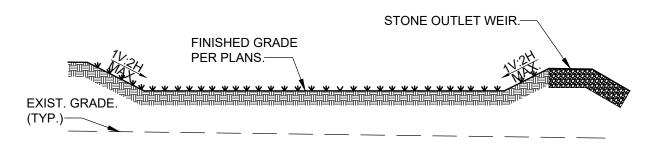
SLOPES SHALL BE 2H TO 1V.

PAVED ROADWAY.-

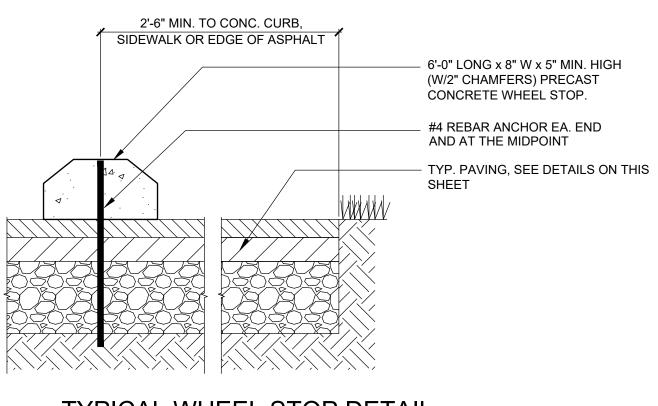
WASHOUT AREA.



TYPICAL VEGETATED SWALE DETAIL



SEDIMENTATION/INFILTRATION BASIN DETAIL



TYPICAL WHEEL STOP DETAIL

STABILIZED CONSTRUCTION ACCESS

CUT EVERY OTHER

FABRIC WIRE @

CONTROL JOINT.-

-EXPANSION JOINT

TYPICAL SIDEWALK DETAIL

<u>SECTION</u>

-6" MIN. STONE.

EXIST. PAVEMENT.

EXIST. ASPHALT

PAVEMENT.

NOTE: BROOM FINISH TOP OF SLAB.

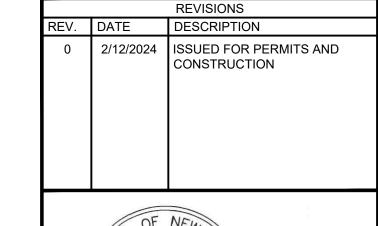
<u>NOTES</u>

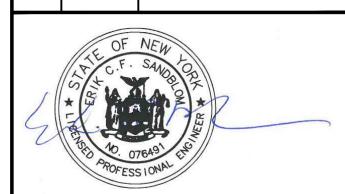
STONE, MIN. 6" THK. ON NON-WOVEN

GEOTEXTILE FABRIC.

DISTRIBUTION BOX DETAIL

- 1. STONE SHALL CONFORM WITH NYSDOT SPEC. SECTION 703-02 SIZE DESIGNATION 3.
- 2. GEOTEXTILE FABRIC SHALL BE NON-WOVEN.
- 3. PERIODICALLY TOP-DRESS ENTRANCE WITH NEW STONE AS SEDIMENT ACCUMULATES. ALL SEDIMENT DROPPED OR WASHED ONTO THE PUBLIC RIGHT-OF-WAY SHALL BE REMOVED





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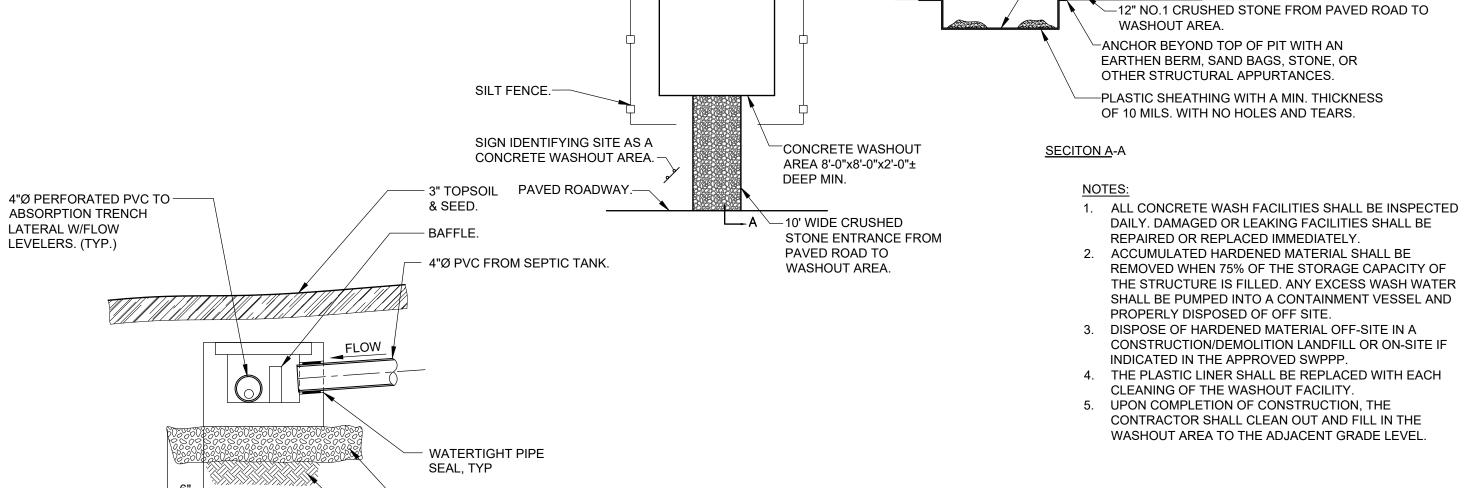
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DRAWING TITLE

DETAIL SHEET 446 SARATOGA ROAD GLENVILLE, NY, 12302

SHT. <u>5</u> OF <u>8</u>



6" MIN. PEA GRAVEL.

UNDISTURBED SOIL.

CONCRETE WASHOUT AREA

SILT FENCE.

GENERAL NOTES

- THE TYPICAL DETAILS DEPICTED ON THE STANDARD SHEETS AND IN THE MUTCD, REFLECT THE MINIMUM REQUIREMENTS.
- 2. PROPOSED REVISIONS TO THE TRAFFIC CONTROL PLAN SHALL BE PROVIDED, IN WRITING, TO THE DOT ENGINEER FOR REVIEW AND APPROVAL BY THE REGIONAL DIRECTOR OR HIS/HER DESIGNEE FIVE (5) WORK DAYS PRIOR TO THE PLANNED IMPLEMENTATION OF SUCH PROPOSED REVISIONS, EXCEPT FOR CHANGES THAT ALTER THE SCOPE OF THE TRAFFIC CONTROL PLAN. SUCH CHANGES IN SCOPE MUST BE SUBMITTED TO THE ENGINEER FOR APPROVAL BY THE REGIONAL DIRECTOR OR HIS/HER DESIGNEE THIRTY (30) WORK DAYS PRIOR TO IMPLEMENTATION OF SUCH REVISIONS
- THE NAMES, ADDRESSES, AND TELEPHONE NUMBERS OF STAFF WHO ARE AUTHORIZED TO SECURE LABOR, MATERIALS, AND EQUIPMENT FOR EMERGENCY REPAIRS OUTSIDE NORMAL WORKING HOURS SHALL BE PROVIDED, IN WRITING, TO THE NYSDOT ENGINEER, THE ENGINEER WILL PROVIDE THE SUBBILITED INFORMATION TO REGIONAL MANAGEMENT, THE NEW YORK STATE POLICE, THE RESIDENT ENGINEER, AND THE LOCAL POLICE.
- 4. STANDARD SHEET 619-503 MAY BE USED FOR AN OFFSITE DETOUR SETUP FOR BOTH LONG TERM AND SHORT TERM WORK DURATIONS.
- 5. REGIONAL HIGH-VOLUME RESTRICTIONS SHALL BE FOLLOWED. CONSULT WITH DOT ENGINEER
- PLAN AHEAD TO AVOID CONFLICTING WORK ZONES, CHECK FOR CONSTRUCTION PROJECTS, CLOSURES, & RESTRICTIONS AT WWW.511NY.ORG, WWW.DOT.NY.GOV/PROJECTS, AND WITH
- WORK ZONE INCIDENTS SHALL BE DOCUMENTED AND REPORTED USING EITHER THE DEPARTMENT'S WORK ZONE INCIDENT FORM, OR THE CONSTRUCTION INCIDENT REPORTING
- 8. CONSIDER CLOSURE WIDTH AND THE ABILITY TO ACCOMMODATE WIDE LOAD VEHICLES BEFORE ESTABLISHING WORK ZONES.
- 9. IF THE WORK ZONE AFFECTS AN EXISTING ACCESSIBLE AND DETECTABLE PEDESTRIAN FACILITY, ACCESSIBILITY AND DETECTABLITY SHALL BE PROVIDED ALONG THE ALTERNATE

- A 500' MINIMUM LONGITUDINAL DISTANCE SHALL BE MAINTAINED BETWEEN CONSTRUCTION OPERATIONS ON ALTERNATE SIDES OF THE ROADWAY, UNLESS OTHERWISE APPROVED BY THE
- 2. WHEN TWO OR MORE AREAS ARE ADJACENT, OVERLAP, OR ARE IN CLOSE PROXIMITY, THE CONTRACTOR SHALL ENSURE THERE ARE NO CONFLICTING SIGNS AND THAT LANE CONTINUITY IS MAINTAINED THROUGHOUT ALL WORK AREAS.

- THE LOCATIONS OF THE SIGNS SHOWN ON THE WORK ZONE TRAFFIC CONTROL PLANS AND DETAILS MAY BE ADJUSTED BASED ON SIGHT DISTANCE AND OTHER CONSIDERATIONS. THE FINAL LOCATIONS OF SIGNS ARE SUBJECT TO APPROVAL OF THE ENGINEER.
- FOR LONG TERM WORK DURATIONS, ANY EXISTING SIGNS, INCLUDING OVERHEAD SIGNS,
 WHICH CONFLICT WITH THE TEMPORARY TRAFFIC CONTROL SIGN LAYOUT SHALL BE COVERED,
 REMOVED, STORED OR RESET, AS APPROVED BY THE ENGINEER. ALL APPROPRIATE EXISTING
 SIGNS SHALL BE RESTORED TO THEIR ORIGINAL CONDITION AND/OR LOCATION UNLESS OTHERWISE REPLACED IN THIS CONTRACT.
- 3. SIGNS AT OR NEAR INTERSECTIONS SHALL BE PLACED SO THAT THEY DO NOT OBSTRUCT A
- 4. SIGNS MOUNTED ON THE MEDIAN OF DIVIDED HIGHWAYS WHERE MEDIAN BARRIER IS IN PLACE MAY BE MOUNTED ON THE BARRIER WITH A SADDLE TYPE BRACKET OR OMITTED WITH THE APPROVAL OF THE DOT ENGINEER. LAYING THE SIGN DOWN IN A HORIZONTAL POSITION
- 5. THE DIMENSIONS OF WORK ZONE TRAFFIC CONTROL SIGNS ARE DESCRIBED IN THE MUTCD.
 ANY CHANGES TO THE DIMENSIONS SHALL BE APPROVED BY THE REGIONAL DIRECTOR OR BY
- 6. NYR9-12 SHALL BE USED IN PLACE OF NYR9-11 WHEN A REDUCED REGULATORY SPEED LIMIT
- 7. RIGID AND FLEXIBLE "ROLL-UP" SIGNS MAY BE USED FOR MOBILE, SHORT DURATION AND SHORT-TERM STATIONARY WORK. RIGID SIGNS MUST BE MOUNTED AT LEAST 5 FEET ABOVE GRADE (7 FEET WHERE THERE ARE PEDESTRIANS OR PARKED CARS). FLEXIBLE SIGNS SHALL BE MOUNTED AT LEAST ONE FOOT ABOVE GRADE. MESH SIGNS SHALL NOT BE USED. USE RETRO REFLECTORIZED RIGID SIGNS FOR NIGHTTIME WORK.

CHANNELIZING DEVICES

WHERE POSSIBLE ALL CHANNELIZING AND GUIDING DEVICES ARE TO BE PLACED SO AS TO PROVIDE A MINIMUM 2' LATERAL CLEARANCE TO THE TRAVELED WAY.

- PROPERTY OWNERS WHOSE DRIVEWAYS WILL BE MADE INACCESSIBLE SHALL BE NOTIFIED AT LEAST 24 HOURS PRIOR TO RESTRICTING USE OF THE DRIVEWAY, FOR MULTIPLE ACCESS PROPERTIES, AT LEAST ONE DRIVEWAY SHALL BE OPEN AT ALL TIMES. ACCESS SHALL BE RESTORED TO ALL DRIVEWAYS AS SOON AS POSSIBLE.
- SUITABLE RAMPS SHALL BE INSTALLED TO MAINTAIN SMOOTH TRANSITIONS FROM RESIDENTIAL AND COMMERCIAL DRIVEWAYS TO AND FROM THE WORK AREA.

- 1. LANE CLOSURES SHALL BE LOCATED TO PROVIDE OPTIMUM VISIBILITY, I.E. BEFORE CURVES AND CRESTS, TO THE EXTENT CONDITIONS PERMIT.
- 2. THE ENGINEER MAY REQUIRE THAT ALL LANES BE RE-OPENED AT ANY TIME IF THE ROUTE IS NEEDED FOR EMERGENCY PURPOSES. THIS COULD INCLUDE INCIDENTS AT LOCATIONS
- 3. EACH ARROW PANEL SHALL BE VISIBLE 1500 FEET IN ADVANCE FROM ANY POINT WITHIN

LANE WIDTHS

- 1. UNLESS AUTHORIZED BY THE ENGINEER, THE MINIMUM LANE WIDTHS FOR WORK ZONE TRAVEL LANES SHALL BE AS FOLLOWS: FREEWAYS AND/OR EXPRESSWAYS IS 11'. THE MINIMUM LANE WIDTH FOR ALL OTHER TYPES OF ROADWAYS IS 10'.
- 2. A WRITTEN NOTE SHALL BE PROVIDED TO THE ENGINEER, A MINIMUM OF 21 CALENDAR DAYS IN ADVANCE OF PERFORMING ANY WORK THAT RESULTS IN THE REDUCED WIDTH OF AN EXISTING ROADWAY, SO THAT THE ENGINEER MAY NOTIFY THE REGIONAL PERMIT ENGINEER
- 3. IF THE WORK ZONE AFFECTS PEDESTRIANS, A MINIMUM PEDESTRIAN PATHWAY WIDTH OF 5 FEET SHALL BE MAINTAINED UNLESS OTHERWISE AUTHORIZED BY THE ENGINEER.
- TEMPORARY BICYCLE ACCOMMODATIONS SHALL NOT BE LESS THAN WHAT CURRENTLY EXISTS UNLESS AUTHORIZED BY THE ENGINEER.

PROTECTIVE VEHICLES

- 1. PROTECTIVE VEHICLES ARE DIVIDED INTO 2 CATEGORIES BASED ON THE GROSS VEHICLE PROTECTIVE VEHICLE LIGHT (PVL) SHALL HAVE A MINIMUM GVW OF 9,500 LBS. OR PROTECTIVE VEHICLE HEAVY (PVH) SHALL HAVE A MINIMUM GVW OF 22,000 LBS. OR
- 2. IF THE PROTECTIVE VEHICLE ENCROACHES INTO THE TRAVEL LANE, OR IF IT REMAINS ENTIRELY ON THE SHOULDER OF ANY HIGH SPEED ROAD (≥ 45 MPH), IT SHALL BE ENTIRELY ON THE SHOULDER OF ANY HIGH SPEED ROAD (2.45 MPH), IT SHALL BE EQUIPPED WITH A DEPLOYED TRUCK/TRAILER MOUNTED IMPACT ATTENUATOR (TMIA, SEE TABLE 011-01 ON SHEET 619-011). BALLAST MAY BE USED TO BRING A LIGHTER VEHICLE UP TO THE INDICATED WEIGHT PROVIDED THE BALLAST IS SECURELY CONTAINED WITHIN AN ENCLOSED BODY OR OTHERWISE SECURELY FASTENED TO THE VEHICLE PURSUANT TO FEDERAL MOTOR CARRIER SAFETY ADMINISTRATION (FMCSA) CARGO SECUREMENT RULES, SUCH THAT:

 1) THE BALLAST WILL NOT SEPARATE FROM THE VEHICLE UPON IMPACT AND 2) THE BALLAST WEIGHT WILL NOT EXCEED THE MANUFACTURER'S GROSS VEHICLE WEIGHT
 - TRILING GOVENT.

 TRUCK/TRAILER MOUNTED IMPACT ATTENUATORS SHALL NOT BE MOUNTED/INSTALLED ON VEHICLES WITH A GROSS WEIGHT (GVW) LESS THAN WHAT IS MINIMALLY REQUIRED BY THE MANUFACTURER OF THE TMIA.
- WHEN A PROTECTIVE VEHICLE(S) IS USED BETWEEN THE WORK VEHICLE (CREW) OR HAZARD
 AND THE TRAFFIC IN A MOVING OPERATION IT IS REFERRED TO AS A SHADOW VEHICLE(S).
- 4. WHEN A PROTECTIVE VEHICLE(S) IS USED BETWEEN THE WORK VEHICLE (CREW) OR HAZARD AND THE TRAFFIC IN A STATIONARY OPERATION IT IS REFERRED TO AS A BARRIER
- WHEN A PROTECTIVE VEHICLE IS USED IN ADVANCE OF EITHER MOVING OR STATIONARY OPERATIONS TO DISPLAY SIGN MESSAGES IT IS REFERRED TO AS AN ADVANCE WARNING VEHICLE. WHEN SIGNS ARE MOUNTED ON AN ADVANCED WARNING VEHICLE, THEY SHALL NOT OBSTRUCT VISIBILITY OF ANY LIGHTS (TAILLIGHTS OR WARNING LIGHTS), OR SIDE-VIEW
- 6. IN A MOVING OPERATION OR A STATIONARY OPERATION THAT OCCUPIES A LOCATION FOR UP TO 1 HOUR, THE OPERATOR SHALL REMAIN IN THE PROTECTIVE VEHICLE WITH THE SAFETY BELT AND HEADREST PROPERLY ADJUSTED, WAINTAIN VEHICLE SPACING, AND KEEP THE WHEELS ALIGNED WITH THE LANE STRIPING AND LANE TO MAINTAIN LANE DISCIPLINE AND TO STAY IN LANE IF STRUCK. THE PARKING BRAKE SHALL BE SET WHENEVER POSSIBLE. TWO-WAY RADIOS SHOULD BE USED TO COMMUNICATE BETWEEN THE OPERATOR AND THE WORK
- 7. IN A STATIONARY OPERATION THAT OCCUPIES A LOCATION FOR MORE THAN 1 HOUR. ONCE IN A STATIONARY OPERATION THAT OCCUPIES A LOCATION FOR MORE THAN I HOUR, ONCE THE PROTECTIVE VEHICLE HAS BEEN APPROPRIATELY PLACED, IT SHOULD BE UNOCCUPIED. UNOCCUPIED VEHICLE SHALL BE POSITIONED PARALLEL TO TRAFFIC, PARKING BRAKE SET, PLACED IN 2ND GEAR (MANUAL TRANSMISSIONS). FOR STROYING FOR PARK / NEUTRAL (AUTOMATIC TRANSMISSIONS). THE FRONT WHEELS SHALL BE ALIGNED WITH THE LANE STRIPING AND LANE TO MAINTAIN LANE DISCIPLINE AND TO STAY IN LANE IF STRUCK.
- 8. NO WORK ACTIVITY, EQUIPMENT, VEHICLES AND/OR MATERIALS SHALL BE LOCATED BETWEEN THE PROTECTIVE VEHICLE AND THE ACTIVE WORK AREA (ROLL AHEAD DISTANCE).
- DIRECT VERBAL COMMUNICATION BETWEEN THE PROTECTIVE VEHICLES AND THE WORK VEHICLE(S) / EQUIPMENT SHALL BE UTILIZED WHERE AVAILABLE.

WORK DURATION DEFINITIONS

- 1. THERE ARE MAINLY FIVE WORK DURATIONS:
 - A. LONG-TERM IS STATIONARY WORK THAT OCCUPIES A LOCATION MORE THAN 3
 - B. INTERMEDIATE-TERM IS STATIONARY WORK THAT OCCUPIES A LOCATION MORE THAN ONE DAYLIGHT PERIOD UP TO 3 CONSECUTIVE DAYS, OR NIGHTTIME WORK
 - C. SHORT-TERM IS STATIONARY DAYTIME WORK THAT OCCUPIES A LOCATION FOR MORE THAN 1 HOUR WITHIN A SINGLE DAYLIGHT PERIOD.
 - D. SHORT DURATION IS WORK THAT OCCUPIES A LOCATION UP TO 1 HOUR. IT CAN BE PERFORMED DURING THE DAYTIME OR AT NIGHT IN ACCORDANCE WITH NOTES NI TO NII NOTES ON NIGHTTIME WORK.
 - E. MOBILE IS WORK THAT MOVES INTERMITTENTLY OR CONTINUOUSLY WHERE THE WORK AT ANY SPECIFIC LOCATION COMPLETES WITHIN 15 MINUTES. IT IS USED FOR VEHICLE BASED OPERATIONS AND DOES NOT INVOLVE WORKERS ON FOOT. IT CAN BE PERFORMED DURING THE DAYTIME OR AT NIGHT IN ACCORDANCE WITH NOTES N1 TO N10 NOTES ON NIGHTTIME WORK.
- SPECIAL OPERATIONS ARE WORK OPERATIONS THAT DO NOT FIT INTO ONE OF THE ABOVE FIVE CATEGORIES. SPECIAL OPERATIONS INCLUDE:
 - A. STOP AND GO OPERATIONS WORK THAT COMPLETES WITHIN 5 MINUTES AND ALLOWS WORKERS ON FOOT.
 - B. OTHER OPERATIONS INCLUDING MOWING, MULCHING/HERBICIDE OPERATIONS, TEMPORARY ROAD/INTERSECTION CLOSURES, ETC.

ROADWAY TYPE DEFINITIONS

- 1. FREEWAY:
 - A. INTERSTATE: INTERREGIONAL HIGH-SPEED, HIGH-VOLUME, DIVIDED FACILITIES WITH COMPLETE CONTROL OF ACCESS.
 - B. PARKWAY: DIVIDED HIGHWAYS FOR NON-COMMERCIAL TRAFFIC WITH FULL CONTROL OF ACCESS, GRADE PARKWAY SEPARATIONS, INTERCHANGES, AND OCCASIONAL ATGRADE INTERSECTIONS. PARKWAYS ARE DESIGNATED BY LAW.
- EXPRESSWAY: DIVIDED HIGHWAYS FOR THROUGH TRAFFIC WITH FULL OR PARTIAL CONTROL
 OF ACCESS AND GENERALLY WITH GRADE SEPARATIONS AT MAJOR CROSSROADS. ALL
 FREEWAY STANDARD SHEETS ARE APPLICABLE TO EXPRESSWAY.
- - A. MULTILANE DIVIDED HIGHWAY
 - B. MULTILANE UNDIVIDED HIGHWAY
 - C. TWO-LANE TWO-WAY ROADWAY
- ALL NON-FREEWAYS CAN BE EITHER URBAN OR RURAL:

URBAN: (MEETS MORE THAN 1 OF THE FOLLOWING CRITERIA)

*HIGH DENSITY DEVELOPMENT *ON-STREET PARKING

*VARIED BUILDING SETBACKS **WILTI-STORY AND LOW-TO MEDIUM-RISE STRUCTURES FOR RESIDENTIAL

**COMMERCIAL, AND EDUCATIONAL USES, STRUCTURES THAT ACCOMMODATE MIXED USES: COMMERCIAL, RESIDENTIAL, AND PARKING USES COMMMERCIAL, RESIDENTIAL, AND PARKING
LIGHT INDUSTRIAL, AND SOMETIMES HEAVY INDUSTRIAL, LAND USE
*PROMINENT DESTINATIONS WITH SPECIALIZED STRUCTURES, E.G., LARGE THEATERS,
SPORTS FACILITIES OR CONFERENCE CENTERS
*HIGH LEVELS OF PEDESTRIAN AND BICYCLIST ACTIVITY, WITH NEARLY CONTINUOUS
SIDEMAIN ES AND MARKED CROSCOMENTS. SIDEWALKS AND MARKED CROSSWALKS

HIGHER DENSITY OF TRANSIT STOPS AND ROUTES DRIVEWAY DENSITIES GREATER THAN 25 DRIVEWAYS/MILE ON EACH SIDE OF THE

MINOR COMMERCIAL DRIVEWAY DENSITIES OF 10 DRIVEWAYS/MILE OR GREATER *MAJOR COMMERCIAL DRIVEWAYS *HIGH DENSITY OF CROSS STREETS

RURAL: DOES NOT MEET MORE THAN ONE OF THE ABOVE CRITERIA.

NOTES FOR NIGHTTIME OPERATIONS:

- N1. WORK OCCURRING AFTER SUNSET AND BEFORE SUNRISE WILL BE CONSIDERED NIGHTTIME
- N2. ALL SIGNS, STOP/SLOW PADDLES AND RED FLAGS USED TO WARN/ALERT/CONTROL TRAFFIC SHALL BE RETROREFLECTIVE.
- N3. ALL WORKERS INVOLVED SHALL WEAR PROTECTIVE HELMETS AND NIGHTTIME APPAREL IN ACCORDANCE WITH §107-05A. HIGH VISIBILITY APPAREL AT ALL TIMES.
- N4. VEHICLES OPERATING ON THE PAVEMENT OF A CLOSED ROADWAY OR TRAVEL LANE SHALL DISPLAY ROTATING AMBER BEACONS OR FLASHING LED BEACONS AT ALL TIMES.
- N5. LEVEL I ILLUMINATION SHALL BE PROVIDED NEAR THE BEGINNING OF LANE CLOSURE TAPERS AND AT ROAD CLOSURES, INCLUDING THE SETUP AND REMOVAL OF THE CLOSURE
- N6. LEVEL II ILLUMINATION SHALL BE PROVIDED FOR FLAGGING STATIONS, ASPHALT PAYING, MILLING, AND CONCRETE PLACEMENT AND/OR REMOVAL OPERATIONS, INCLUDING BRIDGE DECKS, 50 FEET AHEAD OF AND 100 FEET BEHIND A PAYING OR MILLING MACHINE.
- N7. LEVEL III ILLUMINATION SHALL BE PROVIDED FOR PAVEMENT OR STRUCTURAL CRACK FILLING, JOINT REPAIR, PAVEMENT PATCHING AND REPAIRS, INSTALLATION OF SIGNAL EQUIPMENT OR OTHER ELECTRICAL/MECHANICAL EQUIPMENT, AND OTHER TASKS INVOLVING FINE DETAILS OR INTRICATE PARTS AND EQUIPMENT.
- N8. ALL LIGHTING SHALL BE DESIGNED, INSTALLED, AND OPERATED TO AVOID GLARE THAT AFFECTS TRAFFIC ON THE ROADWAY OR THAT CAUSES ANNOYANCE OR DISCOMFORT FOR RESIDENCES ADJOINING THE ROADWAY.
- N9. PRIOR TO THE START OF NIGHTTIME OPERATIONS, A WRITTEN NIGHTTIME OPERATIONS AND LIGHTING PLAN IS REQUIRED FOR APPROVAL FROM THE DOT ENGINEER.
- N10. SEE STANDARD SPECIFICATIONS §619 FOR ADDITIONAL REQUIREMENTS AND CONSIDERATIONS. REFER TO SECTION 619-3.19B FOR BALLOON LIGHTING REQUIREMENTS. N11.
- FLAGGERS SHALL USE A FLASHLIGHT WITH RED GLOW CONE/RED LED BATON FOR FLAGGING IN NON-ILLUMINATED FLAGGER STATIONS DURING NIGHTTIME OPERATIONS.



Department of **Transportation**

U.S. CUSTOMARY STANDARD SHEET

WORK ZONE TRAFFIC CONTROL GENERAL NOTES

APPROVED DECEMBER 21, 2022

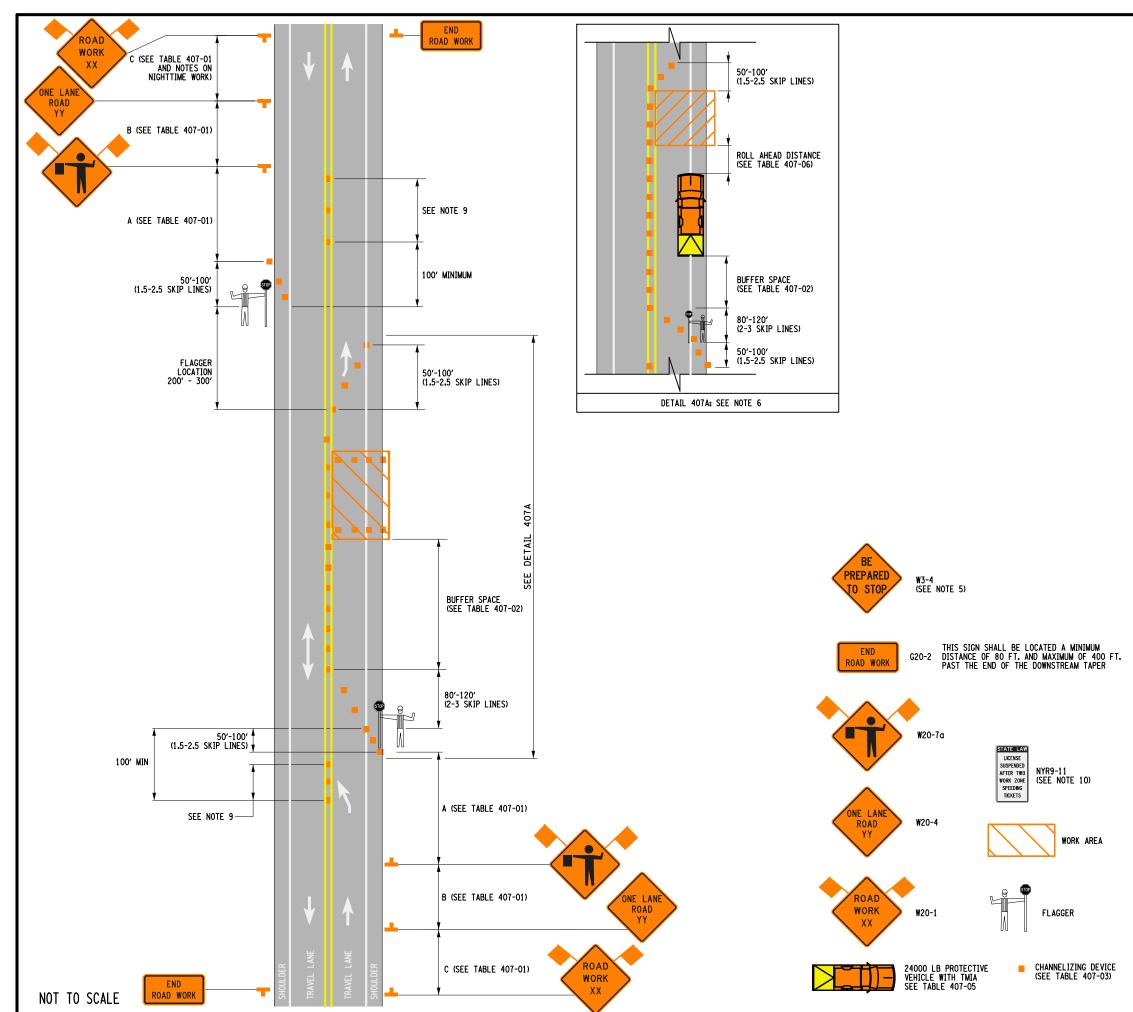
RobertLímoges ROBERT LIMOGES, P.E. DIRECTOR, OTSM

619-010

ISSUED UNDER EI 22-033

ERRATA 1 EFF. 05/01/2023 ISSUED WITH EB 22-033





NOTES:

- 1. INTERMEDIATE-TERM IS STATIONARY WORK THAT OCCUPIES A LOCATION MORE THAN ONE DAYLIGHT PERIOD UP TO 3 CONSECUTIVE DAYS, OR NIGHTTIME WORK LASTING MORE THAN 1 HOUR.
- 2. WHEN A SIDE ROAD OR DRIVEWAY INTERSECTS THE ROADWAY WITHIN A WORK ZONE TRAFFIC CONTROL AREA, ADDITIONAL TEMPORARY TRAFFIC CONTROL DEVICES AND/OR FLAGGERS SHALL BE PLACED AS NEEDED. ADDITIONAL FLAGGERS SHALL BE LOCATED AT ALL INTERSECTIONS AND COMMERCIAL DRIVEWAYS LOCATED WITHIN OR NEAR THE ACTIVE WORK SPACE. NO WORK ACTIVITY, EQUIPMENT, OR STORAGE OF VEHICLES, OR MATERIAL SHALL OCCUR WITHIN THE BUFFER SPACE AT ANY TIME.
- 3. CHANNELIZING DEVICE SPACING (CENTER TO CENTER) SHALL NOT EXCEED 20' IN THE ACTIVE WORK SPACE.
- 4. CHANNELIZING DEVICES SHALL BE PLACED TRANSVERSELY A MINIMUM OF EVERY 800' AS SHOWN WHEN A PAVED SHOULDER HAVING A WIDTH OF 8' OR GREATER IS CLOSED FOR A DISTANCE GREATER THAN 800'.
- 5. IF THE TRAFFIC IS EXPECTED TO QUEUE PAST THE W20-4 SIGN, A W3-4 SIGN SHOULD BE ADDED HALFWAY BETWEEN THE W20-4 AND W20-1 SIGNS.
- 6. IF CONDITION WARRANTS, PROTECTIVE VEHICLE WITH APPROPRIATE ROLL AHEAD DISTANCE MAY BE USED IN ADVANCE OF THE WORK AREA. TO USE PROTECTIVE VEHICLE, BUFFER SPACE SHALL BE PROVIDED ACCORDINGLY, AND THE WHEELS SHALL BE ALIGNED WITH THE LANE STRIPING.
- 7. FLAGGER SIGN (W20-7d) AND ONE LANE ROAD AHEAD SIGN (W20-4) SHALL BE REMOVED, COVERED OR TURNED AWAY FROM ROAD USERS WHEN FLAGGING OPERATIONS ARE NOT OCCURRING.
- 8. ALL FLAGGERS SHALL USE 24" (MIN.) OCTAGON SHAPED STOP/SLOW PADDLES HAVING 6' STAFF. THE PADDLE IS THE PREFERRED DEVICE, BUT THE FLAG MAY BE USED AT INTERSECTIONS WHERE THE STOP/SLOW PADDLE WOULD OFFER CONTRADICTING INFORMATION TO DRIVERS TRAVELING IN OPPOSITE DIRECTIONS/LEGS OF THE INTERSECTION OR DURING INCIDENT MANAGEMENT SITUATIONS.
- 9. CENTERLINE CONES MAY BE ADDED TO ENHANCE THE VISIBILITY OF THE FLAGGER STATION. IF CONES ARE USED, PLACE THEM 100 FT. (MINIMUM) FROM FLAGGER.
- 10. THE NY9-11 SIGN IS RECOMMENDED, WHEN USED, IT SHALL BE PLACED IN ADVANCE OF THE FIRST ADVANCE WARNING SIGN. THE PLACEMENT DISTANCE SHALL BE 1000' FOR POSTED SPEED LIMITS OF 45 MPH OR HIGHER, AND 300' 500' FOR POSTED SPEED LIMITS OF LESS THAN 45 MPH.

NOTES ON NIGHTTIME WORK:

- N1. WORK OCCURRING AFTER SUNSET AND BEFORE SUNRISE WILL BE CONSIDERED NIGHTTIME OPERATIONS.
- N2. ALL SIGNS, STOP / SLOW PADDLES AND RED FLAGS USED TO WARN / ALERT / CONTROL TRAFFIC SHALL BE RETROREFLECTIVE.
- N3. ALL WORKERS INVOLVED SHALL WEAR PROTECTIVE HELMET AND NIGHTTIME APPAREL IN ACCORDANCE WITH §107-05A. HIGH VISIBILITY APPAREL AT ALL TIMES.
- N4. VEHICLES OPERATING ON THE PAVEMENT OF A CLOSED ROADWAY OR TRAVEL LANE SHALL DISPLAY ROTATING AMBER BEACONS AT ALL TIMES.
- N5. LEVEL I ILLUMINATION SHALL BE PROVIDED NEAR THE BEGINNING OF LANE CLOSURE TAPERS AND AT ROAD CLOSURES, INCLUDING THE SETUP AND REMOVAL OF THE CLOSURE TAPERS.
- NG. LEVEL II ILLUMINATION SHALL BE PROVIDED FOR FLAGGING STATIONS, ASPHALT PAVING, MILLING, AND CONCRETE PLACEMENT AND/OR REMOVAL OPERATIONS, INCLUDING BRIDGE DECKS, 50 FEET AHEAD OF AND 100 FEET BEHIND A PAVING OR MILLING MACHINE.
- N7. LEVEL III ILLUMINATION SHALL BE PROVIDED FOR PAVEMENT OR STRUCTURAL CRACK FILLING, JOINT REPAIR, PAVEMENT PATCHING AND REPAIRS, INSTALLATION OF SIGNAL EQUIPMENT OR OTHER ELECTRICAL/MECHANICAL, AND OTHER TASKS INVOLVING FINE DETAILS OR INTRICATE PARTS AND EQUIPMENT.
- N8. ALL LIGHTING SHALL BE DESIGNED, INSTALLED, AND OPERATED TO AVOID GLARE THAT AFFECTS TRAFFIC ON THE ROADWAY OR THAT CAUSES ANNOYANCE OR DISCOMFORT FOR RESIDENCES ADJOINING THE ROADWAY.
- N9. PRIOR TO THE START OF NIGHTTIME OPERATIONS, A WRITTEN NIGHTTIME OPERATIONS AND LIGHTING PLAN IS REQUIRED FOR APPROVAL.
- N10. SEE NIGHTTIME SAFETY BULLETIN, HDM §16.5.7, & STANDARD SPECIFICATIONS §619 FOR ADDITONAL REQUIREMENTS AND CONSIDERATIONS.

REFER TO SHEET 2 OF 2 FOR ALL TABLES



FILE NAME = 619-407-1.dgn DATE/TIME = 06-DEC-2021 16:02 USER = woheron

TABLE 407-01: ADVANCE WARNING SIGN SPACING DISTANCE BETWEEN SIGNS | SIGN LEGEND ROAD TYPE A (FT.) B (FT.) C (FT.) XX 100 100 100 AHEAD AHEAD 200 200 200 AHEAD AHEAD 350 350 350 1000 FT. AHEAD 500 500 500 1500 FT. 1000 FT. URBAN (≤ 30 MPH*) URBAN (35-40 MPH+) URBAN (≥45 MPH*) RURAL * PRECONSTRUCTION POSTED SPEED LIMIT

TABLE 407-02: LONGITUDINAL BUFFER SPACE					
PRECONSTRUCTION POSTED SPEED LIMIT (MPH)	LONGITUDINAL BUFFER SPACE DISTANCE (FT.)/ * OF SKIP LINES				
45	360/9				
50	425/11				
55	495/13				
65	645/16				

TABLE 407-03: CH	ANNELIZING	DEVICE	E APPLICA	TION F	OR INT	ERMEDIATE	-TERM ST	ATIONAR	Y WORK Z	ONES
WORK ZONE PROVISIONS	NG NG				MUTCD C	OMPLIANT CH	ANNELIZING	DEVICE		
INTERMEDIATE-TERM STATIONARY WORK ZONES INVOLVE WORK THAT OCCUPIES A LOCATION FOR MORE THAN 1 DAYLIGHT PERIOD UP TO 3 CONSECUTIVE DAYS, OR NIGHTIME WORK THAT OCCUPIES A LOCATION FOR MORE THAN 1 HOUR	MAXIMUM DEVICE SPACING (CENTER TO CENTER)	DRUMS	STANDARD CONES	TALL CONES	EXTRA TALL CONES	TEMPORARY TUBULAR MARKERS	INTERIM TUBULAR MARKERS	VERTICAL PANELS	OVERSIZED VERTICAL PANELS	TYPE III BARRICADES
SHOULDER/MERGING/	20 FT. *	Х							Х	
SHIFTING TAPERS	40 FT.	Х							X	
MARKING FOR TRANSVERSE BUMPS ¹	N/A	x ²			x ²				x ²	
TRANSVERSE DEVICE WITHIN CLOSED TRAFFIC LANE AND/OR SHOULDER	800 FT.	х		Х	х			Х	х	0
REMOVAL OF EXISTING	80 FT.	x	·	х	х	x		Х	х	0
GUIDE RAIL	40 FT.	_ ^		^	^	^		^	^	
NOTES: X= ALLOWED, BLANK = NOT ALLOWED, O = OPTIONAL 1 A TYPE 1 OBJECT MARKER MAY BE USED IN LIEU OF CHANNELIZING DEVICE. 2 CHANNELIZING DEVICES SHALL BE EQUIPPED WITH A FLASHING WARNING LIGHT.										

CTCN	NON EDEEMAY	FREEWAY
SIGN	NON-FREEWAY	FREEWAI
G20-2	36×18	48×24
W3-4	36x36	48×48
W20-1	36x36	48×48
W20-4	36x36	48×48
W20-7a	36x36	48×48
WARNING FLAG	18x18	18×18

TABLE 407-05: PROTECTIVE VEHICLE REQUIREMENTS						
CLOSURE TYPE	ROAD TYPE & SPEED		NON-FREEWAY			
	NOAD TIPE & SPEED	≥ 45 MPH	35 - 40 MPH	≤ 30 MPH		
	EXPOSURE CONDITIONS ¹					
LANE CLOSURE OR	WORKERS ON FOOT OR VEHICLE EXPOSED TO TRAFFIC	P, TMIA	P, TMIA	SEE NOTE 2		
ENCROACHMENT	OTHER HAZARDS NO WORKERS EXPOSED	P, TMIA	SEE NOTE 2	SEE NOTE 2		
SHOULDER CLOSURE	WORKERS ON FOOT OR VEHICLE EXPOSED TO TRAFFIC	P, TMIA	SEE NOTE 2	SEE NOTE 2		
OR ENCROACHMENT	OTHER HAZARDS NO WORKERS EXPOSED	SEE NOTE 2	SEE NOTE 2	SEE NOTE 2		

LEGEND

P: PROTECTIVE VEHICLE REQUIRED FOR EACH CLOSED LANE & EACH CLOSED PAVED SHOULDER 8' OR WIDER, IF THE WORK SPACE MOVES WITHIN THE STATIONARY CLOSURE, THE PROTECTIVE VEHICLE SHALL BE REPOSITIONED ACCORDINGLY

TMIA: TMIA REQUIRED

NOTES:
1. THE EXPOSURE CONDITIONS ASSUME THERE IS NO POSITIVE PROTECTION PRESENT
2. EITHER A PROTECTIVE VEHICLE OR THE STANDARD BUFFER SPACE SHALL BE PROVIDED

TABLE 407-06: ROLL AHEAD DISTANCE						
ROLL AHEAD DISTANCE (FT.)/* OF SKIP LINES FOR VEHICLES						
PRECONSTRUCTION	STATIONARY OPERATION					
POSTED SPEED LIMIT (MPH)	MIN	MAX				
≥ 55	120/3	200/5				
45 - 50	80/2	160/4				
≤ 40	40/1	120/3				



Department of **Transportation**

U.S. CUSTOMARY STANDARD SHEET

WORK ZONE TRAFFIC CONTROL TWO-LANE TWO-WAY ROADWAY LANE CLOSURE WITH FLAGGERS INTERMEDIATE TERM OPERATION (SHEET 2 OF 2)

APPROVED APRIL 8, 2022

RobertLimoges ROBERT LIMOGES, P.E. DIRECTOR, OTSM

619-407

ISSUED UNDER EI 22-008

NOTES:

1. INTERMEDIATE-TERM IS STATIONARY WORK THAT OCCUPIES A LOCATION MORE THAN ONE DAYLIGHT PERIOD UP TO 3 CONSECUTIVE DAYS, OR NIGHTTIME WORK LASTING MORE THAN 1 HOUR.

2. NO WORK ACTIVITY OR STORAGE OF EQUIPMENT, VEHICLES, OR MATERIAL SHOULD OCCUR WITHIN A

3. XX IS THE EXPECTED OVERALL LENGTH OF THE OPERATION TO BE COMPLETED WITHIN THE WORK DAY. A SUPPLEMENTAL DISTANCE PLAQUE W7-3a SHALL BE USED WITH SIGN W2O-1 WHEN THE DISTANCE BETWEEN THE ADVANCE WARNING SIGNS AND WORK MAY BECOME GREATER THAN 2 MILES AS A RESULT OF THE FOLLOWING SITUATIONS:

THE FOLLOWING SITUATIONS:

• MULTIPLE WORK LOCATIONS ARE ANTICIPATED WITHIN XX MILES FROM THE W20-1 SIGN

• WORK AREA WILL BE RELOCATED DURING THE DURATION OF THE WORK WITHIN XX MILES FROM

THE SUPPLEMENT SIGN W7-3a SHALL INDICATE THE MAXIMUM ANTICIPATED DISTANCE BETWEEN THE W20-1 SIGN AND THE FARTHEST WORK LOCATION.

4. WHEN MULTIPLE WORK LOCATIONS EXIST WITHIN XX MILES FROM THE W20-1 SIGN, A G20-1 SIGN SHALL BE PLACED EVERY TWO MILES INDICATING THE DISTANCE FROM THE SIGN TO THE FARTHEST WORK LOCATION.

5. CHANNELIZING DEVICE SPACING (CENTER TO CENTER) SHALL NOT EXCEED 20^{\prime} IN THE ACTIVE WORK SPACE.

6. CHANNELIZING DEVICES SHALL BE PLACED TRANSVERSELY A MINIMUM OF EVERY 800' AS SHOWN WHEN A PAVED SHOULDER HAVING A WIDTH OF 8' OR GREATER IS CLOSED FOR A DISTANCE GREATER THAN 800'.

7. THE PROTECTIVE VEHICLE(S) SHALL MAINTAIN THE APPROPRIATE ROLL AHEAD DISTANCE, BE AN UNOCCUPIED TRUCK POSITIONED PARALLEL TO TRAFFIC, PARKING BRAKE SET, PLACED IN 2ND GEAR (MANUAL TRANSMISSIONS /ENGINE OFF) OR PARK / NEUTRAL (AUTOMATIC TRANSMISSIONS) AND HAVE THE FRONT WHEELS ALIGNED WITH THE LANE STRIPING.

NOTES ON NIGHTTIME WORK:

N1. WORK OCCURRING AFTER SUNSET AND BEFORE SUNRISE WILL BE CONSIDERED NIGHTTIME OPERATIONS.

N2. ALL SIGNS, STOP/SLOW PADDLES AND RED FLAGS USED TO WARN/ALERT/CONTROL TRAFFIC SHALL BE RETRORFFI FCTIVE.

N3. ALL WORKERS INVOLVED SHALL WEAR PROTECTIVE HELMETS AND NIGHTTIME APPAREL IN ACCORDANCE WITH §107-05A. HIGH VISIBILITY APPAREL AT ALL TIMES.

N4. VEHICLES OPERATING ON THE PAVEMENT OF A CLOSED ROADWAY OR TRAVEL LANE SHALL DISPLAY ROTATING AMBER BEACONS OR FLASHING LED BEACONS AT ALL TIMES.

N5. LEVEL I ILLUMINATION SHALL BE PROVIDED NEAR THE BEGINNING OF LANE CLOSURE TAPERS AND AT ROAD CLOSURES, INCLUDING THE SETUP AND REMOVAL OF THE CLOSURE TAPERS.

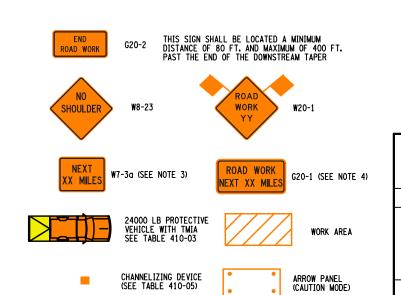
NG. LEVEL II ILLUMINATION SHALL BE PROVIDED FOR FLAGGING STATIONS, ASPHALT PAVING, MILLING, AND CONCRETE PLACEMENT AND/OR REMOVAL OPERATIONS, INCLUDING BRIDGE DECKS, 50 FEET AHEAD OF AND 100 FEET BEHIND A PAVING OR MILLING MACHINE.

N7. LEVEL III ILLUMINATION SHALL BE PROVIDED FOR PAVEMENT OR STRUCTURAL CRACK FILLING, JOINT REPAIR, PAVEMENT PATCHING AND REPAIRS, INSTALLATION OF SIGNAL EQUIPMENT OR OTHER ELECTRICAL/MECHANICAL EQUIPMENT, AND OTHER TASKS INVOLVING FINE DETAILS OR INTRICATE PARTS AND COLUMNIANT

N8. ALL LIGHTING SHALL BE DESIGNED, INSTALLED, AND OPERATED TO AVOID GLARE THAT AFFECTS TRAFFIC ON THE ROADWAY OR THAT CAUSES ANNOYANCE OR DISCOMFORT FOR RESIDENCES ADJOINING THE ROADWAY.

N9. PRIOR TO THE START OF NIGHTTIME OPERATIONS, A WRITTEN NIGHTTIME OPERATIONS AND LIGHTING PLAN IS REQUIRED FOR APPROVAL.

NIO. SEE NIGHTIME SAFETY BULLETIN, HDM §16.5.7, & STANDARD SPECIFICATIONS §619 FOR ADDITONAL REQUIREMENTS AND CONSIDERATIONS.



REFER TO SHEET 2 OF 2 FOR ALL TABLES



U.S. CUSTOMARY STANDARD SHEET

WORK ZONE TRAFFIC CONTROL TWO-LANE TWO-WAY ROADWAY SHOULDER CLOSURE INTERMEDIATE TERM OPERATION (SHEET 1 OF 2)

APPROVED DECEMBER 2, 2021 ISSUED UNDER EI 21-028

Robert Limoges
ROBERT LIMOGES, P.E.
DIRECTOR, OTSM

619-410

TABLE 410-01: ADV	ANCE WARNING S	IGN SPACING			
	DISTANCE BE	TWEEN SIGNS			
ROAD TYPE	A (FT.)	B (FT.)			
URBAN (≤ 30 MPH*)	100	100			
URBAN (35-40 MPH*)	200	200			
URBAN (≥ 45 MPH*)	350	350			
RURAL	500	500			
PRECONSTRUCTION POSTED SPEED LIMIT					

TABLE 410-02: LONGITUDINAL BUFFER SPACE AND TAPER LENGTHS							
PRECONSTRUCTION POSTED SPEED	LONGITUDINAL BUFFER SPACE		H: L (FT.)/ # OF CHANNELIZING DI		SHOULDER TAPER LENGTH: L/3 (FT.)/ * OF SKIP LINES/ * OF CHANNELIZING DEVICES		
LIMIT (MPH)	DISTANCE (FT.)/ * OF SKIP LINES		LANE WIDTH IN HIFT OF TRAFFIO		FO	R SHOULDER WID	тн
		10	11	12	≤ 4 FT.	5 - 7 FT.	≥8 FT.
25	155/4	120/3/4	120/3/4	120/3/4	40/1/2	40/1/2	40/1/2
30	200/5	160/4/5	160/4/5	200/5/6	40/1/2	40/1/2	40/1/2
35	250/6	200/5/6	240/6/7	240/6/7	40/1/2	40/1/2	80/2/3
40	305/8	280/7/8	320/8/9	320/8/9	40/1/2	80/2/3	80/2/3
45	360/9	440/11/12	520/13/14	560/14/15	80/2/3	80/2/3	120/3/4
50	425/11	520/13/14	560/14/15	600/15/16	80/2/3	120/3/4	160/4/5
55	495/13	560/14/15	600/15/16	680/17/18	80/2/3	120/3/4	160/4/5

TABLE 410-03: PROTECTIVE VEHICLE REQUIREMENTS					
CLOSURE TYPE	ROAD TYPE & SPEED		NON-FREEWAY		
	RUAD TIPE & SPEED	≥ 45 MPH	35 - 40 MPH	≤ 30 MPH	
	EXPOSURE CONDITIONS ¹				
LANE CLOSURE OR	WORKERS ON FOOT OR VEHICLE EXPOSED TO TRAFFIC	P, TMIA	P, TMIA	SEE NOTE 2	
ENCROACHMENT	OTHER HAZARDS NO WORKERS EXPOSED	P, TMIA	SEE NOTE 2	SEE NOTE 2	
SHOULDER CLOSURE	WORKERS ON FOOT OR VEHICLE EXPOSED TO TRAFFIC	P, TMIA	SEE NOTE 2	SEE NOTE 2	
OR ENCROACHMENT	OTHER HAZARDS NO WORKERS EXPOSED	SEE NOTE 2	SEE NOTE 2	SEE NOTE 2	

P: PROTECTIVE VEHICLE REQUIRED FOR EACH CLOSED LANE & EACH CLOSED PAVED SHOULDER 8' OR WIDER, IF THE WORK SPACE MOVES WITHIN THE STATIONARY CLOSURE, THE PROTECTIVE VEHICLE SHALL BE REPOSITIONED ACCORDINGLY

TMIA: TMIA REQUIRED

NOTES: 1. THE EXPOSURE CONDITIONS ASSUME THERE IS NO POSITIVE PROTECTION PRESENT 2. EITHER A PROTECTIVE VEHICLE OR THE STANDARD BUFFER SPACE SHALL BE PROVIDED

TABLE 410-04: ROLL AHEAD DISTANCE							
ROLL AHEAD DISTANCE (FT.)/* OF SKIP LINES FOR VEHICLES							
PRECONSTRUCTION STATIONARY OPERATION							
POSTED SPEED LIMIT (MPH)	MIN	MAX					
≥ 55	120/3	200/5					
45 - 50	80/2	160/4					
≤ 40	40/1	120/3					

TABLE 410-05: CH	ANNELIZING	DEVIC	E APPLICA	TION F	OR INT	ERMEDIATE	-TERM ST	ATIONAR	Y WORK ZO	NES
WORK ZONE PROVISIONS	NG				MUTCD C	OMPLIANT CH	ANNELIZING	DEVICE		
INTERMEDIATE-TERM STATIONARY WORK ZONES INVOLVE WORK THAT OCCUPIES A LOCATION FOR MORE THAN 1 DAYLIGHT PERIOD UP TO 3 CONSECUTIVE DAYS, OR NIGHTTIME WORK THAT OCCUPIES A LOCATION FOR MORE THAN 1 HOUR	MAXIMUM DEVICE SPACING (CENTER TO CENTER)	DRUMS	STANDARD CONES	TALL CONES	EXTRA TALL CONES	TEMPORARY TUBULAR MARKERS	INTERIM TUBULAR MARKERS	VERTICAL PANELS	OVERSIZED VERTICAL PANELS	TYPE III BARRICADES
SHOULDER/MERGING/	20 FT. •	Х							Х	
SHIFTING TAPERS	40 FT.	Х							Х	
MARKING FOR TRANSVERSE BUMPS 1	N/A	x ²	х		x ²				χ2	
TRANSVERSE DEVICE WITHIN CLOSED TRAFFIC LANE AND/OR SHOULDER	800 FT.	Х		х	х			х	Х	0
REMOVAL OF EXISTING	80 FT.	х		х	х	х		х	Х	0
GUIDE RAIL	40 FT.	_ ^		_ ^	_ ^	_ ^		^	^	

NOTES: X= ALLOWED, BLANK = NOT ALLOWED, 0 = OPTIONAL
1. - A TYPE 1 OBJECT MARKER MAY BE USED IN LIEU OF CHANNELIZING DEVICE.
2. - CHANNELIZING DEVICES SHALL BE EQUIPPED WITH A FLASHING WARNING LIGHT.

* SEE NOTE 5 ON SHEET 1 OF 2.

TABLE 410-06: REQUIRED SIGN SIZES*					
SIGN	NON-FREEWAY	FREEWAY			
G20-2	36×18	48×24			
W20-1	36x36	48×48			
W21-5	36×36	48×48			
W7-3a	24×18	36x30			
G20-1	36×18	48×24			
WARNING FLAG	18×18	18×18			
•FREEWAY SIZES MAY BE USED ON NON-FREEWAY, IF SPACE CONSTRAINTS DO NOT					



Department of Transportation

U.S. CUSTOMARY STANDARD SHEET

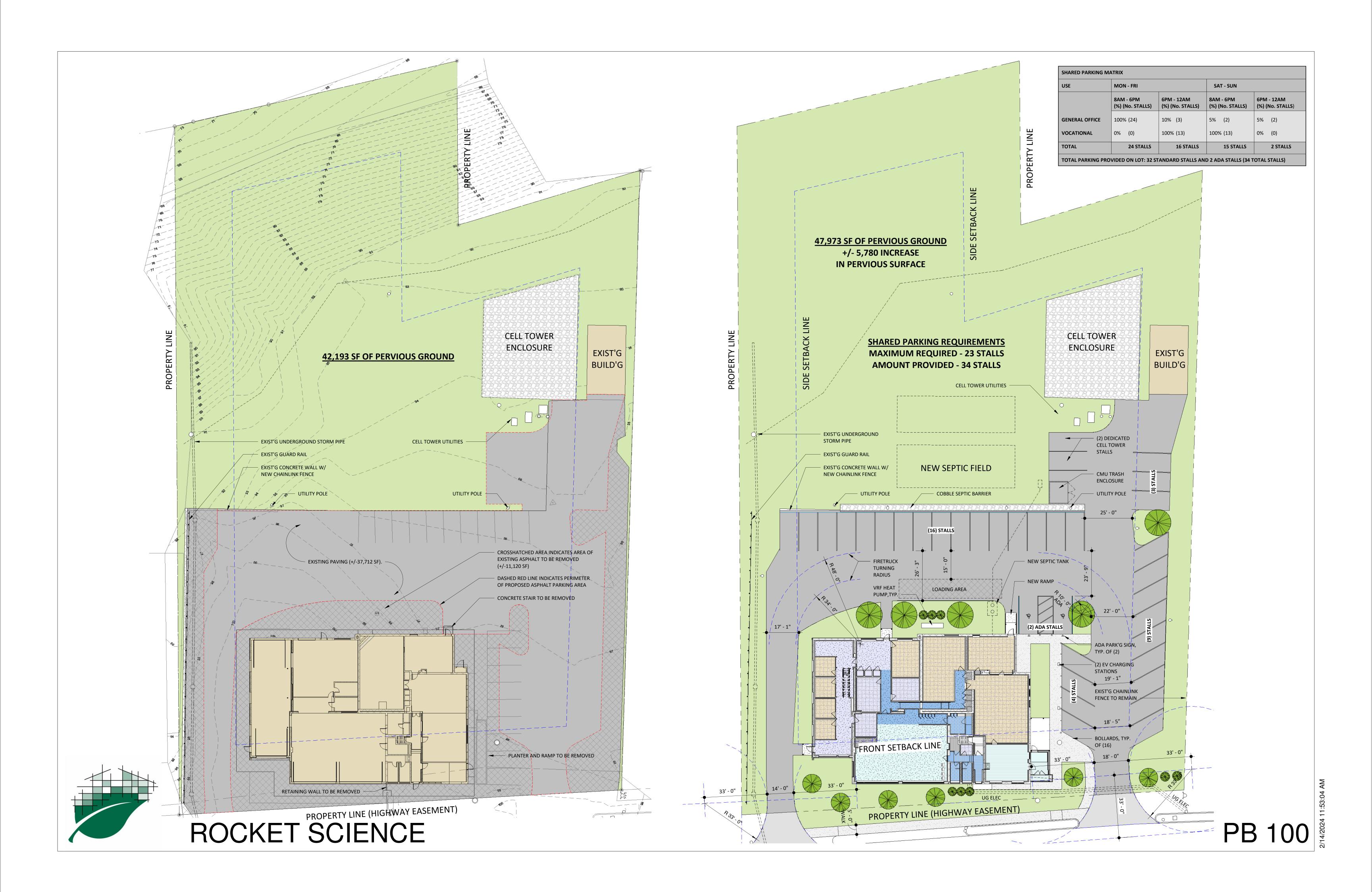
WORK ZONE TRAFFIC CONTROL TWO-LANE TWO-WAY ROADWAY SHOULDER CLOSURE
INTERMEDIATE TERM OPERATION
(SHEET 2 OF 2)

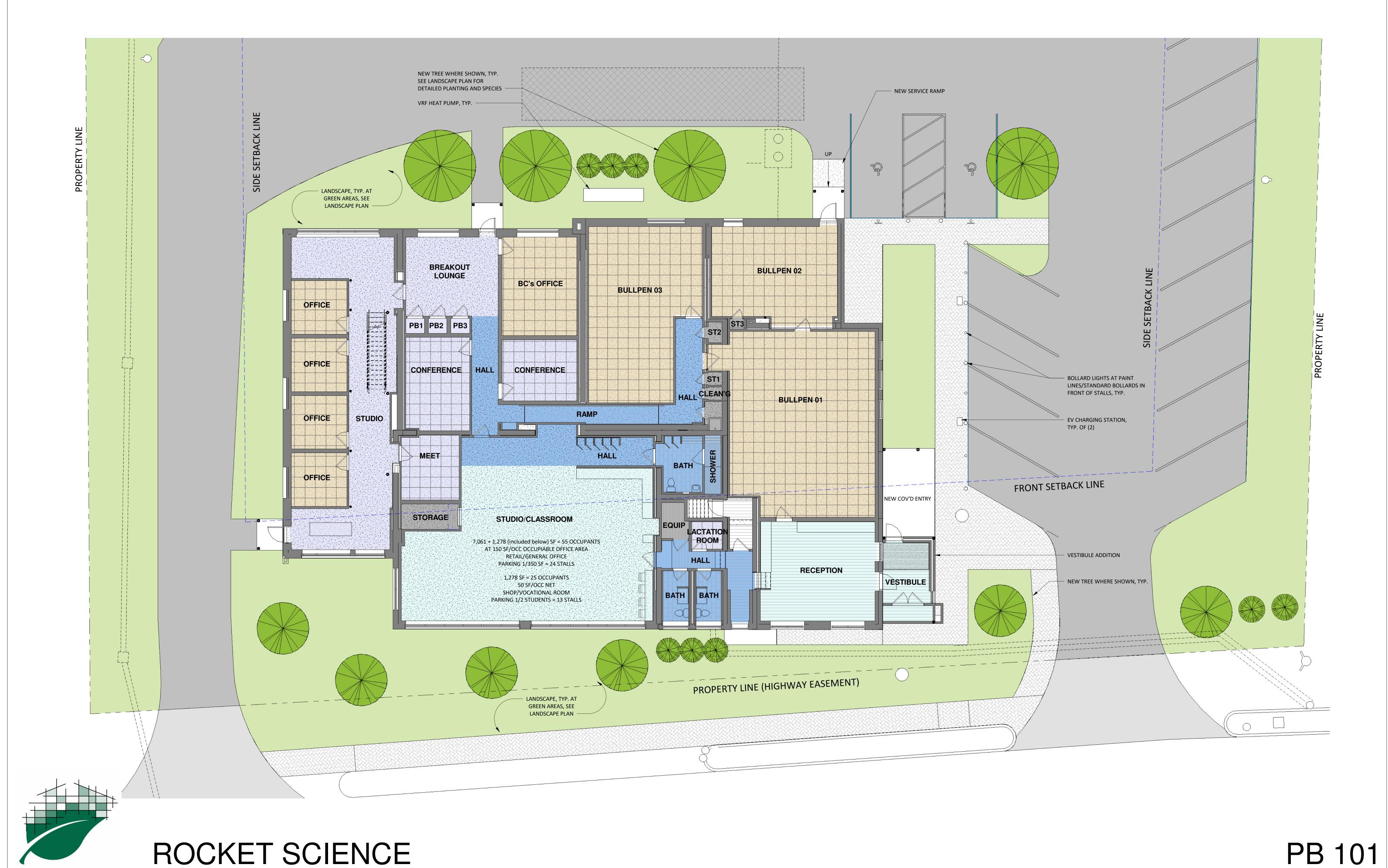
APPROVED APRIL 8, 2022

ISSUED UNDER EI 22-008

Robert Limoges
ROBERT LIMOGES, P.E.
DIRECTOR, OTSM

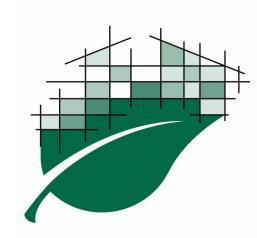
619-410

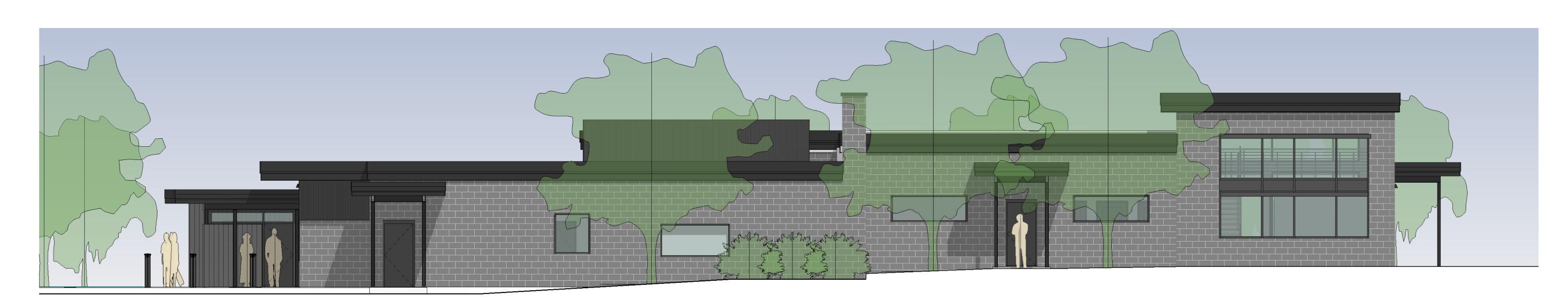


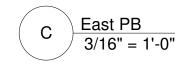






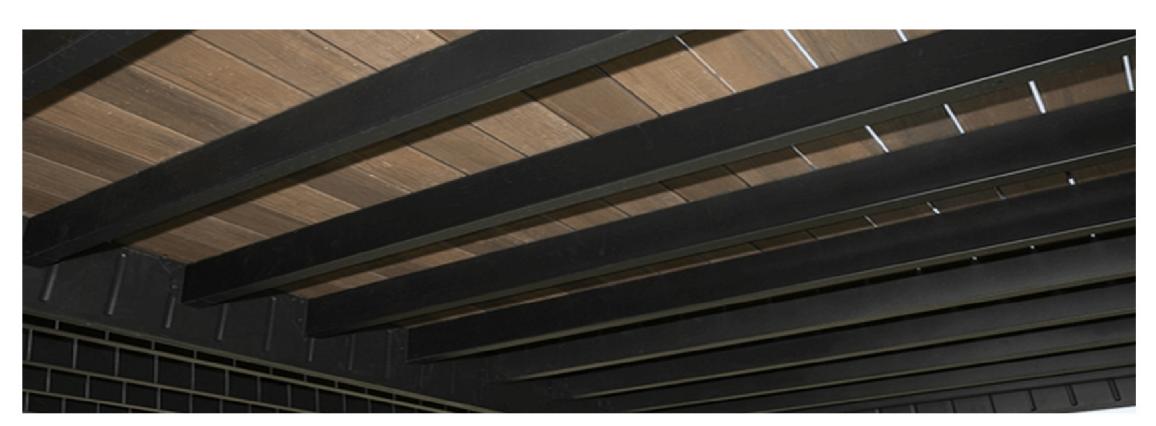




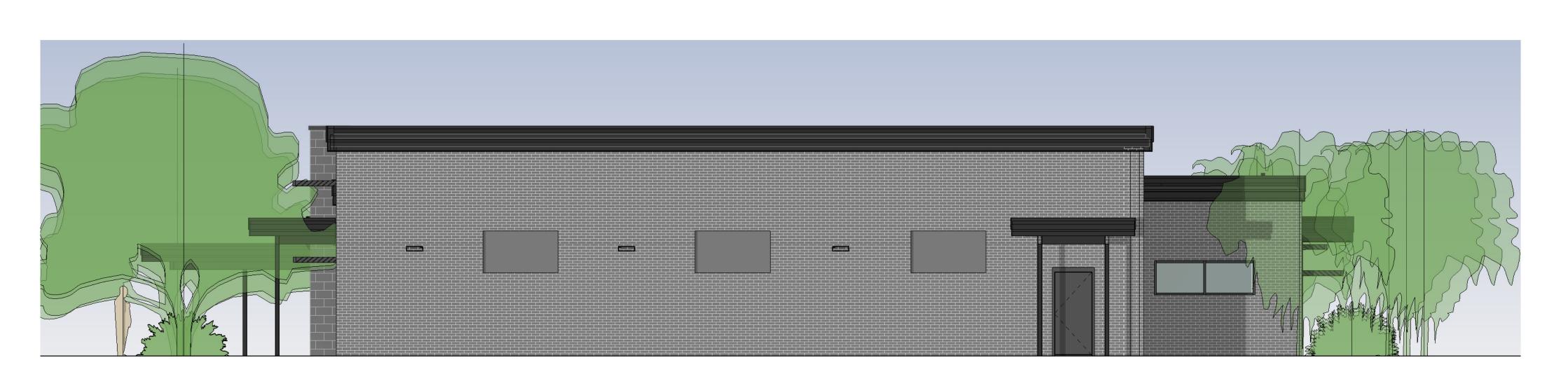


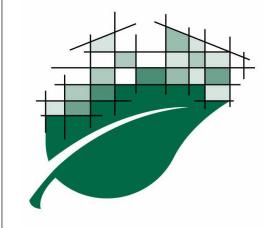


BLACK STOREFRONT GLAZING



BLACK STEEL AND WOOD ENTRY CANOPIES AND SHADE PERGOLA











WEATHERED GRAY COMPOSITE 'WOOD' RAINSCREEN



BLACK CURROGATED METAL CLADDING



DARK GRAY STAINED AND PAINTED BRICK AND CMU