ARCHITECTURE
ENGINEERING
PLANNING
CPLteam.com

64 Green Street, Suite 1 | Hudson, NY 12534 | 518.828.2300 | CPLteam.com

November 9, 2018

Ray Herrmann, Chairman
Town of New Lebanon Planning Board
P.O. Box 328
New Lebanon, NY 12125

Re: Nokomis LLC Planning Board Application
Special Permit with Site Plan Approval

Dear Chairman Herrmann,

CPL has been retained to provide Engineering services to Nokomis LLC. in support of their proposed school building at the Adams Crossing Road. Pursuant to the discussion at the October Planning Board meeting, there are currently three (3) tax parcels owned by Nokomis LLC on Adams Crossing Road. The applicant is in the process of combining those into one parcel, which would bring the parcel size to 8.62 acres. The three parcels are designated as tax parcel 104800-8-2-80, 104800-8-2-81, and 104800-8-2-82 on New Lebanon Tax Maps. The applicant would like to construct the new educational building to allow students to visit and learn about the local ecology and environment.

The school is proposed to be a two-story building with approximately 3,125 square feet of floor space on the first floor, containing three (3) classrooms on the first floor, while the second floor will contain approximately 2,000 square feet of floor area with a general-purpose room, soils lab and office. At this time, it is anticipated that the class room spaces will be leased to the Mountain Road School for use by its students. The general purposes room is anticipated to be utilized for the purposes of class trips from other area schools at the anticipated frequency of once per week.

The school is proposed to have a circular driveway to accommodate periodic bus traffic associated class trips. The circular driveway it anticipated to be one way, with one (1) entrance and one (1) exit from Adams Crossing Road. The school building will have nine (9) associated parking spots including one (1) handicapped parking space with appropriate signage and crosswalk. The parking lot is proposed to have one (1) pole mounted zero uplight and Nighttime Friendly lamp, that is consistent with LEED and Green Globes criteria for eliminiating wasteful uplight, shown on the lighting plan. Along with the parking lot lighting there will be overhead, wall-mounted down lighting units above each door. Around the building itself there is an assortment of landscaping proposed, including but not limited to trees, shrubs and flowering plants. The building will also be equipped with an ADA approved sidewalk. The building will be supplied with an on-site well and subsurface septic system. The proposed water supply will need to conform with the Part 5D standards as this school is considered a Non-Transient Non-Community Public Water Supply. The Columbia County Department of Health has witnessed soil tests and the on-site subsurface wastewater disposal system has been designed and submitted to their department for review and approval.

Please find enclosed herewith the following:

1. Eight (8) copies of the proposed site plan documents,

ARCHITECTURE
ENGINEERING
PLANNING
CPLteam.com

2. Eight (8) copies of the Revised Short Environmental Assessment Form,
3. Eight (8) copies of the Revised Planning Board Application,
4. Eight (8) copies of the stormwater report,
5. Eight Copies of proposed exterior lighting fixture cut sheets.
6. List of abutting properties owners and addresses.

At this time, we respectfully request to be placed on the agenda for your November 21st, 2018 Planning Board meeting so that we may make a formal presentation to you and the Board.

We look forward to the discussions at the upcoming meeting and working with your Board to move this application forward. A representative from CPL will be in attendance and will answer questions and concerns that you may have regarding this application.

Very truly yours,

CPL

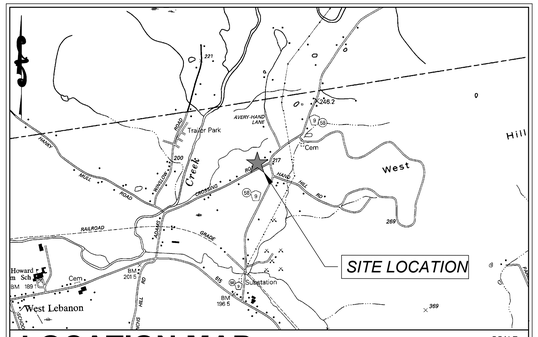
Bryce Recer
Civil Designer

cc: Paul McCreary, PB Engineer (via e-mail)
Donna Gedeon, PB Clerk (via e-mail)
Allen Stack, Applicant (via e-mail)

64 Green Street, Suite 1 | Hudson, NY 12534 | 518.828.2300 | CPLteam.com

NOKOMIS EDUCATIONAL CENTER

NOKOMIS, LLC
ADAMS CROSSING ROAD, NEW LEBANON
COLUMBIA COUNTY, NY
SEPTEMBER 2018
REVISED OCTOBER 2018



LOCATION MAP — SCALE 1"=2000'

APWA UNIFORM COLOR CODE
FOR MARKING
UNDERGROUND UTILITY LINES

WHITE	PROPOSED EXCAVATION
PINK	TEMPORARY SURVEY MARKINGS
RED	ELECTRICAL POWER LINES, CABLES CONDUIT AND LIGHTING CABLES
YELLOW	GAS, OIL, STEAM, PETROLEUM OR GASEOUS MATERIALS
ORANGE	COMMUNICATION, ALARM OR SIGNAL LINES CABLES, OR CONDUIT
BLUE	POTABLE WATER
PURPLE	RECLAIMED WATER, IRRIGATION AND SLURRY LINES
GREEN	SEWER & DRAIN LINES

CALL BEFORE YOU DIG!
Dig Safely NEW YORK
1-800-962-7962
www.digsafelynewyork.com

Dig Safely New York

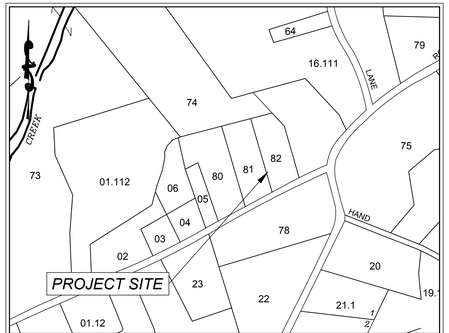
- Call Before You Dig
- Wait The Required Time
- Confirm Utility Response
- Respect The Marks
- Dig With Care

800-962-7962
www.digsafelynewyork.com

I-notice

- Create your own stake out-request on the internet, 24 hours a day, 7 days a week, 365 days a year
- The i-notice will satisfy all the requirements of an excavation notification as mandated by Code Rule 753
- No waiting on the phone
- Electronic maps are available to help pin point accurate dig site locations
- The only requirement is access to the internet and Microsoft Internet Explorer 4.0 or newer.
- Verbal transcription errors are eliminated.
- Self-paced on line tutorials and site training is available.
- The i-notice services is FREE!

Simply send an e-mail to: register@digsafelynewyork.com expressing your interest in participating in this innovative time efficient and user friendly method to create your OWN stake-out notice.



SITE MAPS — SCALE 1"=500'

DRAWING LIST

DRAWING TITLE	DRAWING NO.
TITLE SHEET:	G-000
FIRST FLOOR PLAN	A-101
SECOND FLOOR PLAN	A-102
BUILDING ELEVATIONS	A-200
BUILDING ELEVATIONS	A-201
SITE PLAN	C-200
LIGHTING & LANDSCAPING PLAN:	C-201
GRADING AND UTILITY PLAN:	C-202
EROSION & SEDIMENT CONTROL PLAN:	C-203
SITE NOTES:	C-800
SITE DETAILS 1:	C-801
SITE DETAILS 2:	C-802

RELEASED FOR PLANNING BOARD REVIEW & COMMENT ONLY
Not For Construction

REVISIONS

NO.	DATE	BY	CHKED	DESCRIPTION

64 GREEN STREET #1
HUDSON, NEW YORK 12534
TEL (518) 828-2300
FAX (518) 828-3963
CPLteam.com
ARCHITECTURE ▪ ENGINEERING ▪ PLANNING

NOKOMIS, LLC

TOWN OF NEW LEBANON COLUMBIA COUNTY, NY

DATE:	OCT 2018
DRAWN:	BGR
DESIGNED:	RJJ
CHECKED:	RJJ
SCALE:	AS NOTED

NOKOMIS EDUCATIONAL CENTER

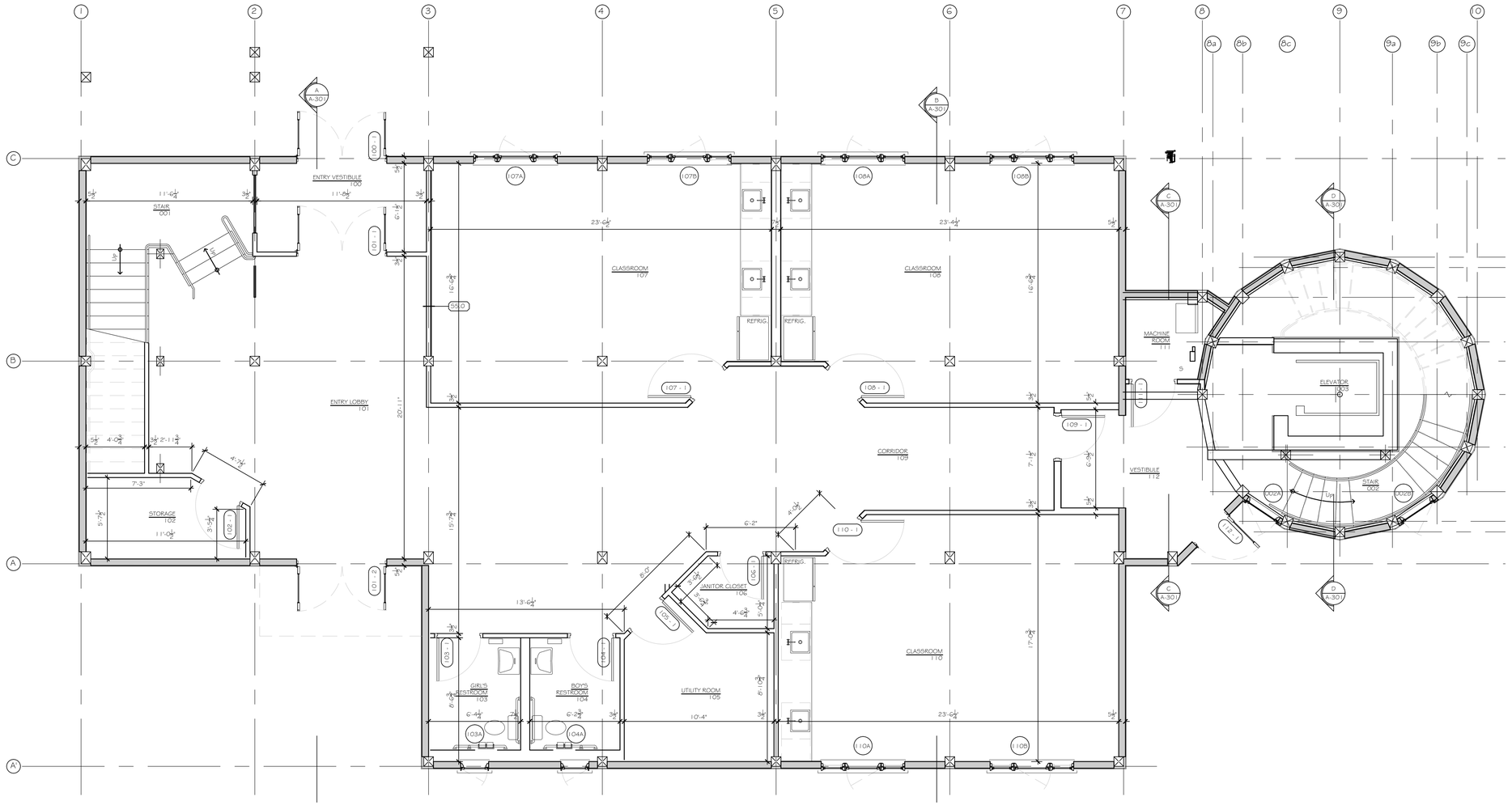
TITLE SHEET

PROJECT NUMBER 60041.0

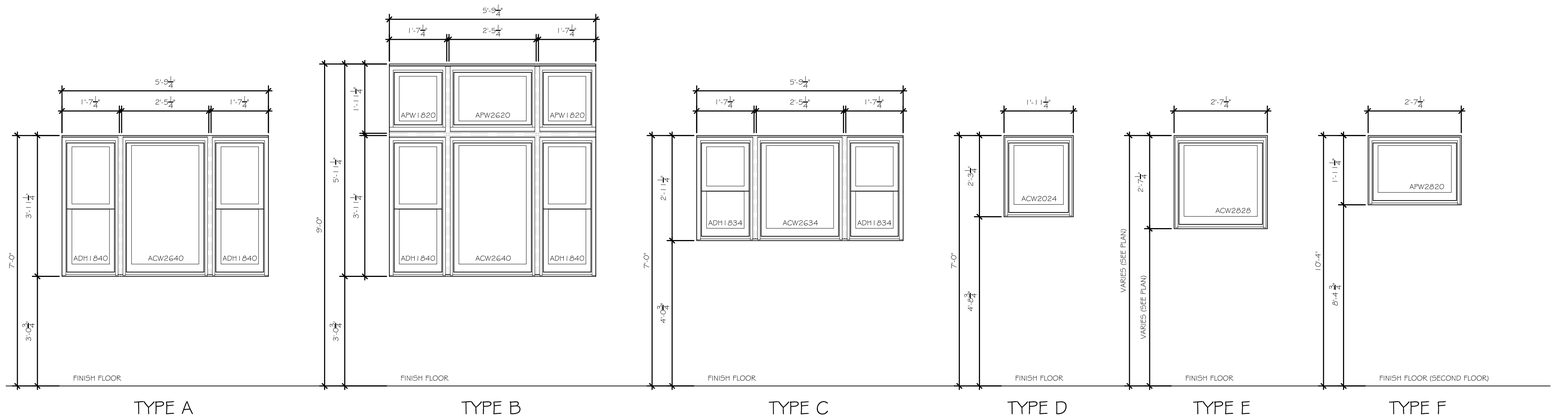
DRAWING NUMBER G-000

Referenced Drawings: None
Drawing Name: Y:\cdsk\Proj\218054 mountain rd school\218054 11-6.dwg
Date last accessed: 11/8/2018 1:53 PM
Plotted By: Bryce Recer
Date last plotted: 11/9/2018 9:18 AM

IT IS A VIOLATION OF THE NEW YORK STATE EDUCATION LAW AND THE COMMISSIONER'S REGULATIONS FOR ANY PERSON, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED ARCHITECT, ENGINEER OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF ANY ITEM BEARING THE SEAL OF AN ARCHITECT, ENGINEER OR SURVEYOR IS ALTERED, THE ALTERING PART SHALL AFFIX TO THE ITEM THEIR SEAL AND THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE AND THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION



FIRST FLOOR PLAN
SCALE: 1/4"=1'-0"



TYPE A | TYPE B | TYPE C | TYPE D | TYPE E | TYPE F

CPLteam.com
ARCHITECTURE ▪ ENGINEERING ▪ PLANNING

9 ELKS LANE
POUGHKEEPSIE, NEW YORK 12601
TEL (845) 454-3411
FAX (845) 473-1962

REVISIONS NO.	DATE	BY	DESCRIPTION

NOKOMIS
EDUCATIONAL CENTER
Nokomis, LLC
Columbia County NY
New Lebanon

DATE	DRAWN	CHECKED
10/10/18	TJG	RJJ

SCALE 1/4"=1'-0"

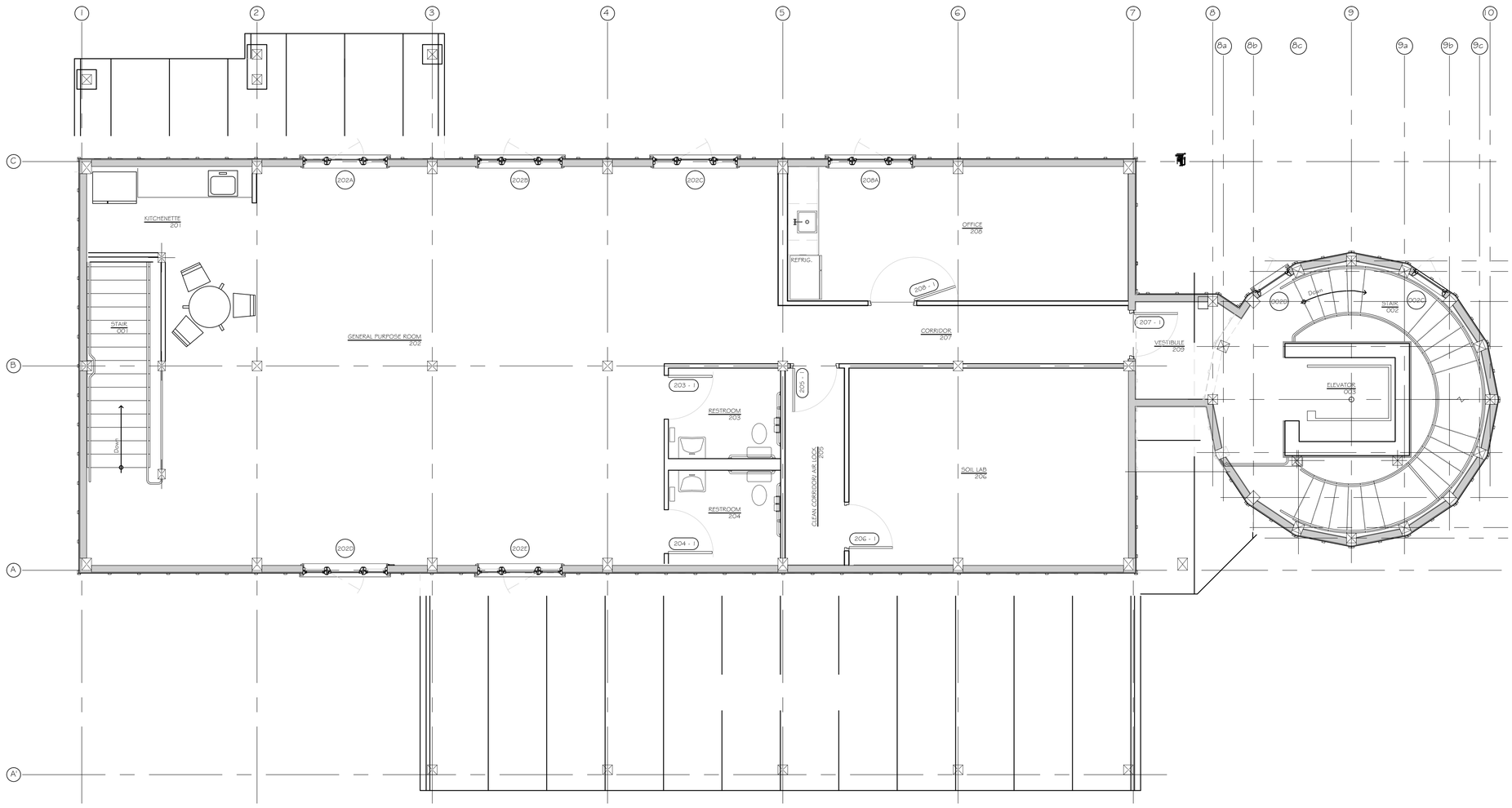
SHEET TITLE
FIRST FLOOR PLAN

PROJECT NUMBER
60041.10

A-101
DRAWING NUMBER

IT IS A VIOLATION OF NEW YORK STATE EDUCATION LAW AND THE COMMISSIONER'S REGULATIONS FOR ANY PERSON, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED ARCHITECT, ENGINEER OR SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF ANY ITEM BEARING THE SEAL OF AN ARCHITECT, ENGINEER OR SURVEYOR IS ALTERED, THE ALTERING ARCHITECT, ENGINEER OR SURVEYOR SHALL AFFIX TO THE ITEM HIS/HER SEAL AND THE NOTATION "ALTERED BY" FOLLOWED BY HIS/HER SIGNATURE AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

Plotted By: Timothy Gleason
Date last plotted: 10/26/2018 1:28 PM
Date last accessed: 10/25/2018 10:45 AM
Drawing Name: X:\Sdsk\Proj\218054\Architectural.dwg



SECOND FLOOR PLAN

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

CPLteam.com
ARCHITECTURE ▪ ENGINEERING ▪ PLANNING

9 ELKS LANE
POUGHKEEPSIE, NEW YORK 12601
TEL (845) 454-3411
FAX (845) 473-1962

REVISIONS NO.	DATE	BY	DESCRIPTION

NOKOMIS EDUCATIONAL CENTER

Nokomis, LLC

New Lebanon Columbia County NY

DATE	DRAWN	CHECKED
10/10/18	TJG	RJJ

SCALE 1/4"=1'-0"

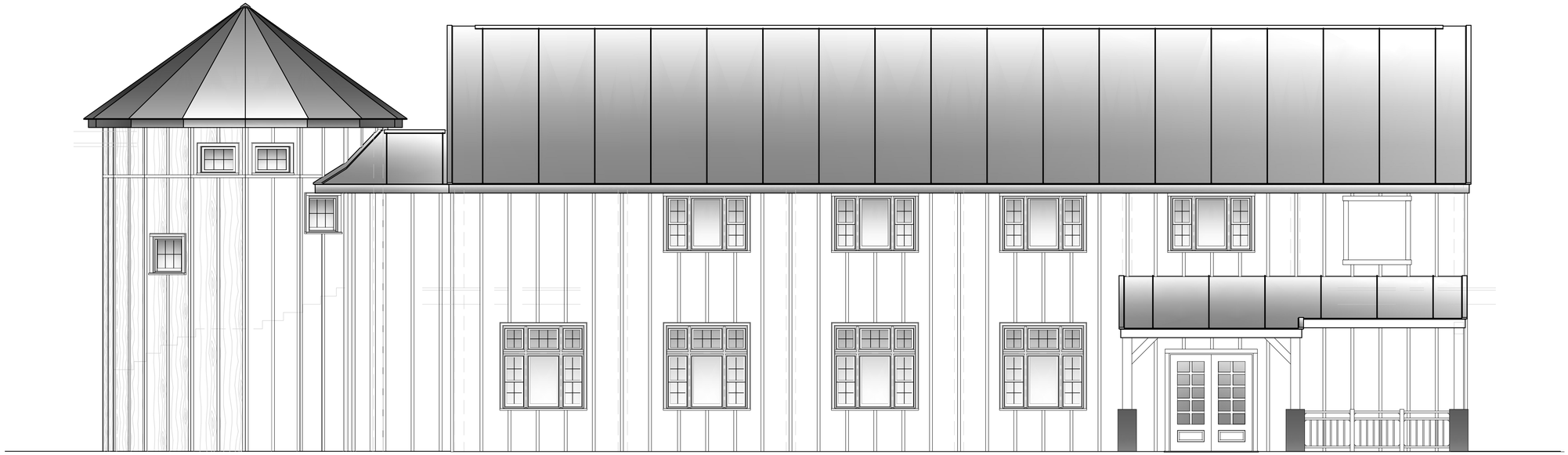
SHEET TITLE
SECOND FLOOR PLAN

PROJECT NUMBER
60041.10

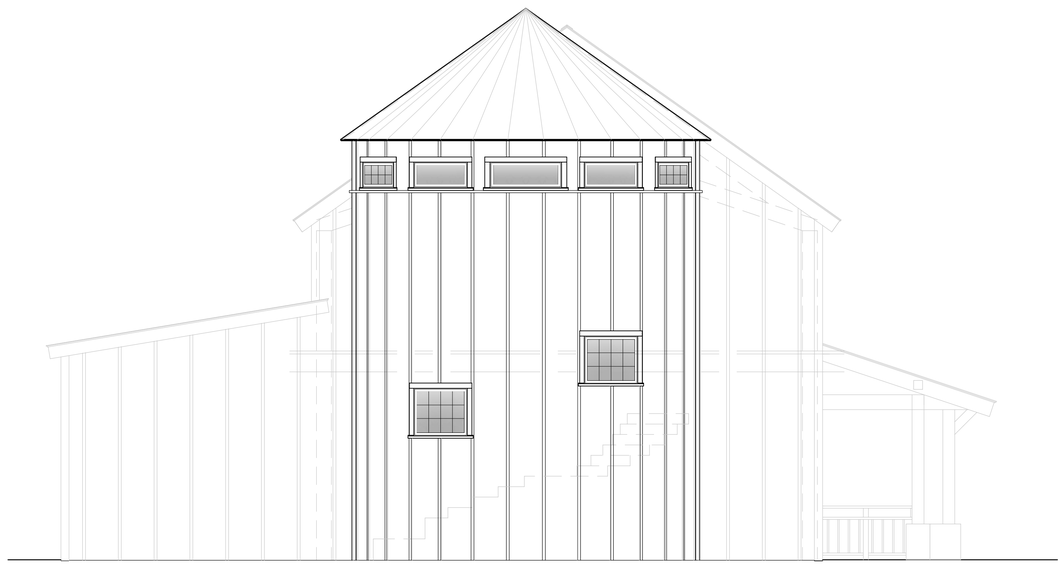
A-102
DRAWING NUMBER

IT IS A VIOLATION OF THE NEW YORK STATE EDUCATION LAW AND THE COMMISSIONER'S REGULATIONS FOR ANY PERSON, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED ARCHITECT, ENGINEER OR LAND SURVEYOR, TO ALTER ANY ITEM IN ANY WAY. IF AN ITEM BEARING THE SEAL OF AN ARCHITECT, ENGINEER OR SURVEYOR IS ALTERED, THE ALTERING PARTY SHALL AFFIX TO THE ITEM ITS OWN SEAL AND THE NOTATION "ALTERED BY" FOLLOWED BY HIS SIGNATURE AND A DESCRIPTION OF THE ALTERATION.

Plotted By: Timothy Gleason
Date last plotted: 10/26/2018 1:28 PM
Date last accessed: 10/25/2018 10:45 AM
Drawing Name: X:\Sdsk\Proj\218054\Architectural.dwg



SOUTH ELEVATION (FRONT)
SCALE: 1/4"= 1'-0"



WEST ELEVATION (LEFT SIDE)
SCALE: 1/4"= 1'-0"

CPLteam.com
ARCHITECTURE ▪ ENGINEERING ▪ PLANNING

9 ELKS LANE
POUGHKEEPSIE, NEW YORK 12601
TEL (845) 454-3411
FAX (845) 473-1962

REVISIONS NO.	DATE	BY	DESCRIPTION

NOKOMIS
EDUCATIONAL CENTER
Nokomis, LLC
New Lebanon Columbia County NY

DATE	DRAWN	CHECKED
10/10/18	TJG	RJJ

SCALE 1/4"=1'-0"

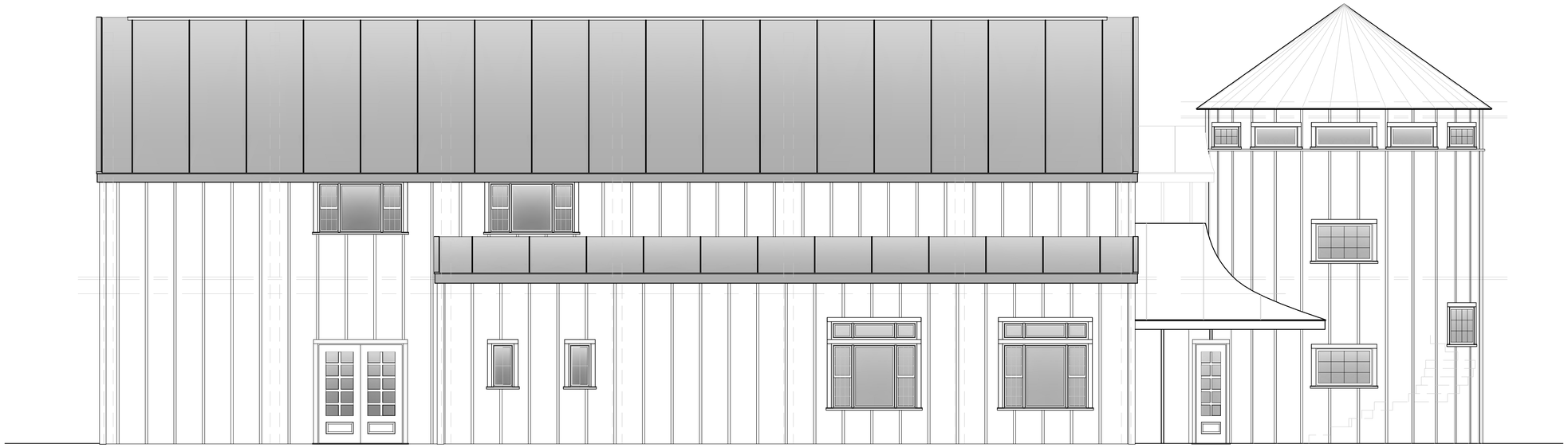
SHEET TITLE
EXTERIOR ELEVATIONS

PROJECT NUMBER
60041.10

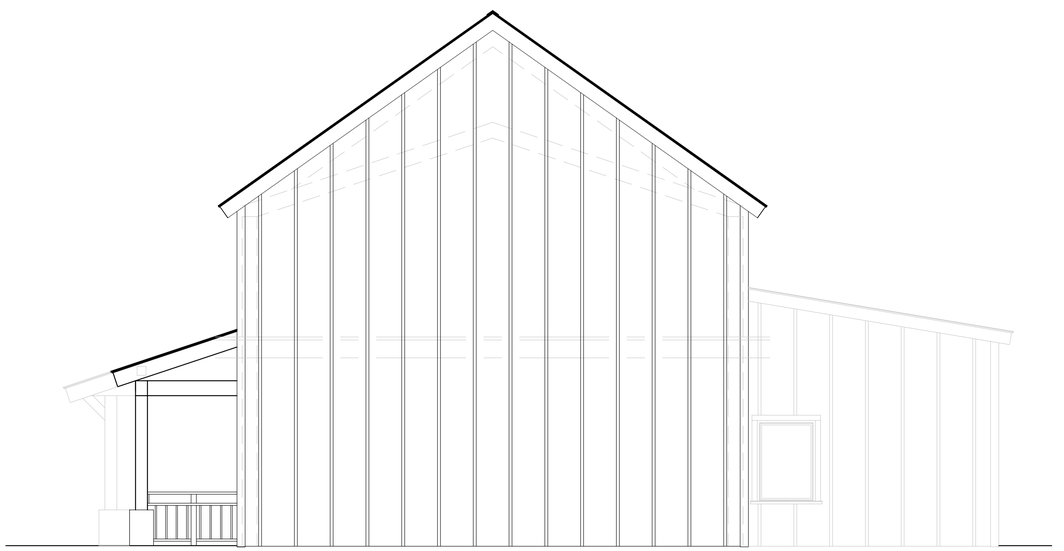
A-200
DRAWING NUMBER

IT IS A VIOLATION OF THE NEW YORK STATE EDUCATION LAW AND THE COMMISSIONER'S REGULATIONS FOR ANY PERSON, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED ARCHITECT, ENGINEER OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE SEAL OF AN ARCHITECT, ENGINEER OR LAND SURVEYOR IS ALTERED, THE ALTERING PARTY SHALL AFFIX TO THE ITEM ITS SEAL AND THE NOTATION "ALTERED BY" FOLLOWED BY HIS SIGNATURE AND THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

Plotted By: Timothy Gleason
Date last accessed: 10/25/2018 10:45 AM
Date last plotted: 10/25/2018 10:46 AM
Drawing Name: X:\Sdsk\Proj\218054\Architectural.dwg



NORTH ELEVATION (REAR)
SCALE: 1/4"= 1'-0"



EAST ELEVATION (RIGHT SIDE)
SCALE: 1/4"= 1'-0"

CPLteam.com
ARCHITECTURE ▪ ENGINEERING ▪ PLANNING

9 ELKS LANE
POUGHKEEPSIE, NEW YORK 12601
TEL (845) 454-3411
FAX (845) 473-1962

REVISIONS NO.	DATE	BY	DESCRIPTION

NOKOMIS EDUCATIONAL CENTER

Nokomis, LLC

New Lebanon Columbia County NY

DATE	DRAWN	CHECKED
10/10/18	TJG	RJJ

SCALE 1/4"=1'-0"

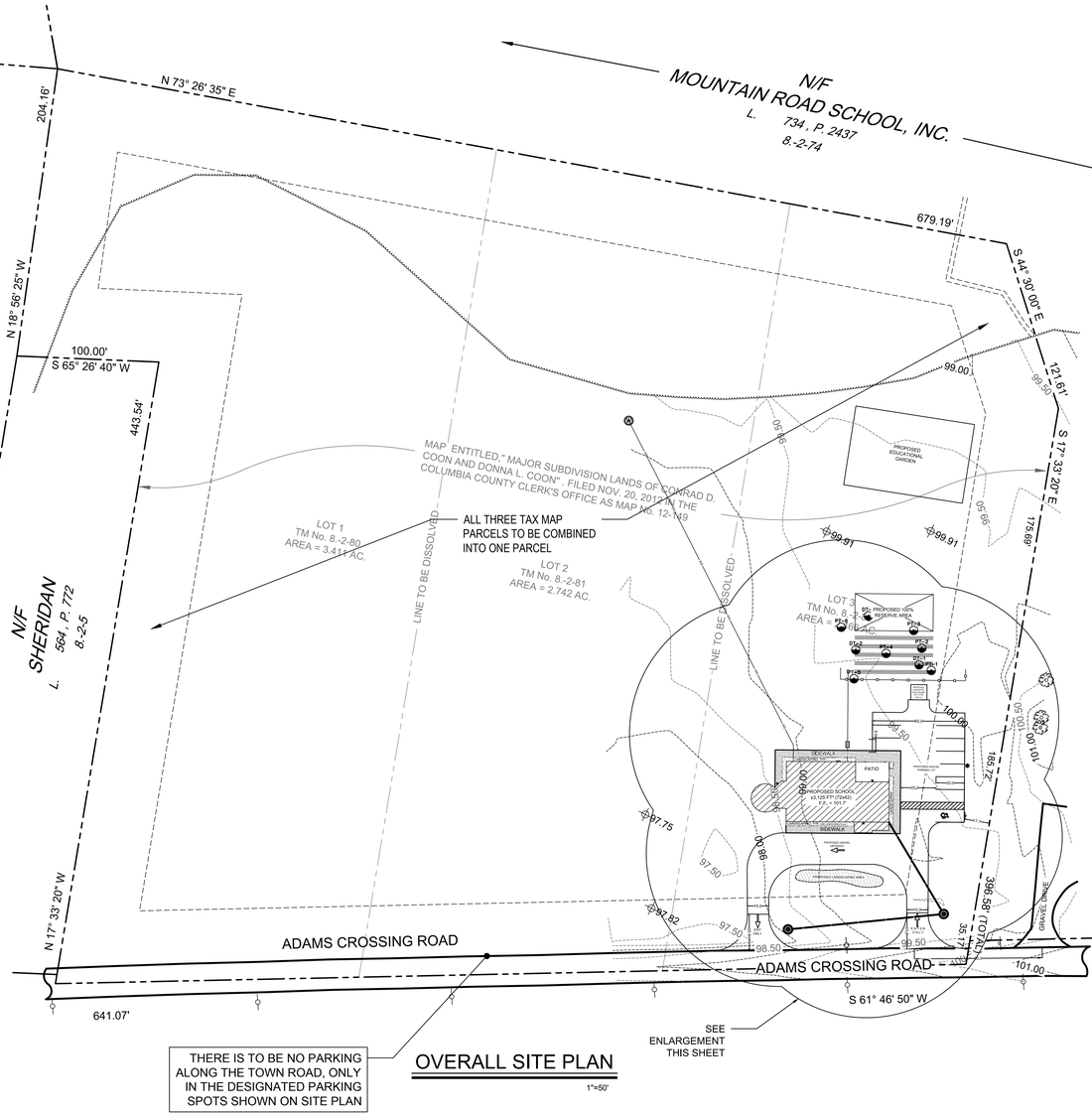
SHEET TITLE
EXTERIOR ELEVATIONS

PROJECT NUMBER
60041.10

A-201
DRAWING NUMBER

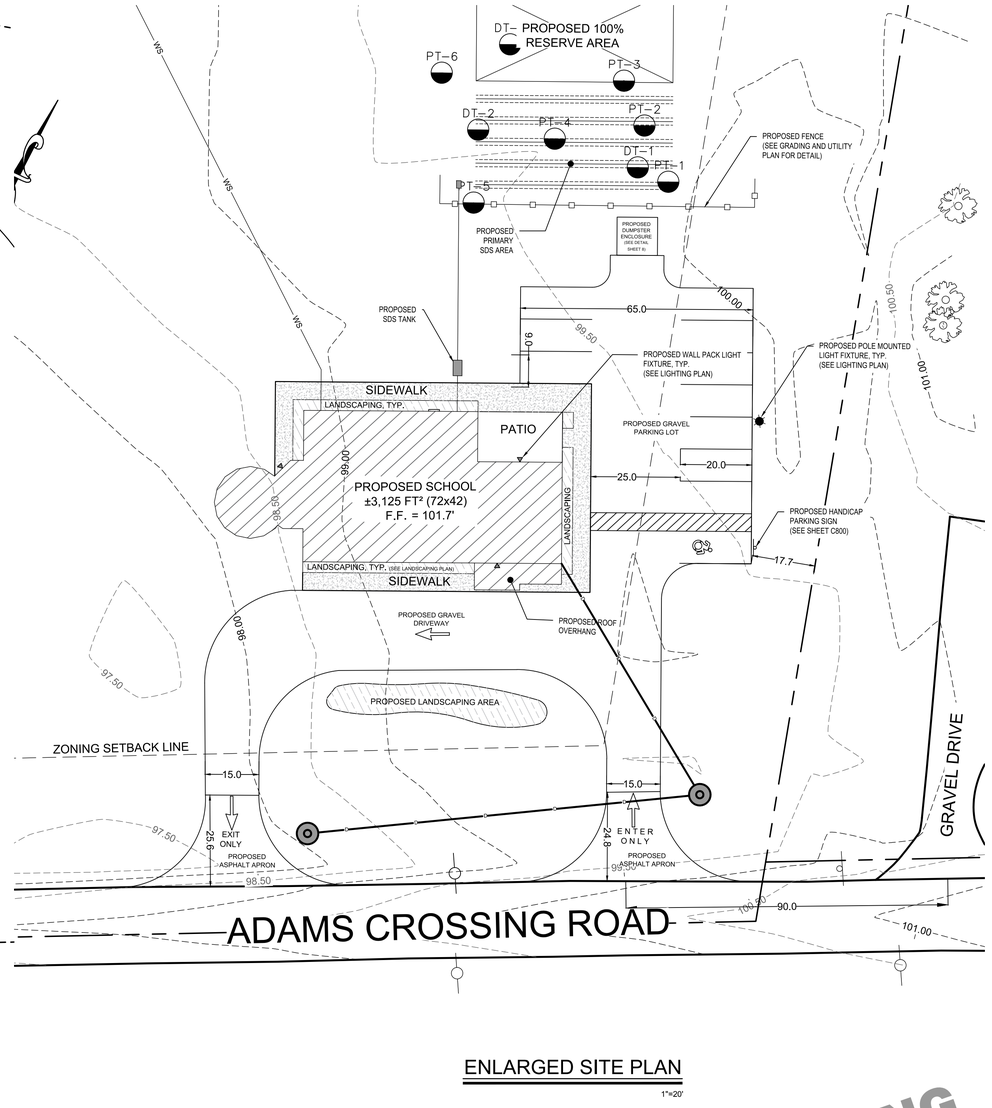
IT IS A VIOLATION OF THE NEW YORK STATE EDUCATION LAW AND THE COMMISSIONER'S REGULATIONS FOR ANY PERSON, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED ARCHITECT, ENGINEER OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE SEAL OF AN ARCHITECT, ENGINEER OR LAND SURVEYOR IS ALTERED, THE ALTERING PARTY SHALL AFFIX TO THE ITEM ITS SEAL AND THE NOTATION "ALTERED BY" FOLLOWED BY HIS SIGNATURE AND THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

Plotted By: Timothy Gleason
Date last accessed: 10/25/2018 10:45 AM
Date last plotted: 10/25/2018 10:46 AM
Drawing Name: X:\Sdsk\Proj\218054\Architectural.dwg



OVERALL SITE PLAN

1"=50'



ENLARGED SITE PLAN

1"=20'

DIMENSIONAL REGULATIONS RA 2 - RESIDENTIAL AGRICULTURAL 2	REQUIRED	PROVIDED
MINIMUM LOT AREA (ACRE)	2.0	8.62
MAXIMUM BLDG. COV. (SQUARE FEET)	4,000	3,024
MINIMUM LOT FRONTAGE (FEET)	60	641
MINIMUM FRONT YARD (FEET)	75	96
MINIMUM SIDE YARD (FEET)	50	63±
MINIMUM REAR YARD (FEET)	50	380 ±
MAXIMUM HEIGHT (FEET)	35	30
MINIMUM PARKING SPACES*	10	11

* REQUIRED PARKING BASED ON 1 SPACE PER EMPLOYEE AND 1 SPACE PER 10 STUDENTS. CH. 205 SECTION 205-9-A-12 ~ 3 TEACHERS, 1 STAFF, 56 STUDENTS = 9.6

OWNER/APPLICANT:

NOKOMIS LLC
P.O. BOX 695
NEW LEBANON, NY 12125

TAX MAP DESIGNATION:

8.-2-80, 8.-2-81, 8.-2-82

ACREAGE OF PARCEL:

PROJECT TOTAL: 8.62± ACRES

MAP NOTES:

1. *BOUNDARY SURVEY PERFORMED BY CPL.*
2. *AERIAL IMAGERY SHOWN HEREON IS AS OBTAINED FROM THE NYS GIS CLEARINGHOUSE.*
3. *TOPOGRAPHIC MAPPING PREPARED BY THIS FIRM ON OR BEFORE AUGUST 10, 2018. CONTOUR INTERVAL SHOWN IS 1/2 FOOT, REFERRED TO AN ASSUMED VERTICAL DATUM*
4. *THIS DRAWING INTENDED TO BE UTILIZED IN CONCERT WITH THE PROJECT CONTRACT AND SPECIFICATIONS DOCUMENTS, AND ALL APPLICABLE PROJECT DRAWINGS.*
5. *COORDINATE ELECTRIC, TELEPHONE, CABLE, ETC. WITH ALL APPLICABLE UTILITY COMPANIES. SECURE NECESSARY PERMITS AND APPROVALS FOR SAME.*

RELEASED FOR PLANNING BOARD REVIEW & COMMENT ONLY

Not For Construction

REVISIONS

NO.	DATE	BY	CHKED	DESCRIPTION

64 GREEN STREET #1
HUDSON, NEW YORK 12534
TEL (518) 828-2300
FAX (518) 828-3963
CPLteam.com
ARCHITECTURE ▪ ENGINEERING ▪ PLANNING

NOKOMIS, LLC

TOWN OF NEW LEBANON COLUMBIA COUNTY, NY

DATE:	OCT 2018
DRAWN:	BGR
DESIGNED:	RJJ
CHECKED:	RJJ
SCALE:	AS NOTED

NOKOMIS EDUCATIONAL CENTER

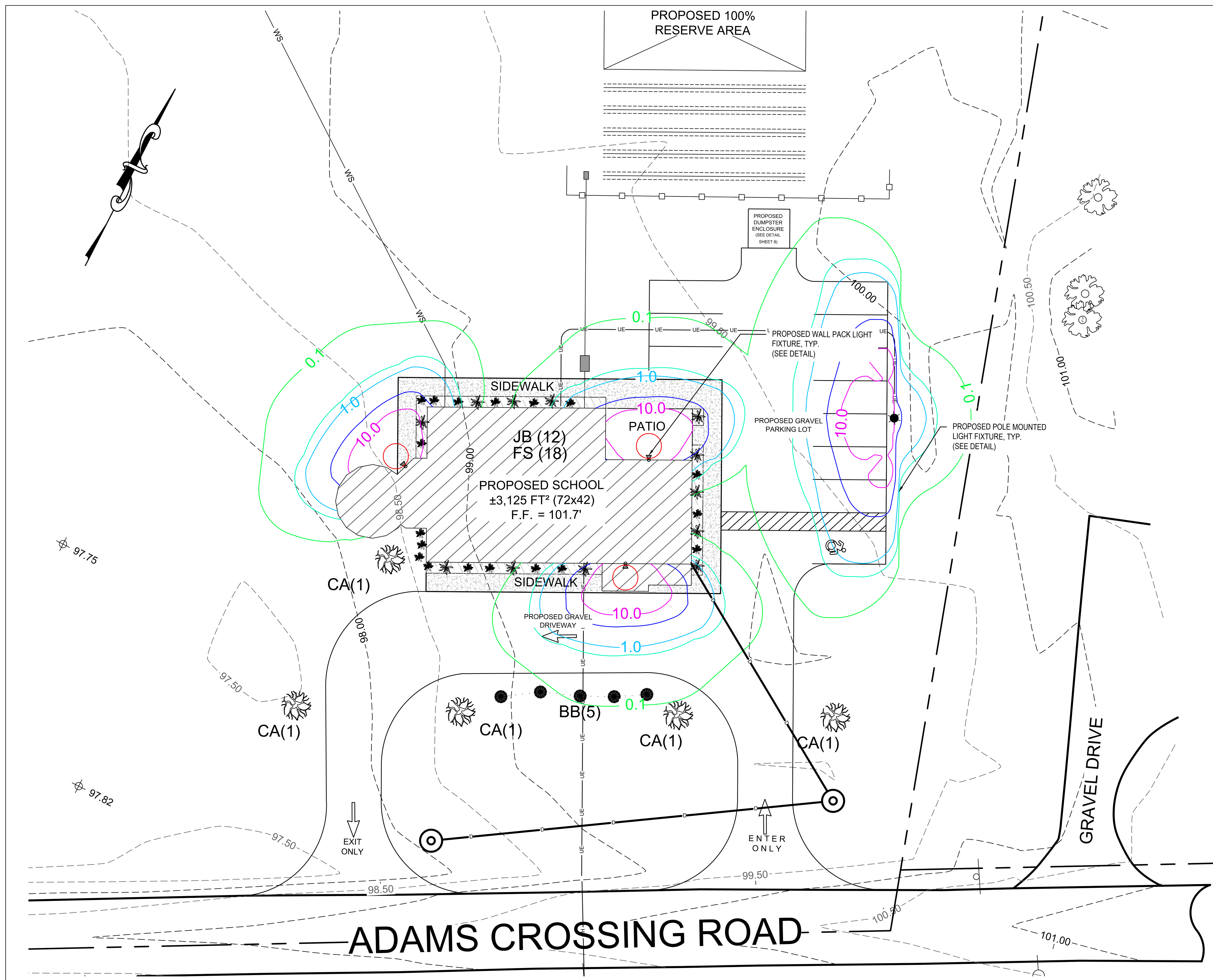
SITE PLAN

PROJECT NUMBER 60041.0

DRAWING NUMBER C-200

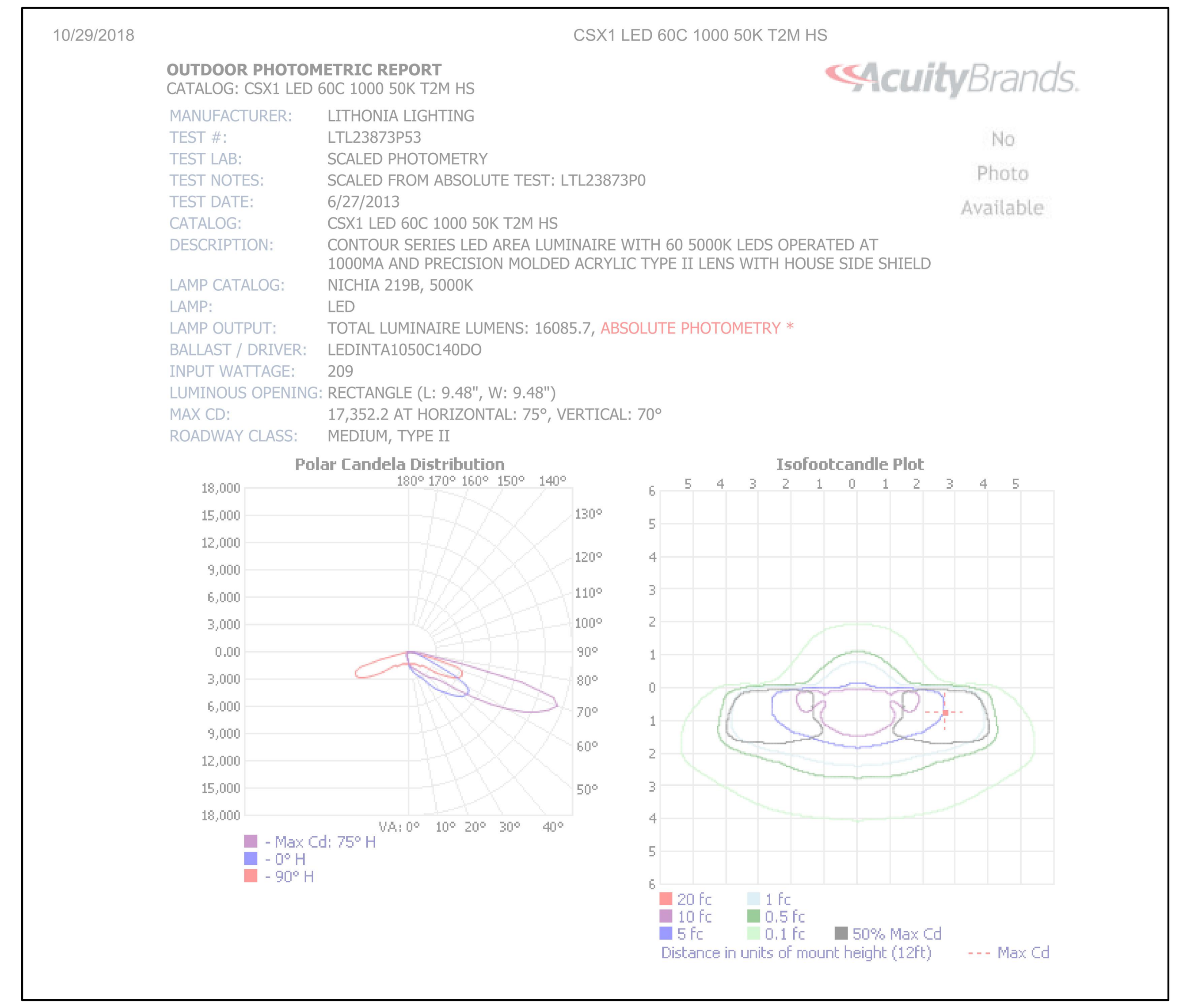
Referenced Drawings: None
Drawing Name: Y:\cdsk\Proj\218054 mountain rd school\218054 11-6.dwg
Date last accessed: 11/8/2018 11:53 PM
Date last plotted: 11/9/2018 9:18 AM
Plotted By: Bryce Recer

IT IS A VIOLATION OF THE NEW YORK STATE EDUCATION LAW AND THE COMMISSIONER'S REGULATIONS FOR ANY PERSON, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED ARCHITECT, ENGINEER OR LAND SURVEYOR, TO ALTER ANY ITEM IN ANY WAY. IF ANYONE ALTERS THIS DRAWING IN ANY WAY, THE ALTERING PARTY SHALL AFFIX TO THE DRAWING, IN A LOCATION NEAR THE SEAL AND THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE AND THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.



COMBINED LANDSCAPING & LIGHTING PLANS

SCALE: 1"=20'



10/29/2018 CSX1 LED 60C 1000 50K T2M HS

OUTDOOR PHOTOMETRIC REPORT
CATALOG: CSX1 LED 60C 1000 50K T2M HS

AcuityBrands.

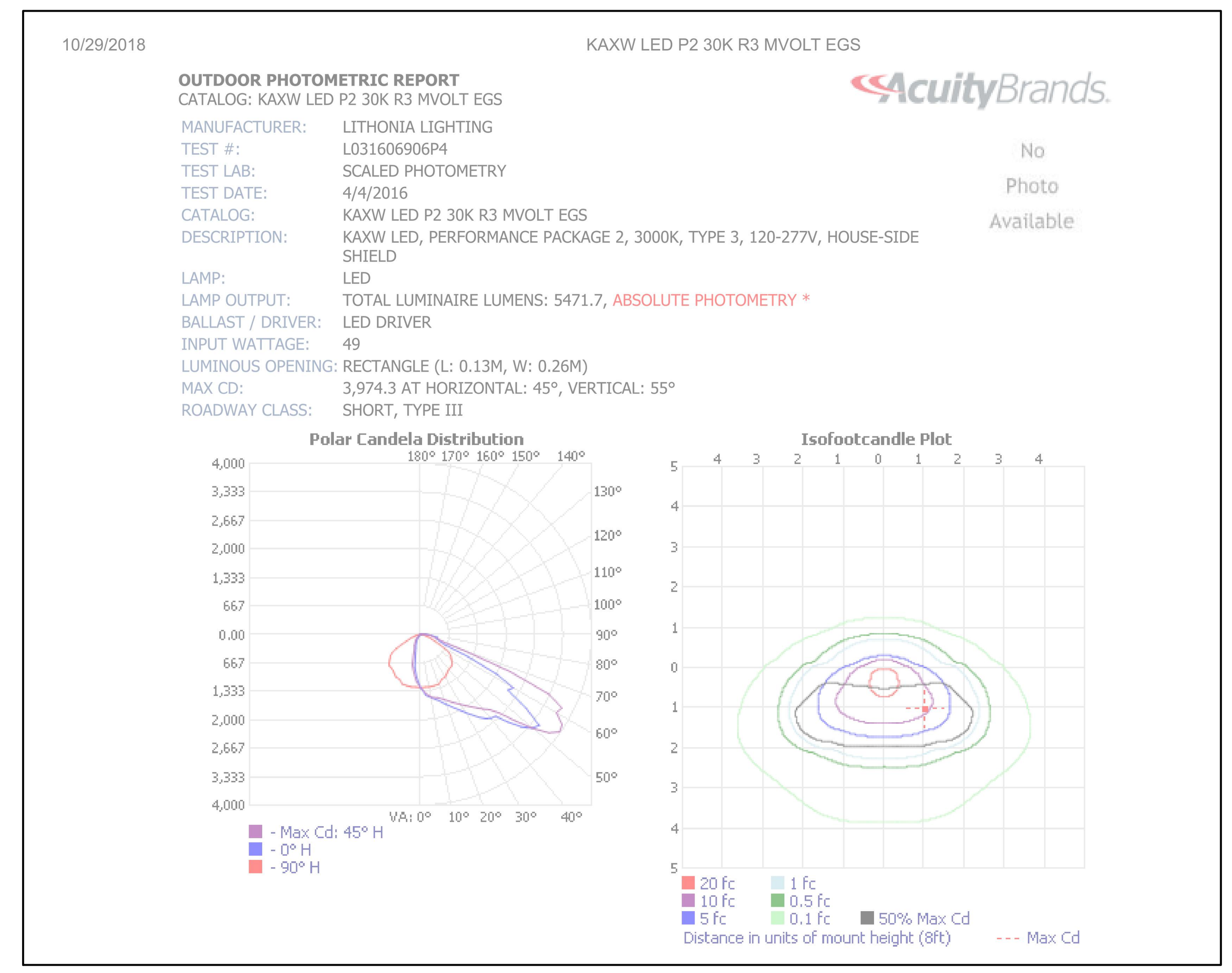
No Photo Available

MANUFACTURER: LITHONIA LIGHTING
TEST #: LTL23873P53
TEST LAB: SCALED PHOTOMETRY
TEST NOTES: SCALED FROM ABSOLUTE TEST: LTL23873P0
TEST DATE: 6/27/2013
CATALOG: CSX1 LED 60C 1000 50K T2M HS
DESCRIPTION: CONTOUR SERIES LED AREA LUMINAIRE WITH 60 5000K LEDS OPERATED AT 1000MA AND PRECISION MOLDED ACRYLIC TYPE II LENS WITH HOUSE SIDE SHIELD
LAMP CATALOG: NICHIA 219B, 5000K
LAMP: LED
LAMP OUTPUT: TOTAL LUMINAIRE LUMENS: 16085.7, ABSOLUTE PHOTOMETRY *
BALLAST / DRIVER: LEDINTA1050C140DO
INPUT WATTAGE: 209
LUMINOUS OPENING: RECTANGLE (L: 9.48", W: 9.48")
MAX CD: 17,352.2 AT HORIZONTAL: 75°, VERTICAL: 70°
ROADWAY CLASS: MEDIUM, TYPE II

Polar Candela Distribution — Max Cd: 75° H; 0° H; 90° H

Isofootcandle Plot — 20 fc, 10 fc, 5 fc, 1 fc, 0.5 fc, 0.1 fc, 50% Max Cd; Distance in units of mount height (12ft); Max Cd

PROPOSED POLE MOUNTED LIGHT FIXTURES



10/29/2018 KAXW LED P2 30K R3 MVOLT EGS

OUTDOOR PHOTOMETRIC REPORT
CATALOG: KAXW LED P2 30K R3 MVOLT EGS

AcuityBrands.

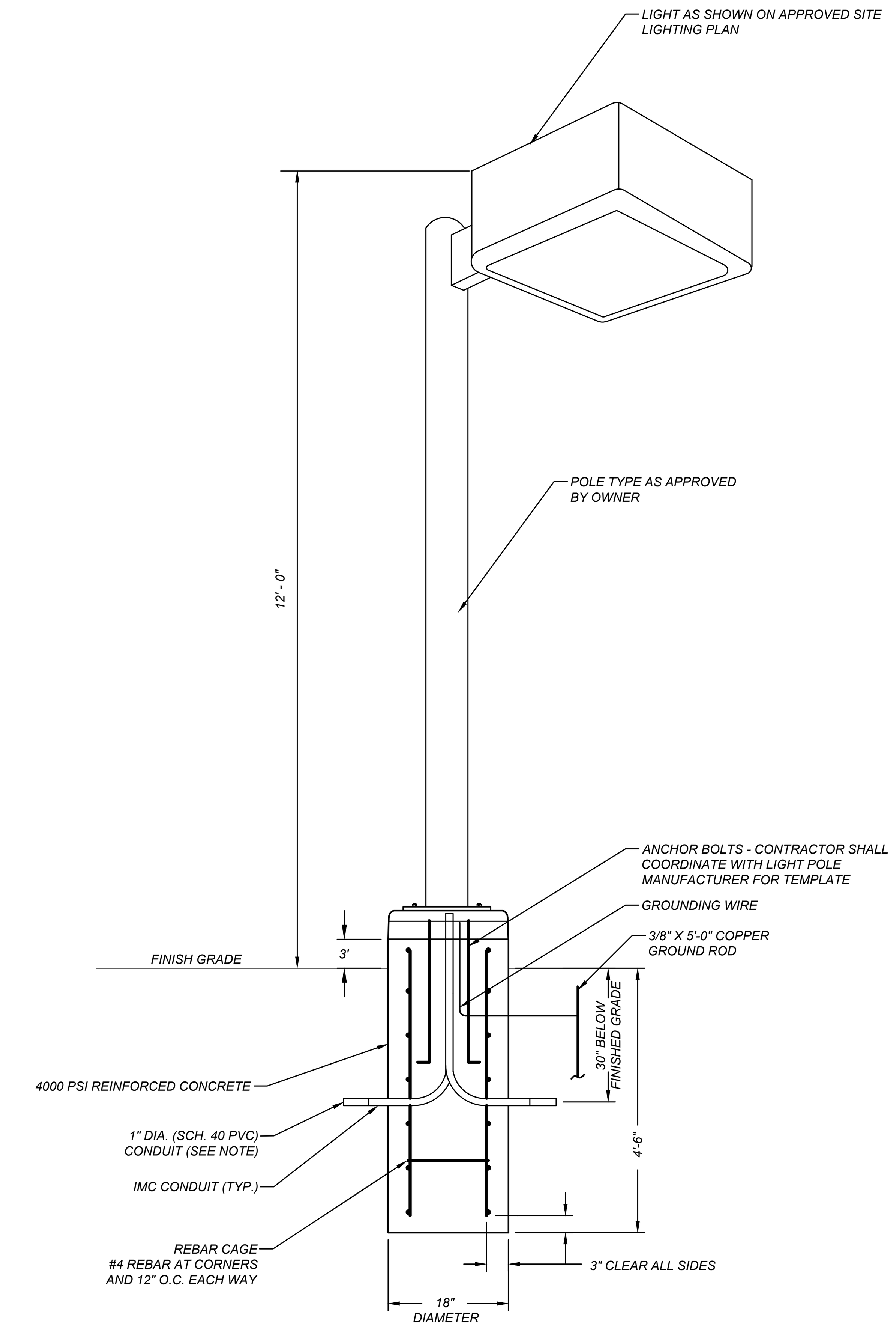
No Photo Available

MANUFACTURER: LITHONIA LIGHTING
TEST #: L031606906P4
TEST LAB: SCALED PHOTOMETRY
TEST DATE: 4/4/2016
CATALOG: KAXW LED P2 30K R3 MVOLT EGS
DESCRIPTION: KAXW LED, PERFORMANCE PACKAGE 2, 3000K, TYPE 3, 120-277V, HOUSE-SIDE SHIELD
LAMP: LED
LAMP OUTPUT: TOTAL LUMINAIRE LUMENS: 5471.7, ABSOLUTE PHOTOMETRY *
BALLAST / DRIVER: LED DRIVER
INPUT WATTAGE: 49
LUMINOUS OPENING: RECTANGLE (L: 0.13M, W: 0.26M)
MAX CD: 3,974.3 AT HORIZONTAL: 45°, VERTICAL: 55°
ROADWAY CLASS: SHORT, TYPE III

Polar Candela Distribution — Max Cd: 45° H; 0° H; 90° H

Isofootcandle Plot — 20 fc, 10 fc, 5 fc, 1 fc, 0.5 fc, 0.1 fc, 50% Max Cd; Distance in units of mount height (8ft); Max Cd

PROPOSED WALL PACK LIGHT FIXTURES



ADDITIONAL POLE FEATURES:

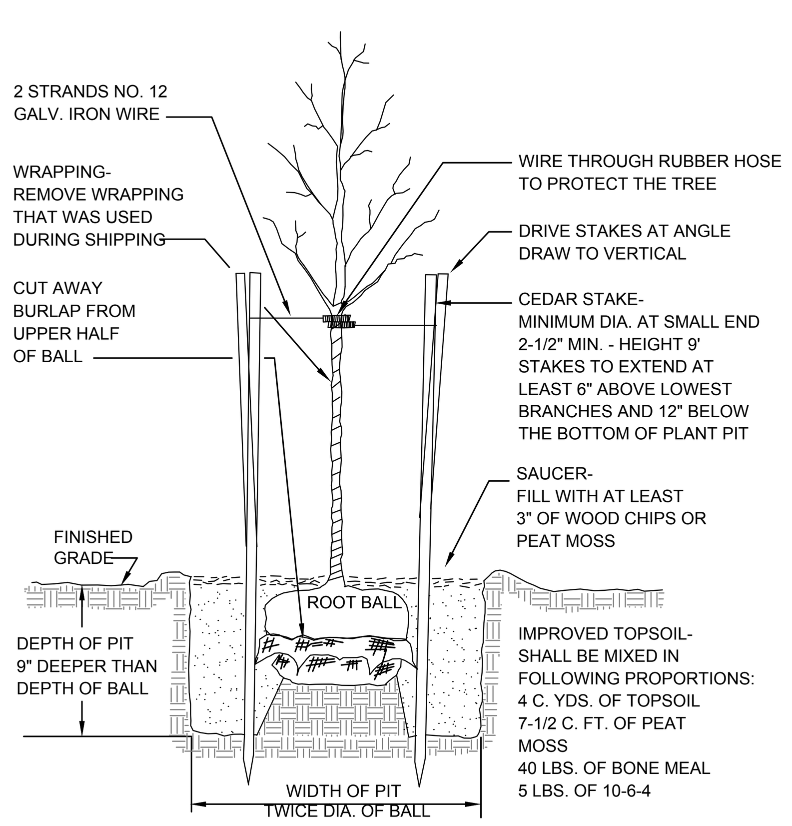
1. PROVIDE WEATHERPROOF RECEPTACLE AND COVER.
2. PROVIDE UPLIGHT SHIELD.

NOTES:

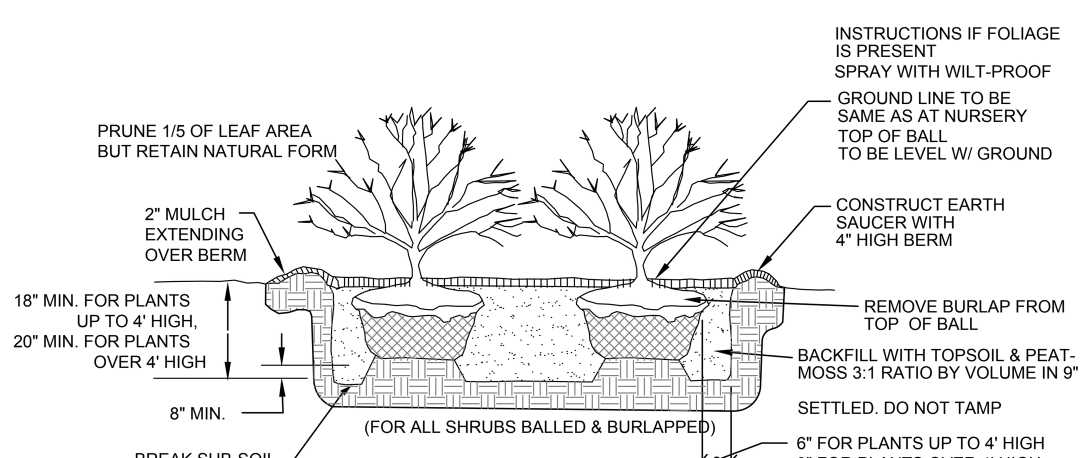
1. ELECTRICAL CONTRACTOR TO DETERMINE SIZE OF CONDUIT REQUIRED TO COMPLETE THE INSTALLATION.
2. PROVIDE 2 COPIES OF SHOP DRAWINGS FOR BASE, POLE, AND FIXTURE TO ENGINEER FOR APPROVAL PRIOR TO ORDERING MATERIAL.

TYPICAL CONCRETE LIGHT BASE DETAIL

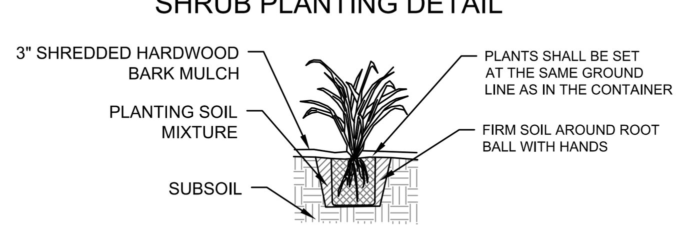
N.T.S.



DECIDUOUS TREE



SHRUB PLANTING DETAIL



NOTES:

1. SPADED PLANTING SOIL MIX (4"-6" DEPTH), ADD FERTILIZER WHEN MIXING. DO NOT COMPACT.
2. WATER THOROUGHLY AFTER PLANTING.
3. PROVIDE WELL DRAINING SUBSOIL WHEN SOIL IS HEAVY OR COMPACTED.
4. PLANTS SHALL BE REMOVED FROM ALL CONTAINERS WHEN PLANTED, UNLESS OTHERWISE STATED IN THE PLANT SCHEDULE.

CONTAINERIZED PLANTING DETAIL

N.T.S.

~ PLANT KEY ~

SYMBOL		QTY.	COMMON NAME	BOTANICAL NAME	SIZE
TREES DECIDUOUS	CA	5	CRABAPPLE	MALUS CORONARIA	2-2 1/2" CAL
SHRUB	BB	5	BURNING BUSH	EUONYMUS ATROPURUREUS	3 GAL.
	JB	12	JUNIPER BROADMOOR	JUNIPERUS SABINA	3 GAL.
	FS	18	FRAGRANT SUMMAC	RHUS AROMATICA GRO LOW	4" PEAT POT

RELEASED FOR PLANNING BOARD REVIEW & COMMENT ONLY
Not For Construction

REVISIONS				
NO.	DATE	BY	CHKED	DESCRIPTION

64 GREEN STREET #1
HUDSON, NEW YORK 12534
TEL (518) 828-2300
FAX (518) 828-3963
CPLteam.com
ARCHITECTURE ▪ ENGINEERING ▪ PLANNING

NOKOMIS, LLC

TOWN OF NEW LEBANON COLUMBIA COUNTY, NY

DATE: OCT 2018
DRAWN: BGR
DESIGNED: RJJ
CHECKED: RJJ
SCALE: AS NOTED

NOKOMIS EDUCATIONAL CENTER

COMBINED LIGHTING & LANDSCAPING PLAN

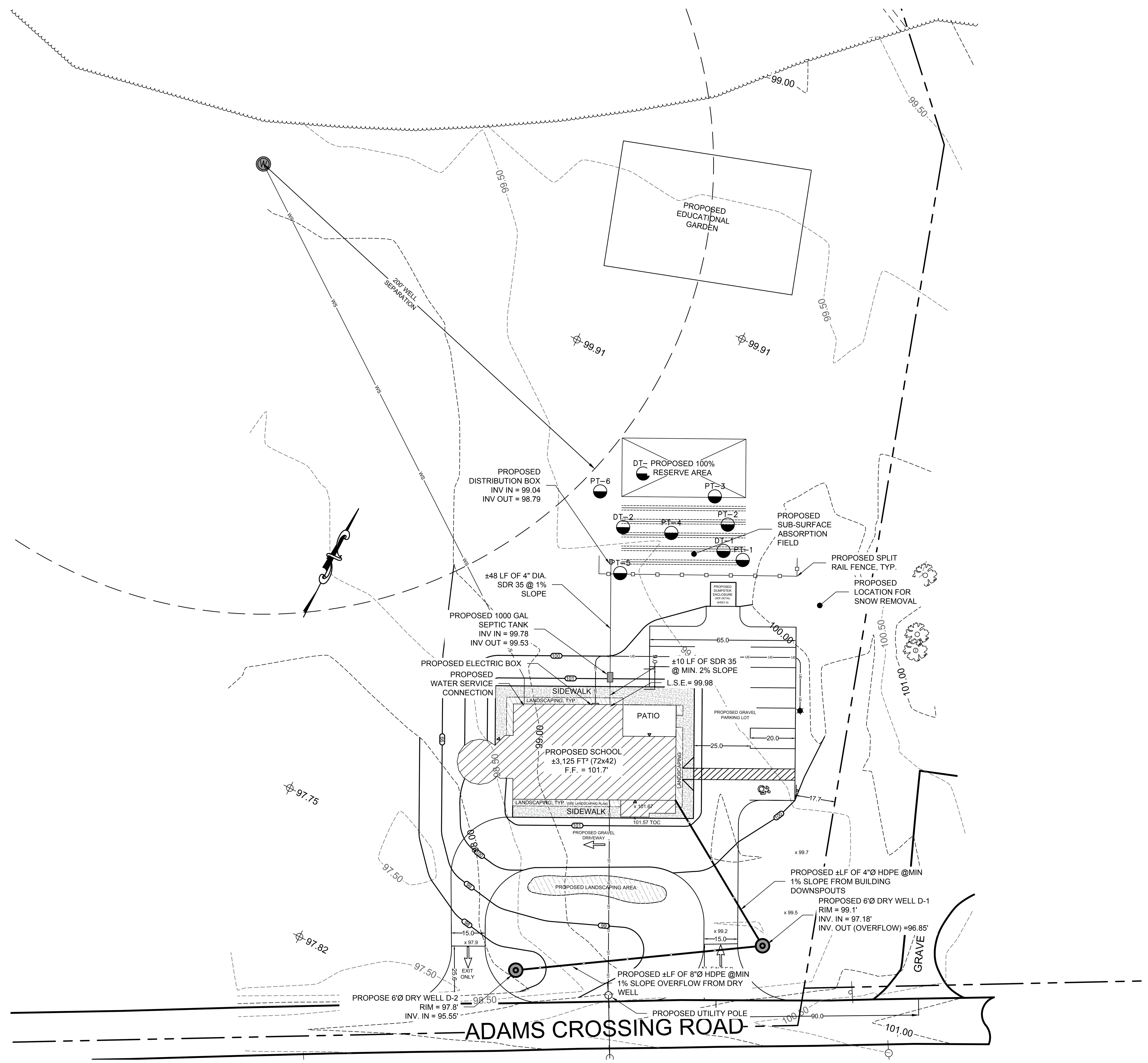
PROJECT NUMBER 60041.0

DRAWING NUMBER C-201

Plotted By: Bryce Recer
Date last plotted: 11/9/2018 9:18 AM
Date last accessed: 11/8/2018 1:53 PM
Drawing Name: Y:\sdsk\Proj\218054 mountain rd school\218054 11-6.dwg
Referenced Drawings: None

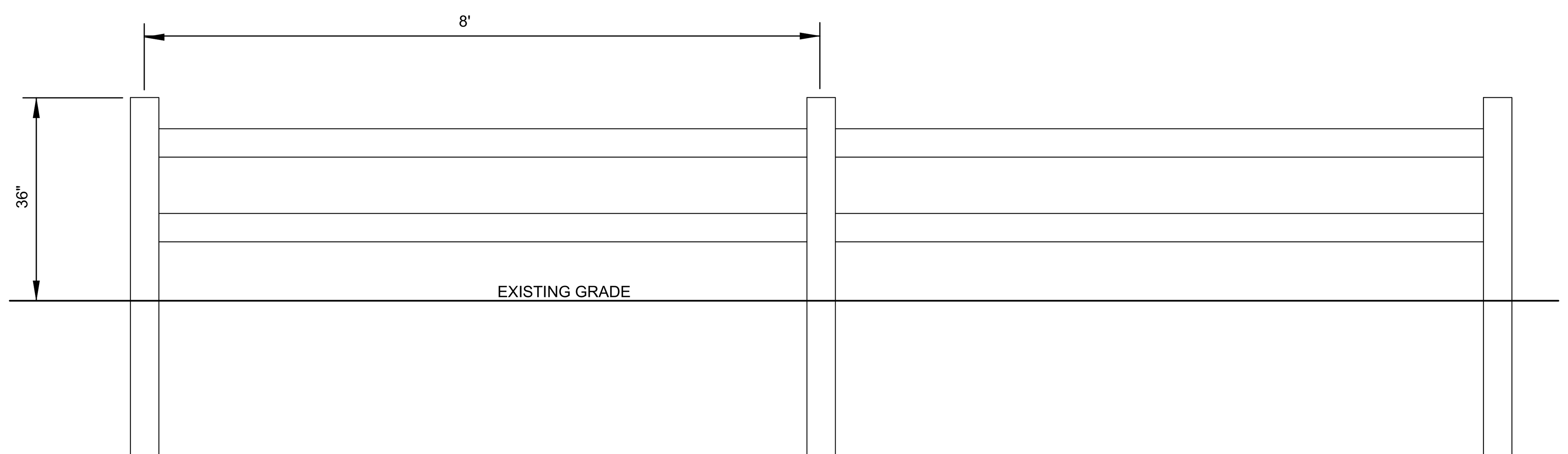
IT IS A VIOLATION OF THE NEW YORK STATE EDUCATION LAW AND THE COMMISSIONER'S REGULATIONS FOR ANY PERSON, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED ARCHITECT, ENGINEER OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE SEAL OF AN ARCHITECT, ENGINEER OR SURVEYOR IS ALTERED, THE ALTERING PARTY SHALL AFFIX TO THE ITEM THEIR SEAL AND THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE AND THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

Plotted By: Bryce Recer
Date last plotted: 11/9/2018 9:18 AM
Date last accessed: 11/8/2018 1:53 PM
Drawing Name: Y:\sdsk\Proj\218054 mountain rd school\218054 11-6.dwg
Referenced Drawings: None



GRADING AND UTILITY PLAN

1"=30'



SPLIT RAIL FENCE DETAIL

N.T.S.

MAP NOTES:

1. BOUNDARY SURVEY PERFORMED BY CPL.
2. AERIAL IMAGERY SHOWN HEREON IS AS OBTAINED FROM THE NYS GIS CLEARINGHOUSE.
3. TOPOGRAPHIC MAPPING PREPARED BY THIS FIRM ON OR BEFORE AUGUST 10, 2018. CONTOUR INTERVAL SHOWN IS 1/2 FOOT, REFERRED TO AN ASSUMED VERTICAL DATUM
4. PROPOSED CONTOUR INTERVAL IS SHOWN AT 1 FOOT CONTOURS.
5. THIS DRAWING INTENDED TO BE UTILIZED IN CONCERT WITH THE PROJECT CONTRACT AND SPECIFICATIONS DOCUMENTS, AND ALL APPLICABLE PROJECT DRAWINGS.
6. COORDINATE ELECTRIC, TELEPHONE, CABLE, ETC. WITH ALL APPLICABLE UTILITY COMPANIES. SECURE NECESSARY PERMITS AND APPROVALS FOR SAME.

ON-SITE SEWAGE DISPOSAL SYSTEM NOTES:

1. SANITARY FACILITIES MAY BE CONSTRUCTED ONLY AFTER APPROVAL HAS BEEN GRANTED BY THE CCDOH. THESE FACILITIES SHALL NOT BE PLACED IN OPERATION UNTIL A CCDOH CERTIFICATE HAS BEEN ISSUED. CONTACT THE APPROPRIATE CCDOH REPRESENTATIVE REGARDING THE PROCEDURES INVOLVED.
2. A LICENSED DESIGN PROFESSIONAL SHALL SUPERVISE SYSTEM INSTALLATION; CERTIFY CONSTRUCTION IN ACCORDANCE WITH THE APPROVED PLAN AND FURNISH "AS-BUILT" PLAN PRIOR TO CCDOH CERTIFICATION.
3. INSPECTIONS OF SANITARY FACILITY CONSTRUCTION SHALL BE CONDUCTED JOINTLY BY A LICENSED DESIGN PROFESSIONAL AND CCDOH REPRESENTATIVE:
   A) PRIOR TO BACKFILLING DISPOSAL SYSTEM COMPONENTS.
   B) AFTER ADJUSTMENT OF THE PUMP OR SIPHON CHAMBER, IF REQUIRED.
4. ANY EXISTING OR PROPOSED WATER SUPPLY OR SEWAGE TREATMENT FACILITIES MUST BE SHOWN WITHIN A TWO HUNDRED (200) FOOT RADIUS OF THE PROPOSED FACILITIES.
5. NO ROOF, FLOOR, FOOTING, COOLING WATER, SOFTENER BACKWASH, ETC. SHALL BE CONNECTED TO THE SEWAGE DISPOSAL SYSTEM AND ALL DISCHARGES SHALL BE DIRECTED AWAY FROM THE TREATMENT AREA.
6. THIS SEWAGE DISPOSAL SYSTEM HAS BEEN DESIGNED ON THE ASSUMPTION THAT A GARBAGE (GRINDER) DISPOSAL UNIT WILL NOT BE INSTALLED AND THAT THE ADDITION OF SUCH A UNIT WOULD REQUIRE MODIFICATION OF THE SEPTIC SYSTEM.
7. NO VEHICULAR PARKING OR TRAFFIC SHALL BE ALLOWED ON ANY PORTION OF THE SEWAGE TREATMENT SYSTEM, EXCEPT AS NOTED.
8. THE APPROVED SEWAGE DISPOSAL SYSTEM AREA AND AN AREA ONE HUNDRED (100) FEET DOWNSLOPE SHALL REMAIN UNDISTURBED EXCEPT AS NECESSARY FOR INSTALLATION OF THE SYSTEM.

GENERAL SEWAGE DISPOSAL SYSTEM NOTES:

1. THERE SHALL BE NO DEVIATION FROM THESE PLANS DURING CONSTRUCTION WITHOUT PRIOR APPROVAL OF A LICENSED DESIGN PROFESSIONAL (PREFERABLY THE DESIGN ENGINEER OF RECORD) AND THE COLUMBIA COUNTY DEPARTMENT OF HEALTH (CCDOH).
2. THE MATERIALS AND SPECIFICATIONS NOTED ON THE PLANS MUST BE UTILIZED UNLESS ALTERNATIVES ARE ACCEPTABLE AND APPROVED IN WRITING BY A LICENSED PROFESSIONAL AND CCDOH REPRESENTATIVE.
3. PRIOR TO EXCAVATING, CONSULT THE UNDERGROUND FACILITIES PROTECTIVE ORGANIZATION.
4. THE ELECTRICAL EQUIPMENT TO BE INSTALLED IN ACCORDANCE WITH THIS PLAN MUST BE CERTIFIED BY THE NYS BOARD OF UNDERWRITERS.
5. CONTRACTOR SHALL PROVIDE EROSION CONTROL DEVICES AS REQUIRED.
6. ALL MINIMUM SEPARATION DISTANCES SHALL BE MET AS PER CCDOH STANDARDS, UNLESS OTHERWISE NOTED.
7. CAP ALL LATERAL ENDS.
8. PRIOR TO CONSTRUCTION THE SDS AND WELL LOCATIONS, SHALL BE STAKED OUT BY A NEW YORK STATE LICENSED LAND SURVEYOR.

ADDITIONAL SEWAGE DISPOSAL SYSTEM NOTES:

1. THE SEWAGE DISPOSAL SYSTEM AREA (INCLUDING THE EXPANSION AREA), SHALL BE CORDONED OFF BY THE CONTRACTOR TO PREVENT THE OPERATION OF TRUCKS AND OR MACHINERY OR STORAGE OF HEAVY EQUIPMENT, BUILDING EQUIPMENT, OR EXCAVATED EARTH IN SAID AREA.
2. THE COLUMBIA COUNTY HEALTH DEPARTMENT APPROVAL IS BASED ON THE LOCATION OF THE SEWAGE SYSTEM, WELL, BUILDING, SETBACKS, ROADS AND DRIVEWAYS AS SHOWN HEREON. ANY MODIFICATION OR REVISIONS ARE TO HAVE PRIOR COLUMBIA COUNTY HEALTH DEPARTMENT APPROVAL.
3. THE CONDITIONS NOTED HEREON AND WITHIN THE COLUMBIA COUNTY HEALTH DEPARTMENTS APPROVAL LETTER ARE AN INTEGRAL PART OF THIS APPROVAL AND COMPLIANCE IS REQUIRED.
4. OCCUPANCY OF ANY STRUCTURE SHOWN HEREON WILL NOT BE PERMITTED UNTIL CERTIFICATION OF THE SEWAGE DISPOSAL SYSTEM TO THE COLUMBIA COUNTY HEALTH DEPARTMENT HAS BEEN ACCEPTED BY SAME, AND AN APPROVAL BY THE HEALTH DEPARTMENT HAS BEEN FORWARDED TO THE BUILDING INSPECTOR OF THE TOWN OF LIVINGSTON.

SUMMARY TABLE OF DESIGN :

FLOW RATE	SYSTEM TYPE	SEPTIC TANK	REQUIRED AREA (SQFT)	REQUIRED TRENCH LENGTH	PROVIDED TRENCH LENGTH	NO. OF LATERALS	LENGTH OF LATERALS	L.S.E.
620 GPD	ABSORPTION BED	1000 GAL.	516.67	259 L.F.*	275 L.F.	5	55 L.F.	99.98'

BASIS OF SDS DESIGN:

1. *FLOW RATE BASED ON 15 GPD/TEACHER OR STAFF MEMBER, 10 GPD/STUDENT FROM NEW YORK STATE DESIGN STANDARDS FOR INTERMEDIATE SIZED WASTEWATER TREATMENT SYSTEMS TABLE B-3. (3 TEACHERS, 1 STAFF, 56 STUDENTS)*
2. *STABILIZED PERCOLATION RATE OF 5 MIN PER INCH*
3. *L.S.E. = LOWEST SEWERABLE ELEVATION (WITHOUT A PUMP).*
4. *APPLICATION RATE OF 1.2 GAL/DAY/SQFT FROM NEW YORK STATE DESIGN STANDARDS FOR INTERMEDIATE SIZED WASTEWATER TREATMENT SYSTEMS TABLE E-1.*
5. *REF. ABSORPTION TRENCH DETAILS ON SHEET 8 OF PLAN SET.*

* *REQUIRED TRENCH LENGTH WAS DETERMINED BY DIVIDING TOTAL REQUIRED AREA (516.67 SQFT) BY 2' WIDE LATERALS*

SOIL PERCOLATION TEST RESULTS

PERFORMED BY: BGR
TESTS 1-6 DATE: 8-10-18

TEST HOLE No.	TEST HOLE DEPTH	SOIL TYPE	PRESOAKED	TEST RUNS	1	2	3	4	5
PT-1	24"	0-8" TOPSOIL 8-24" LOAMY SAND	YES	FINISH	9:32	9:36	9:42	9:48	10:02
				START	9:29	9:33	9:37	9:43	9:57
				TIME	0:03	0:03	0:05	0:05	0:05
PT-2	24"	0-10" TOPSOIL 10-24" LOAMY SAND	YES	FINISH	9:40	9:42	9:44	-	-
				START	9:38	9:40	9:42	-	-
				TIME	0:02	0:02	0:02	-	-
PT-3	24"	0-6" TOPSOIL 6-24" LOAMY SAND	YES	FINISH	9:58	10:00	10:03	-	-
				START	9:56	9:58	10:01	-	-
				TIME	0:02	0:02	0:02	-	-
PT-4	24"	0-8" TOPSOIL 8-24" SILTY LOAM	YES	FINISH	10:15	10:16	10:18	10:20	10:22
				START	10:13	10:15	10:16	10:18	10:20
				TIME	0:02	0:01	0:02	0:02	0:02
PT-5	24"	0-6" TOPSOIL 6-15" LOAMY SAND 15-24" GRAVELY LOAM	YES	FINISH	10:45	10:49	10:52	10:56	11:01
				START	10:42	10:45	10:49	10:52	10:57
				TIME	0:03	0:04	0:03	0:04	0:04
PT-6	24"	0-8" TOPSOIL 8-24" LOAMY SAND	YES	FINISH	11:04	11:05	11:08	11:11	11:14
				START	11:02	11:04	11:07	11:09	11:12
				TIME	0:02	0:01	0:01	0:02	0:02

DEEP TEST RESULTS

MA REPRESENTATIVE: BGR
CCDOH REPRESENTATIVE: MD
DATE: OCTOBER 30, 2018

HOLE NUMBER	LOT NUMBER	TOTAL DEPTH	ROCK DEPTH	WATER DEPTH	MOTTLING DEPTH	PROFILE DESCRIPTION
DT 1	N/A	60"	NOT SEEN	NOT SEEN	NOT SEEN	0" - 8" TOPSOIL 8" - 60" SANDY LOAM
DT 2	N/A	60"	NOT SEEN	NOT SEEN	NOT SEEN	0" - 8" TOPSOIL 8" - 60" SANDY LOAM
DT 3	N/A	60"	NOT SEEM	NOT SEEN	NOT SEEN	0" - 8" TOPSOIL 8" - 60" SANDY LOAM

RELEASED FOR PLANNING BOARD REVIEW & COMMENT ONLY
Not For Construction

REVISIONS				
NO.	DATE	BY	CHKED	DESCRIPTION

64 GREEN STREET #1
HUDSON, NEW YORK 12534
TEL (518) 828-2300
FAX (518) 828-3963
CPLteam.com
ARCHITECTURE ■ ENGINEERING ■ PLANNING

NOKOMIS, LLC

TOWN OF NEW LEBANON COLUMBIA COUNTY, NY

DATE: OCT 2018
DRAWN: BGR
DESIGNED: RJJ
CHECKED: RJJ
SCALE: AS NOTED

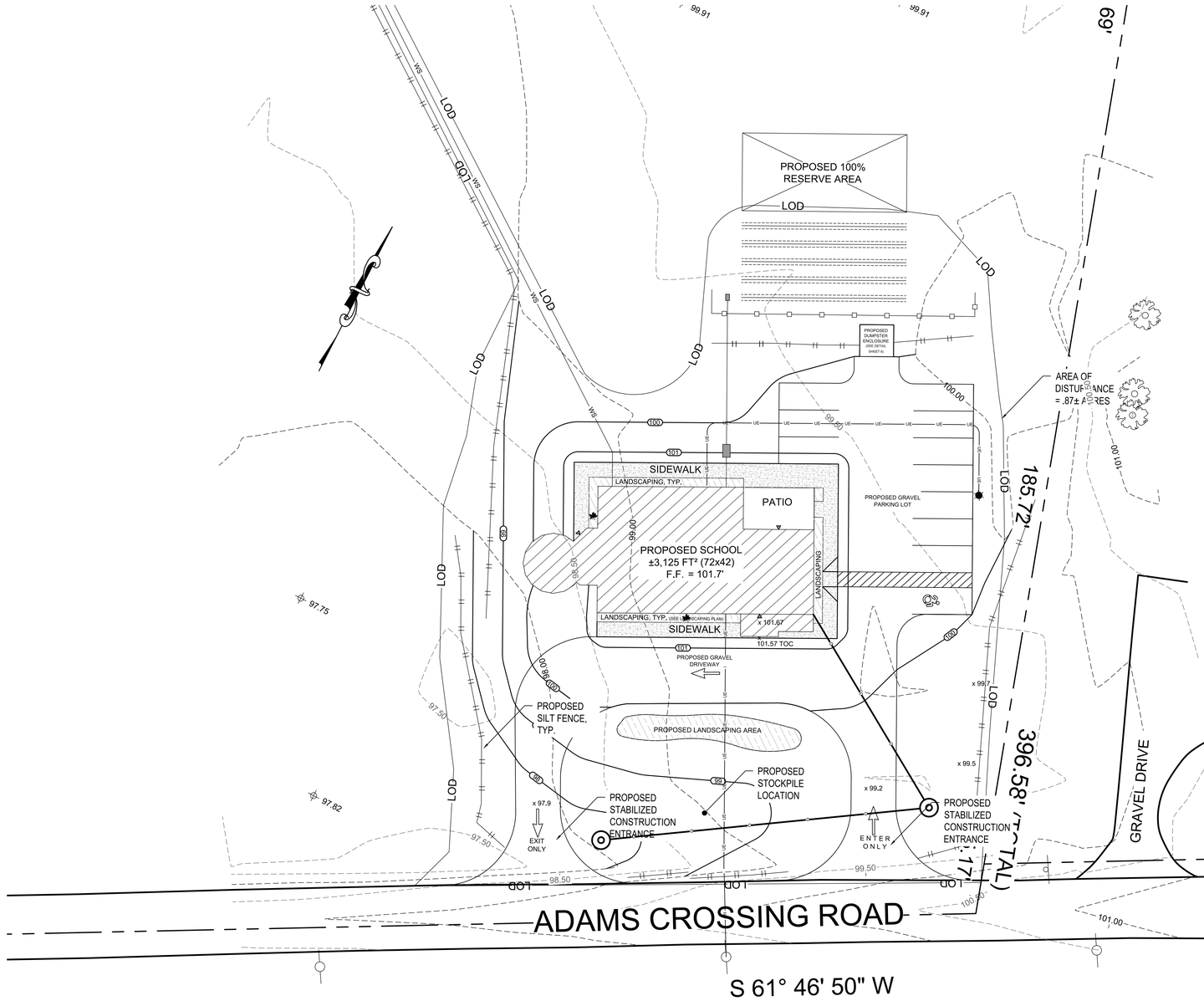
NOKOMIS EDUCATIONAL CENTER

GRADING & UTILITY PLAN

PROJECT NUMBER
60041.0

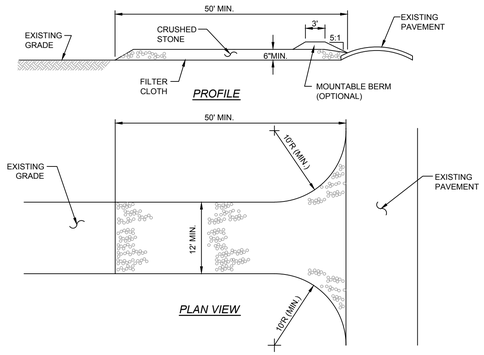
DRAWING NUMBER
C-202

IT IS A VIOLATION OF THE NEW YORK STATE EDUCATION LAW AND THE COMMISSIONER'S REGULATIONS FOR ANY PERSON, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED ARCHITECT, ENGINEER OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE SEAL OF AN ARCHITECT, ENGINEER OR SURVEYOR IS ALTERED, THE ALTERING PARTY SHALL AFFIX TO THE ITEM THEIR SEAL AND THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE AND THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.



EROSION & SEDIMENT CONTROL PLAN

SCALE: 1"=20'



CONSTRUCTION ENTRANCE SPECIFICATIONS

1. STONE SIZE - USE 2" STONE, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT
2. LENGTH - AS REQUIRED, BUT NOT LESS THAN 50' (EXCEPT ON A SINGLE RESIDENCE LOT WHERE A 30' MINIMUM LENGTH WOULD APPLY).
3. THICKNESS - NOT LESS THAN 6".
4. WIDTH - 10' MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS.
5. FILTER CLOTH - WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO THE PLACING OF STONE. FILTER WILL NOT BE REQUIRED ON A SINGLE FAMILY RESIDENCE LOT.
6. SURFACE WATER - ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED ACROSS THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES SHALL BE PERMITTED.
7. MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.
8. WASHING - WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC RIGHTS-OF-WAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
9. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.

TYPICAL STABILIZED CONSTRUCTION ENTRANCE DETAIL

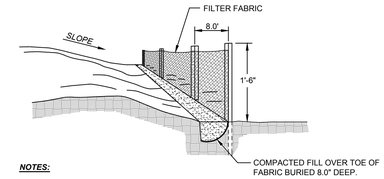
N.T.S.

NOTES

1. AREA CHOSEN FOR STOCKPILING SHALL BE DRY AND STABLE.
2. MAXIMUM SLOPE OF STOCKPILE SHALL BE 2:1.
3. UPON COMPLETION OF SOIL STOCKPILING, EACH PILE SHALL BE SURROUNDED WITH SILT FENCING AND STABILIZED SEED AND MULCH OR JUTE MESH. HAYBALES SHALL NOT BE USED IN PLACE OF SILT FENCE.
4. SEE SPECIFICATIONS FOR INSTALLATION OF SILT FENCE.
5. SIZE OF STOCKPILE SHALL NOT EXCEED THE LIMITATIONS OF DRAINAGE AREA PER SILT FENCE SPECIFICATIONS.
6. INSTALL SILT FENCE AND OR HAY BALES A MINIMUM OF 2' FROM THE TOE OF THE STOCKPILE.

TYPICAL SOIL STOCKPILE DETAIL

N.T.S.



NOTES:

1. LOCATE POSTS DOWNSIDE OF FABRIC TO HELP SUPPORT FENCING.
2. BURY TOE OF FENCE APPROXIMATELY 8" DEEP TO PREVENT UNDERCUTTING.
3. WHEN JOINTS ARE NECESSARY, SECURELY FASTEN THE FABRIC AT A SUPPORT POST WITH OVERLAP TO THE NEXT POST.

TYPICAL SILT FENCE DETAIL

N.T.S.

RELEASED FOR PLANNING BOARD REVIEW & COMMENT ONLY
Not For Construction

REVISIONS				
NO.	DATE	BY	CHKED	DESCRIPTION

64 GREEN STREET #1
HUDSON, NEW YORK 12534
TEL (518) 828-2300
FAX (518) 828-3963
CPLteam.com
ARCHITECTURE ▪ ENGINEERING ▪ PLANNING

NOKOMIS, LLC

TOWN OF NEW LEBANON COLUMBIA COUNTY, NY

DATE:	OCT 2018
DRAWN:	BGR
DESIGNED:	RJJ
CHECKED:	RJJ
SCALE:	AS NOTED

NOKOMIS EDUCATIONAL CENTER

EROSION & SEDIMENT CONTROL PLAN

PROJECT NUMBER 60041.0

DRAWING NUMBER C-203

Referenced Drawings: None
Drawing Name: Y:\sdsk\Proj\218054 mountain rd school\218054 11-6.dwg
Date last accessed: 11/8/2018 1:53 PM
Date last plotted: 11/9/2018 9:18 AM
Plotted By: Bryce Recer
IT IS A VIOLATION OF THE NEW YORK STATE EDUCATION LAW AND THE COMMISSIONER'S REGULATIONS FOR ANY PERSON, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED ARCHITECT, ENGINEER OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF ANYONE BEARING THE SEAL OF AN ARCHITECT, ENGINEER OR SURVEYOR IS ALTERED, THE ALTERING PART SHALL AFFIX TO THE DOCUMENT THE SEAL AND THE NOTATION 'ALTERED BY' FOLLOWED BY THEIR SIGNATURE AND THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

GENERAL CONSTRUCTION NOTES

1. LOCATION OF EXISTING SITE UTILITIES ARE BASED ON INFORMATION PROVIDED BY OWNER AND ARE FOR ILLUSTRATIVE PURPOSES ONLY. OWNER AND ENGINEER SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OF THE UTILITIES SHOWN. CONTRACTOR SHALL BE RESPONSIBLE FOR THE MARK OUT OF ALL UNDERGROUND UTILITIES PRIOR TO COMMENCING CONSTRUCTION.

2. CONTRACTOR SHALL CONTACT 'DIG SAFELY NEW YORK' PRIOR TO COMMENCING CONSTRUCTION. 1-800-962-7962

3. THE PLANS SHOW SOME KNOWN SUBSURFACE STRUCTURES, ABOVE GROUND STRUCTURES AND/OR UTILITIES BELIEVED TO EXIST IN THE WORKING AREA, EXACT LOCATIONS OF WHICH MAY VARY FROM THE LOCATIONS INDICATED. IN PARTICULAR, THE CONTRACTOR IS WARNED THAT THE EXACT OR EVEN APPROXIMATE LOCATIONS OF SUCH PIPELINES, SUBSURFACE STRUCTURES AND/OR UTILITIES IN THE AREA MAY BE SHOWN OR MAY NOT BE SHOWN; AND IT SHALL BE HIS (THE CONTRACTORS) RESPONSIBILITY TO PROCEED WITH GREAT CARE IN EXECUTING ANY WORK. NO WARRANTY IS MADE OR IMPLIED REGARDING THE EXACT LOCATION OF UNDERGROUND STRUCTURES AND/OR UTILITIES.

4. PRIOR TO THE INSTALLATION OF ALL NEW EQUIPMENT AND APPURTENANCES, THE CONTRACTOR IS DIRECTED TO LOCATE EXISTING STRUCTURES, PIPELINES OR EQUIPMENT TO ASCERTAIN IF SAID ITEM IS IN CONFLICT OR CONTRADICTION TO THE INTENT OF THE CONTRACT PLANS OR SPECIFICATIONS.

5. IT IS THE CONTRACTOR'S RESPONSIBILITY TO EXAMINE ALL PLANS, SPECIFICATIONS AND CONTRACT DOCUMENTATION TO THOROUGHLY FAMILIARIZE HIMSELF/HERSELF WITH THE FULL SCOPE AND INTENT OF THE WORK.

6. THE ENGINEER SHALL BE NOTIFIED IN WRITING OF ANY CONDITIONS THAT VARY FROM THOSE SHOWN ON THE PLANS. THE CONTRACTOR'S WORK SHALL NOT VARY FROM THE PLANS WITHOUT THE EXPRESSED APPROVAL OF THE ENGINEER.

7. THE CONTRACTOR IS RESPONSIBLE FOR THE FIELD LAYOUT OF ALL IMPROVEMENTS.

8. THE CONTRACTOR SHALL PROTECT ALL PROPERTY LINE MONUMENTATION. ANY MONUMENT DISTURBED OR DESTROYED SHALL BE REPLACED AT THE CONTRACTORS' EXPENSE BY A NEW YORK STATE LICENSED LAND SURVEYOR.

9. EXPLORATORY EXCAVATIONS SHALL BE PERFORMED BY THE CONTRACTOR, AT HIS OWN EXPENSE AND AS NEEDED, TO VERIFY EXISTING SUBSURFACE CONDITIONS. PRIOR TO CONTRACTOR BEGINNING CONSTRUCTION, CONTRACTOR SHALL BE RESPONSIBLE FOR EXCAVATING A MINIMUM TWO (2) TEST HOLES TO VERIFY SIZE, MATERIAL, AND CONDITION OF THE EXISTING WATER MAINS. SAID TEST HOLES SHALL BE DUG IN THE GENERAL LOCATION OF EACH PROPOSED INTERCONNECTION.

10. ALL EXCAVATION AND ANY REQUIRED SHEETING, SHORING OR BRACING SHALL BE CONDUCTED IN FULL CONFORMANCE WITH THE LATEST REVISIONS OF THE NEW YORK STATE INDUSTRIAL CODE RULE 23 AND OSHA REGULATIONS FOR CONSTRUCTION. SHEETING SHALL BE DESIGNED AND SEALED BY A NEW YORK STATE LICENSED PROFESSIONAL ENGINEER.

11. THE CONTRACTOR SHALL MAINTAIN, AT ALL TIMES, FULL ACCESS TO ALL ROADWAYS AND DRIVEWAYS IN AND AROUND THE SITE.

12. THE CONTRACTOR SHALL NOT STOCKPILE ANY MATERIALS OR CAUSE ANY MATERIALS TO BE PLACED ON ANY ROADWAYS OR PARKING AREAS THROUGHOUT THE SITE THAT IS NOT DESIGNATED AS A STAGING AREA.

13. THE CONTRACTOR IS CAUTIONED THAT THE ADJOINING MOUNTAIN RD. SCHOOL SITE WILL BE OCCUPIED DURING THE COURSE OF CONSTRUCTION.

14. CONTRACTOR IS TO GRADE ALL DISTURBED AREAS ON THE SITE TO PROVIDE POSITIVE DRAINAGE AWAY FROM ALL STRUCTURES.

15. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CONSTRUCTION SITE SAFETY.

16. THE CONTRACTOR SHALL PROVIDE BARRICADES, INCLUDING TEMPORARY FENCING TO PREVENT UNAUTHORIZED ENTRY TO CONSTRUCTION AREAS AND TO PROTECT EXISTING AND NEW FACILITIES FROM DAMAGE BY CONSTRUCTION OPERATIONS OR VANDALISM.

17. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CONSTRUCTION METHODOLOGY UNLESS OTHERWISE REQUIRED BY THESE PLANS AND SPECIFICATIONS.

18. ALL EXCAVATIONS SHALL BE BACK FILLED TO FINISHED GRADE. THE WORK ZONE SHALL BE PROTECTED WITH BARRELS SPACED NO MORE THAN 25 FEET APART AT THE END OF EACH WORKDAY.

19. THE CONTRACTOR SHALL RESTORE ALL DISTURBED AREAS, AND ROADSIDE FEATURES INCLUDING LAWNS, DRIVES, CULVERTS, DRAINAGE SWALES, FENCES, SIGNS,MAILBOXES AND OTHER PUBLIC OR PRIVATE PROPERTY TO IT'S PRE-CONSTRUCTION CONDITION UNLESS OTHERWISE REQUIRED BY THESE PLANS AND/OR SPECIFICATIONS.

20. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL EXCAVATION DEWATERING AND MAINTENANCE OF SURFACE DRAINAGE DURING THE COURSE OF CONSTRUCTION.

21. DURING THE COURSE OF CONSTRUCTION, THE CONTRACTOR SHALL MAINTAIN A DETAILED SET OF OF RECORDED DRAWINGS INDICATING THE EXACT LOCATIONS, INCLUDING ELEVATIONS, OF ALL IMPROVEMENTS. A MINIMUM OF TWO (2) TIE DISTANCES TO PROMINENT FEATURES SHALL BE PROVIDED TO ALL NEW STRUCTURES, CHANGES IN PIPE ALIGNMENT (HORIZONTAL AND VERTICAL) AND OTHER PERTINENT FEATURES, TO PERMIT THE LOCATION OF ANY BURIED COMPONENTS. UPON COMPLETION OF CONSTRUCTION, THESE PLANS SHALL BE PROVIDED TO THE PROJECT ENGINEER. THE CONTRACTOR SHALL PROVIDE ANY CORRECTIONS OR ADDITIONAL DATA, AS MAY BE REQUIRED, TO THE SATISFACTION OF THE OWNER AND PROJECT ENGINEER. FINAL APPROVAL OF THESE RECORD PLANS BY THE OWNER AND THE PROJECT ENGINEER WILL BE A REQUIREMENT PRIOR TO THE RELEASE OF FINAL PAYMENT.

22. THE CONTRACTOR SHALL INSTALL AND MAINTAIN EROSION CONTROLS AS REQUIRED TO PREVENT SOIL EROSION AND SEDIMENTATION, AT NO ADDITIONAL COST TO THE OWNER.

23. EROSION CONTROL MEASURES SHALL BE REMOVED AND THE DISTURBED AREAS RESTORED TO THEIR PRE-CONSTRUCTION CONDITION WHEN SUCH MEASURES ARE NO LONGER REQUIRED.

24. THE CONTRACTOR SHALL PROTECT EXISTING TREES TO REMAIN AND SHRUBS FROM DAMAGE DURING ALL PHASES OF CONSTRUCTION.

25. CONTRACTOR SHALL RE-ESTABLISH ALL EXISTING DRAINAGE DITCHES/ SWALES INCLUDING STABILIZATION TO MAINTAIN EXISTING FLOW PATTERNS.

STANDARD NOTES FOR WATER SYSTEMS

THE DESIGN, CONSTRUCTION AND INSTALLATION SHALL BE IN ACCORDANCE WITH THIS PLAN AND GENERALLY ACCEPTED STANDARDS IN EFFECT AT THE TIME OF CONSTRUCTION WHICH INCLUDE:

"RECOMMENDED STANDARDS FOR WATER WORKS (TEN STATES)"
"RURAL WATER SUPPLY, NEW YORK STATE DEPARTMENT OF HEALTH"
"NEW YORK STATE DEPARTMENT OF HEALTH AND DUTCHESS COUNTY DEPARTMENT OF HEALTH POLICIES, PROCEDURES AND STANDARDS"

THIS PLAN IS APPROVED AS MEETING THE APPROPRIATE AND APPLIED TECHNICAL STANDARDS, GUIDELINES, POLICIES AND PROCEDURES FOR ARRANGEMENT OF SEWAGE DISPOSAL AND TREATMENT AND WATER SUPPLY FACILITIES.

UPON COMPLETION OF THE FACILITIES, THE FINISHED WORKS SHALL BE INSPECTED, TESTED, AND CERTIFIED COMPLETE TO THE NEW YORK STATE DEPARTMENT OF HEALTH BY A NEW YORK STATE LICENSED PROFESSIONAL ENGINEER SUPERVISING CONSTRUCTION. NO PART OF THE FACILITIES SHALL BE PLACED INTO SERVICE UNTIL ACCEPTED BY THE DUTCHESS COUNTY HEALTH DEPARTMENT.

APPROVAL OF ANY PLAN(S) OR AMENDMENT THERETO SHALL BE VALID FOR A PERIOD OF FIVE (5) YEARS FROM THE DATE OF APPROVAL. FOLLOWING THE EXPIRATION OF SAID APPROVAL, THE PLAN(S) SHALL BE RESUBMITTED TO THE COMMISSIONER OF HEALTH FOR CONSIDERATION FOR RE-APPROVAL. RE-SUBMISSION OR REVISED SUBMISSION OF PLANS AND/OR ASSOCIATED DOCUMENTS SHALL BE SUBJECTED TO COMPLIANCE WITH TECHNICAL STANDARDS, GUIDELINES, POLICIES AND PROCEDURES IN EFFECT AT THE TIME OF THE RE-SUBMISSION.

SOIL EROSION & SEDIMENT CONTROL NOTES

1. THIS PLAN IN CONJUNCTION WITH THE PROJECT SPECIFICATIONS AND THE NYS DEC SPDES GENERAL PERMIT FOR STORMWATER DISCHARGES FROM CONSTRUCTION ACTIVITY PERMIT NO. GP-0-15-002 SHALL BE USED TO MINIMIZE SOIL EROSION DURING THE COURSE OF CONSTRUCTION.
2. ALL SOIL EROSION AND SEDIMENT CONTROL DEVICES SHALL BE INSTALLED IN ACCORDANCE WITH THE NEW YORK STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL (2016). (REFERRED TO IN REMAINING TEXT AS "THE NEW YORK GUIDELINES").
3. ANY DISTURBED AREA THAT WILL BE LEFT UNDISTURBED FOR MORE THAN 21 DAYS, AND ARE NOT SUBJECT TO CONSTRUCTION TRAFFIC, SHALL BE SEEDED AND MULCHED WITHIN 14 DAYS OF THE LAST DISTURBANCE WITH TEMPORARY SEEDING. IF THE SEASON PREVENTS THE ESTABLISHMENT OF A TEMPORARY COVER, THE DISTURBED AREAS SHALL BE MULCHED WITH STRAW OR EQUIVALENT MATERIAL. THE SEEDING SHALL BE DONE IN ACCORDANCE WITH THE NEW YORK GUIDELINES, AS FOLLOWS:
   A) SEED: ANNUAL RYE GRASS APPLIED AT A RATE OF 30 LBS./ACRE OTHER SELECT MIXTURE AS DESCRIBED IN THE NEW YORK GUIDELINES.
      IF: SPRING, SUMMER OR EARLY FALL SEED WITH RYE GRASS (ANNUAL OR PERENNIAL) AT 30 LBS. PER ACRE.
      IF: LATE FALL OR EARLY WINTER SEED WITH CERTIFIED "ARUOSTOOK" WINTER RYE, AT 100 LBS. (CEREAL RYE) PER ACRE.
   B) MULCH: OLD HAY OR SMALL GRAIN STRAW APPLIED AT A RATE OF NINETY (90) POUNDS PER ONE THOUSAND SQUARE FT. OR TWO TONS PER ACRE. TO BE APPLIED AND ANCHORED ACCORDING TO THE NEW YORK GUIDELINES. WOODFIBER HYDROMULEN OR OTHER SPRAYABLE PRODUCTS APPROVED FOR EROSION CONTROL (NYLON WEB OR MESH) MAY BE USED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
6. ANY GRADED AREAS NOT SUBJECT TO FURTHER DISTURBANCE OR CONSTRUCTION TRAFFIC SHALL, WITHIN FIVE (5) DAYS AFTER FINAL GRADING, RECEIVE PERMANENT VEGETATIVE COVER IN COMBINATION WITH A SUITABLE MULCH AS FOLLOWS:
   A) STEEP OR EROSION SLOPES GREATER THAN 2"1 (H:V) REFER TO PERMANENT CRITICAL AREA PLANTING NOTES.
   B) RECREATIONAL AREAS AND LAWN REFER TO RECREATIONAL AREA IMPROVEMENT NOTES:
7. SLOPES STEEPER THAN ONE ON THREE (H:V) SHALL BE STABILIZED IMMEDIATELY AFTER GRADING.
8. PAVED ROADWAYS SHALL BE KEPT CLEAR AND CLEAN OF DEBRIS AT ALL TIMES.
9. THE SITE SHALL AT ALL TIMES BE GRADED AND MAINTAIN SUCH THAT ALL STORM WATER RUNOFF IS DIVERTED TO SOIL EROSION OR SEDIMENT CONTROL FACILITIES. EXCEPT FOR MINOR PERIMETER EMBANKMENT AREAS, ALL GRADE AREA SHALL BE DIRECTED THROUGH ONE OF THE SEDIMENTS BARRIERS. DIVERSION SWALES MAY BE USED TO DIRECT DRAINAGE RUNOFF UNTIL PERMANENT STORM DRAINAGE SYSTEM IS IN PLACE.
10. DUST SHALL BE CONTROLLED BY SPRINKLING OR OTHER APPROVED METHODS.
11. THE BASE OF ALL STOCKPILES SHALL BE PROTECTED BY A COMBINATION OF SILT FENCE AND A HAY BALE BARRIER IN ACCORDANCE WITH THE DETAIL.
12. SOIL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSPECTED AND MAINTAIN BY THE *TRAINED CONTRACTOR* ON A DAILY BASIS TO ENSURE THAT TEMPORARY AND PERMANENT DITCHES, PIPES AND STRUCTURES ARE CLEAR OF DEBRIS, THAT EMBANKMENTS AND BERMS ARE NOT BREACHED, AND THAT ALL BARRIERS ARE INTACT.
13. ALL SOIL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE MAINTAINED BY THE CONTRACTOR UNTIL FINAL ACCEPTANCE OF THE SITE WORK BY THE OWNER. UPON CERTIFICATION OF FINAL ACCEPTANCE, THE OWNER WILL ASSUME RESPONSIBILITY FOR THE CONTINUED MAINTENANCE OR PERMANENT SOIL EROSION AND SEDIMENTATION CONTROL MEASURES.
14. THE CONTRACTOR IS ULTIMATELY RESPONSIBLE FOR IMPLEMENTATION AND MAINTENANCE OF ALL EROSION AND SEDIMENT CONTROL MEASURES.

RELEASED FOR PLANNING
BOARD REVIEW &
COMMENT ONLY
Not For Construction

IT IS A VIOLATION OF THE NEW YORK STATE EDUCATION LAW AND THE COMMISSIONER'S REGULATIONS FOR ANY PERSON, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED ARCHITECT, ENGINEER OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF ANY ITEM BEARING THE SEAL OF AN ARCHITECT, ENGINEER OR SURVEYOR IS ALTERED, THE ALTERING PARTY SHALL AFFIX TO THE ITEM THE SEAL AND THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE AND THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION

Plotted By: Bryce Recer
Date last plotted: 11/9/2018 9:18 AM
Date last accessed: 11/8/2018 1:53 PM
Referenced Drawings: None
Drawing Name: Y:\sdsk\Proj\218054 mountain rd school\218054 11-6.dwg

REVISIONS

NO.	DATE	BY	CHKED	DESCRIPTION

64 GREEN STREET #1
HUDSON, NEW YORK 12534
TEL (518) 828-2300
FAX (518) 828-3963
CPLteam.com
ARCHITECTURE ▪ ENGINEERING ▪ PLANNING

NOKOMIS, LLC

TOWN OF NEW LEBANON COLUMBIA COUNTY, NY

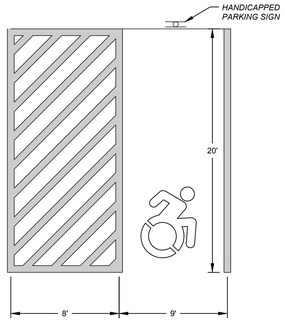
DATE:	OCT 2018
DRAWN:	BGR
DESIGNED:	RJJ
CHECKED:	RJJ
SCALE:	AS NOTED

NOKOMIS EDUCATIONAL CENTER

SITE NOTES

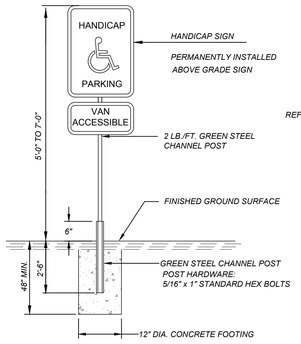
PROJECT NUMBER
60041.0

DRAWING NUMBER
C-800



HANDICAP STALL DETAIL

N.T.S.



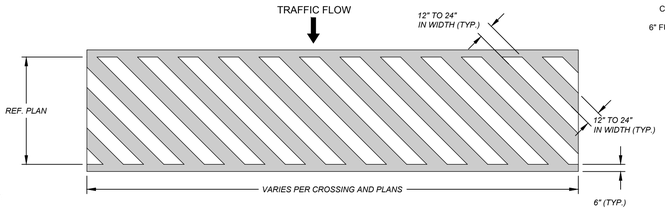
HANDICAP PARKING SIGN

N.T.S.

NOTE:

THE P4-6 SIGN SHALL HAVE GREEN LEGEND, EXCEPT THAT THE DISABLED PERSON SYMBOL SHALL HAVE WHITE LEGEND ON A BLUE BACKGROUND. WHERE USED TO IDENTIFY A SINGLE MARKED PARKING SPACE, THE DOUBLE ARROW MAY BE OMITTED.

SIGN POST MUST UTILIZE FRANKLIN BREAK-A-WAY POST OR SIMILAR APPROVED METHOD OF INSTALLATION.

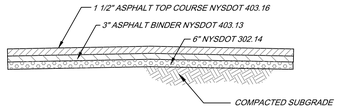


TYPICAL CROSSWALK DETAIL

NOTES:

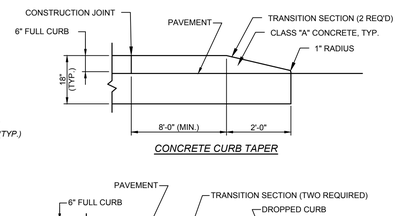
N.T.S.

1. CROSSWALK LINES SHALL BE WHITE IN COLOR.
2. CROSSWALKS SHALL BE A MINIMUM OF 6' WIDE, EXCEPT WHERE UNUSUAL CONDITIONS APPLY.
3. PARALLEL CROSSWALK LINES SHALL BE A MINIMUM OF 6" WIDE BUT NOT MORE THAN 12" WIDE UNLESS OTHERWISE SPECIFIED.
4. DIAGONAL LINES SHALL BE ORIENTED AT AN ANGLE OF 45 DEGREES TO THE DIRECTION OF VEHICULAR TRAFFIC FLOW. THEY SHALL BE 12" TO 24" WIDE, AND SHALL BE SEPARATED BY SPACES 12" TO 24" WIDE.

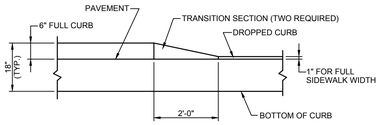


TYPICAL PARKING AREA / ASPHALT SIDEWALK PAVEMENT DETAIL

N.T.S.



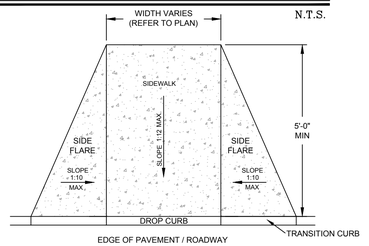
CONCRETE CURB TAPER



CONCRETE DROP CURB TRANSITION

TYPICAL CURB TRANSITION DETAIL

N.T.S.



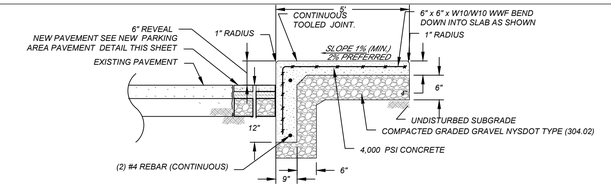
SIDEWALK (PLAN VIEW)

SIDEWALK ACCESS RAMP

N.T.S.

NOTES

1. CURB RAMPS LOCATED WHERE PEDESTRIANS MAY WALK ACROSS THE CURB RAMP SHALL HAVE FLARED SIDES. THE LENGTH OF THE FLARES SHALL BE AT LEAST TEN (10) TIMES THE CURB HEIGHT, MEASURED ALONG THE CURB LINE.
2. THE SURFACE OF ALL CURB RAMPS SHALL BE STABLE, FIRM AND SLIP RESISTANT. A COARSE BROOM FINISH RUNNING PERPENDICULAR TO THE SLOPE IS RECOMMENDED ON CONCRETE RAMP SURFACES.
3. CROSS SLOPES AS SHOWN ON PLANS. SURFACES SHALL LIE IN CONTINUOUS PLANES WITH A MINIMUM OF SURFACE WARP.
4. BLENDED TRANSITION SHALL BE AS SHOWN ON PLANS.



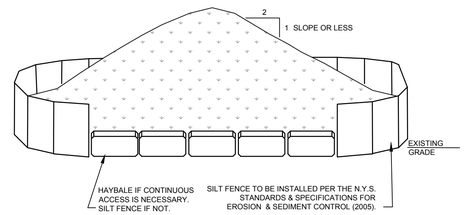
COMBINATION CURB AND WALK DETAIL

N.T.S.

NOTE:

PROVIDE TOOLED JOINTS AT 48" ON CENTER (FROM TOOLED CURB JOINT TO LAWN SIDE OF SIDEWALK)

PROVIDE 1/2" EXP. JOINT MATERIAL AT 12' ON CENTER (THROUGH CURB AND SIDEWALK)

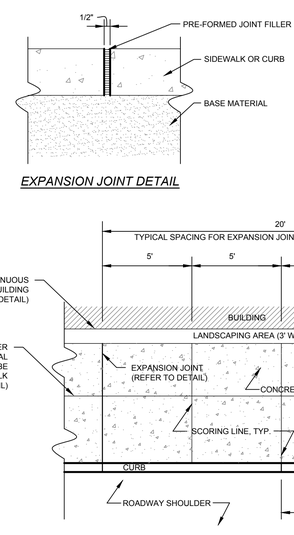


NOTES

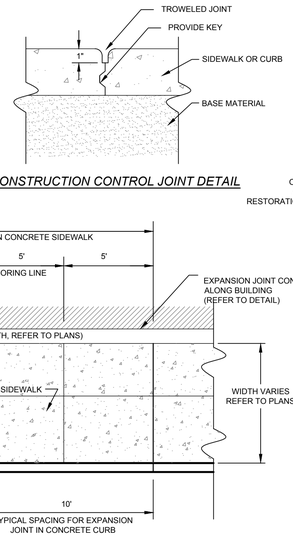
1. AREA CHOSEN FOR STOCKPILING SHALL BE DRY AND STABLE.
2. MAXIMUM SLOPE OF STOCKPILE SHALL BE 2:1.
3. UPON COMPLETION OF SOIL STOCKPILING, EACH PILE SHALL BE SURROUNDED WITH SILT FENCING AND STABILIZED SEED AND MULCH OR JUTE MESH. HAYBALES SHALL NOT BE USED IN PLACE OF SILT FENCE.
4. SEE SPECIFICATIONS FOR INSTALLATION OF SILT FENCE.
5. SIZE OF STOCKPILE SHALL NOT EXCEED THE LIMITATIONS OF DRAINAGE AREA PER SILT FENCE SPECIFICATIONS.
6. INSTALL SILT FENCE AND OR HAY BALES A MINIMUM OF 2' FROM THE TOE OF THE STOCKPILE.

TYPICAL SOIL STOCKPILE DETAIL

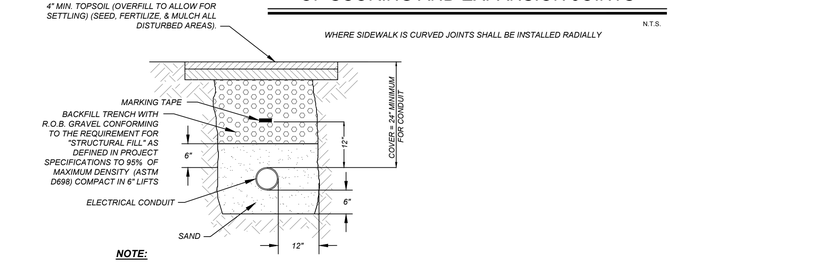
N.T.S.



EXPANSION JOINT DETAIL



CONSTRUCTION CONTROL JOINT DETAIL



PLAN

CONCRETE SIDEWALK AND CURB PLAN OF SCORING AND EXPANSION JOINTS

N.T.S.

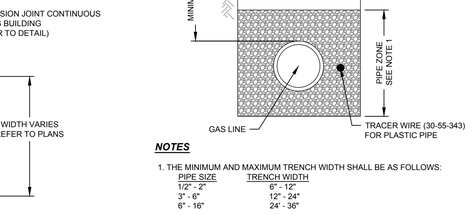
WHERE SIDEWALK IS CURVED JOINTS SHALL BE INSTALLED RADIALLY

NOTE:

EXCAVATING OVER 5' REQUIRES SHEETING/SHORING OR OVER EXCAVATION OF TRENCH SIDE WALLS PER OSHA.

ELECTRICAL TRENCH DETAIL

N.T.S.



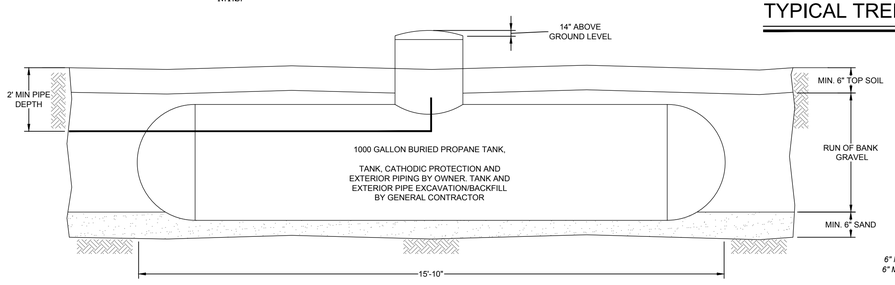
NOTES

1. THE MINIMUM AND MAXIMUM TRENCH WIDTH SHALL BE AS FOLLOWS:

PIPE SIZE	TRENCH WIDTH
1/2" - 2"	6" - 12"
3" - 6"	12" - 24"
6" - 16"	24" - 36"

TYPICAL GAS PIPE TRENCH DETAIL

N.T.S.

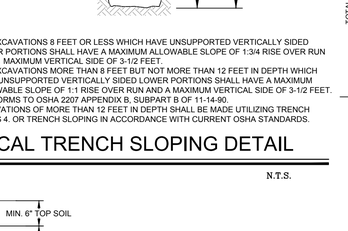


BURIED PROPANE TANK DETAIL

N.T.S.

NOTES

1. PROVIDE CATHODIC PROTECTION FOR TANK.
2. EXACT DIMENSIONS OF TANK AND BURIAL DEPTH WILL DEPEND ON MANUFACTURER OF SAID TANK.
3. TANK MANUFACTURE SHOULD BE CONSULTED REGARDING THE INSTALLATION OF ANTI-FLOTATION BALIST.

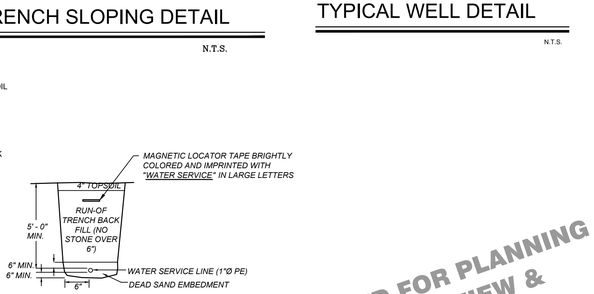


NOTES:

1. ALL EXCAVATIONS 8 FEET OR LESS WHICH HAVE UNSUPPORTED VERTICALLY SIDED LOWER PORTIONS SHALL HAVE A MAXIMUM ALLOWABLE SLOPE OF 1:3/4 RISE OVER RUN AND A MAXIMUM VERTICAL SIDE OF 3-1/2 FEET.
2. ALL EXCAVATIONS MORE THAN 8 FEET BUT NOT MORE THAN 12 FEET IN DEPTH WHICH HAVE UNSUPPORTED VERTICALLY SIDED LOWER PORTIONS SHALL HAVE A MAXIMUM ALLOWABLE SLOPE OF 1:1 RISE OVER RUN AND A MAXIMUM VERTICAL SIDE OF 3-1/2 FEET.
3. CONFORMS TO OSHA 2207 APPENDIX B, SUBPART B OF 11-14-90.
4. EXCAVATIONS OF MORE THAN 12 FEET IN DEPTH SHALL BE MADE UTILIZING TRENCH BOXES 4. OR TRENCH SLOPING IN ACCORDANCE WITH CURRENT OSHA STANDARDS.

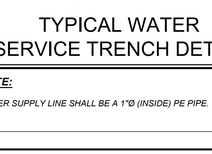
TYPICAL TRENCH SLOPING DETAIL

N.T.S.



TYPICAL WELL DETAIL

N.T.S.



TYPICAL WATER SERVICE TRENCH DETAIL

N.T.S.

NOTE:

WATER SUPPLY LINE SHALL BE A 1"Ø (INSIDE) PE PIPE.

RELEASED FOR PLANNING BOARD REVIEW & COMMENT ONLY
Not For Construction

Plotted By: Bryce Recer
Date last plotted: 11/9/2018 9:18 AM
Date last accessed: 11/8/2018 11:53 PM
Referenced Drawings: None
Drawing Name: Y:\cdsk\Proj\218054 mountain rd school\218054 11-6.dwg

IT IS A VIOLATION OF THE NEW YORK STATE EDUCATION LAW AND THE COMMISSIONER'S REGULATIONS FOR ANY PERSON, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED ARCHITECT, ENGINEER OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE SEAL OF AN ARCHITECT, ENGINEER OR SURVEYOR IS ALTERED, THE ALTERING PARTY SHALL AFFIX TO THE ITEM HIS/HER SEAL AND THE NOTATION "ALTERED BY" FOLLOWED BY HIS/HER SIGNATURE AND THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

REVISIONS

NO.	DATE	BY	CHKED	DESCRIPTION

64 GREEN STREET #1
HUDSON, NEW YORK 12534
TEL (518) 828-2300
FAX (518) 828-3963
CPLteam.com
ARCHITECTURE ▪ ENGINEERING ▪ PLANNING

NOKOMIS, LLC

TOWN OF NEW LEBANON COLUMBIA COUNTY, NY

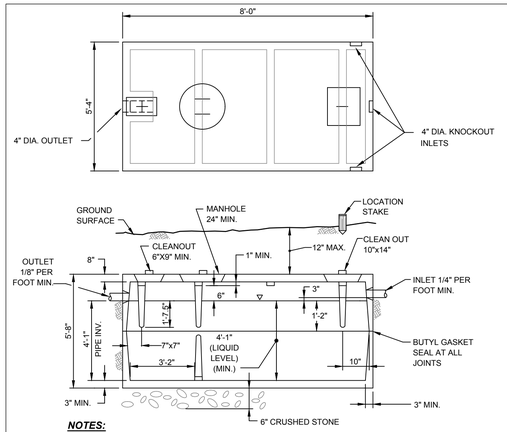
DATE: OCT 2018
DRAWN: BGR
DESIGNED: RJJ
CHECKED: RJJ
SCALE: AS NOTED

NOKOMIS EDUCATIONAL CENTER

SITE DETAILS 1

PROJECT NUMBER 60041.0

DRAWING NUMBER C-801

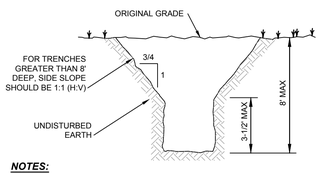


NOTES:

1. SEPTIC TANK TO BE WATERTIGHT, CONSTRUCTED OF DURABLE MATERIAL AND NOT SUBJECT TO EXCESSIVE CORROSION DECAY, FROST DAMAGE OR CRACKING. TANKS SHALL BE DESIGNED TO SUPPORT HS-20 TRAFFIC LOADING.
2. DIMENSIONS AND CONFIGURATION MAY VARY DEPENDING UPON MANUFACTURER.
3. CONCRETE STRENGTH - 4,000 PSI AT 28 DAYS.
4. STEEL REINFORCEMENT - ASTM A-615, GRADE 60.
5. ALL PIPE PENETRATIONS TO BE WATERTIGHT.
6. CONTRACTOR SHALL DEMONSTRATE THAT THE SEPTIC TANK IS WATER TIGHT, AND TEST SHALL BE WITNESSED BY DESIGN ENGINEER OR A CCDOH REPRESENTATIVE.
7. MAXIMUM DEPTH OVER SEPTIC TANK IS 12". IF THERE IS MORE THAT 12" OF COVER OVER THE SEPTIC TANK, AN ACCESS PORT SHALL BE REQUIRED.

TYPICAL 1000 GAL. SEPTIC TANK DETAIL

N.T.S.

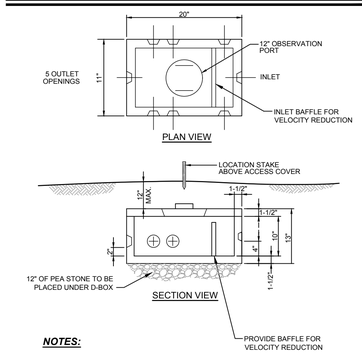


NOTES:

1. ALL EXCAVATIONS 8 FEET OR LESS WHICH HAVE UNSUPPORTED VERTICALLY SIDED LOWER PORTIONS SHALL HAVE A MAXIMUM ALLOWABLE SLOPE OF 1:3/4 RISE OVER RUN AND A MAXIMUM VERTICAL SIDE OF 3-1/2 FEET.
2. ALL EXCAVATIONS MORE THAN 8 FEET BUT NOT MORE THAN 12 FEET IN DEPTH WHICH HAVE UNSUPPORTED VERTICALLY SIDED LOWER PORTIONS SHALL HAVE A MAXIMUM ALLOWABLE SLOPE OF 1:1 RISE OVER RUN AND A MAXIMUM VERTICAL SIDE OF 3-1/2 FEET.
3. CONFORMS TO OSHA 2207 APPENDIX B, SUBPART B OF 11-14-90.
4. EXCAVATIONS OF MORE THAN 12 FEET IN DEPTH SHALL BE MADE UTILIZING TRENCH BOXES 4. OR TRENCH SLOPING IN ACCORDANCE WITH CURRENT OSHA STANDARDS.

TYPICAL TRENCH SLOPING DETAIL

N.T.S.

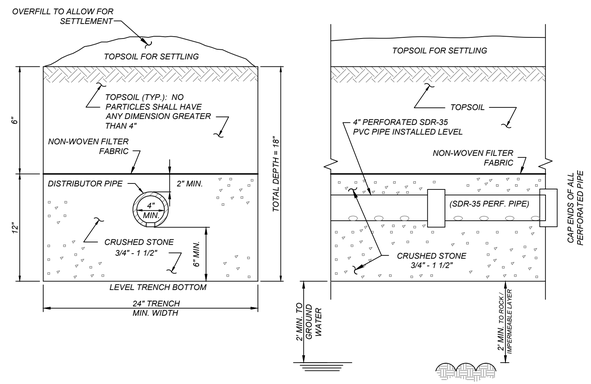


NOTES:

1. CONCRETE STRENGTH: 5,000 P.S.I. 28 DAYS.
2. STEEL REINFORCEMENT: 6" X 6" X 10 GA. STEEL WIRE MESH.
3. AIR ENTRAINED CONCRETE.
4. ALL UNUSED PENETRATIONS ARE TO BE PLUGGED & MADE WATERTIGHT.

DISTRIBUTION BOX DETAIL

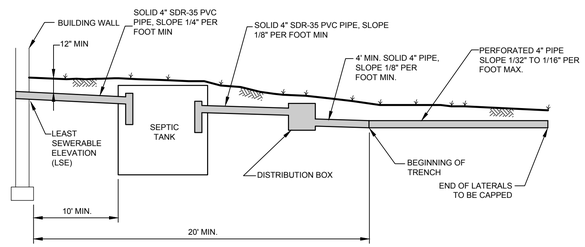
N.T.S.



TYPICAL LEACHING LINE DETAIL

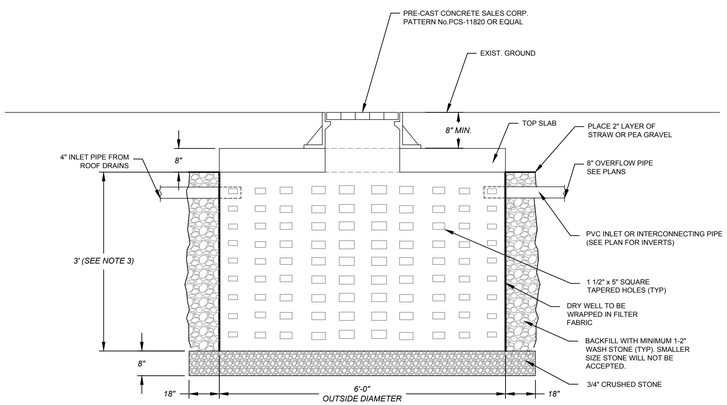
(ABSORPTION TRENCH)

N.T.S.



TYPICAL DISTRIBUTION PROFILE

N.T.S.

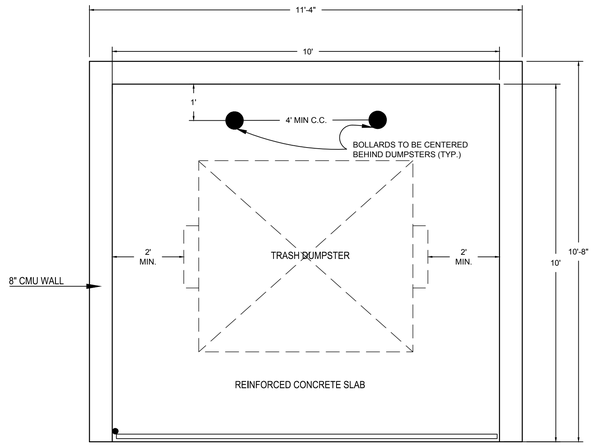


TYPICAL DRY WELL DETAIL

N.T.S.

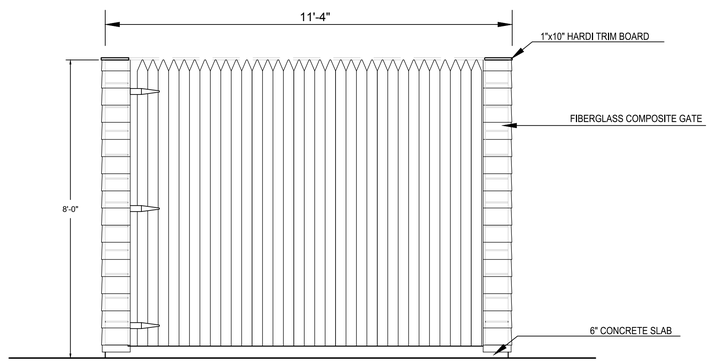
NOTES:

1. DRYWELL SHALL BE MANUFACTURED BY FORT MILLER CO. OR APPROVED EQUAL AND CAPABLE OF HS-20 LOADING.
2. CONTRACTOR TO PROVIDE SHOP DRAWINGS TO ARCHITECT FOR REVIEW AND APPROVAL PRIOR TO MANUFACTURING OF DRYWELL.
3. SEE GRADING & UTILITY PLAN FOR ELEVATIONS



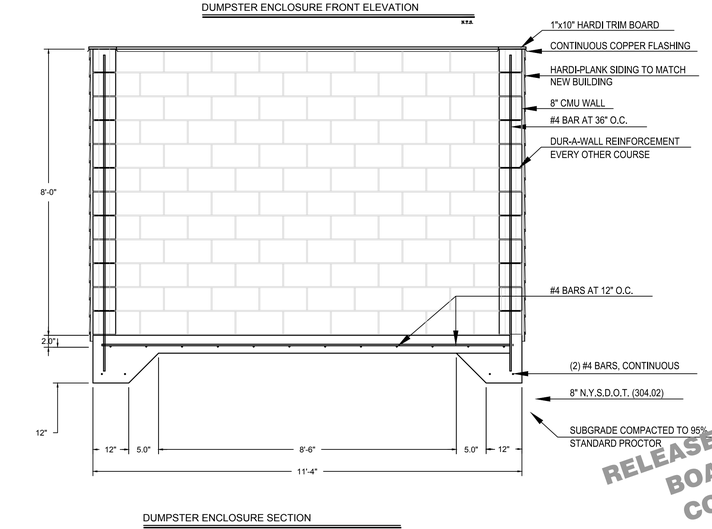
DUMPSTER ENCLOSURE PLAN VIEW

N.T.S.



DUMPSTER ENCLOSURE FRONT ELEVATION

N.T.S.



DUMPSTER ENCLOSURE SECTION

N.T.S.

RELEASED FOR PLANNING BOARD REVIEW & COMMENT ONLY
Not For Construction

REVISIONS				
NO.	DATE	BY	CHKED	DESCRIPTION

64 GREEN STREET #1
HUDSON, NEW YORK 12534
TEL (518) 828-2300
FAX (518) 828-3963
CPLteam.com
ARCHITECTURE ▪ ENGINEERING ▪ PLANNING

NOKOMIS, LLC

TOWN OF NEW LEBANON COLUMBIA COUNTY, NY

DATE:	OCT 2018
DRAWN:	BGR
DESIGNED:	RJJ
CHECKED:	RJJ
SCALE:	AS NOTED

NOKOMIS EDUCATIONAL CENTER

SITE DETAILS 2

PROJECT NUMBER 60041.0

DRAWING NUMBER C-802

Referenced Drawings: None
Drawing Name: Y:\sdsk\Proj\218054 mountain rd school\218054 11-6.dwg
Date last plotted: 11/9/2018 9:18 AM
Date last accessed: 11/8/2018 11:53 PM
Plotted By: Bryce Recer
IT IS A VIOLATION OF THE NEW YORK STATE EDUCATION LAW AND THE COMMISSIONER'S REGULATIONS FOR ANY PERSON, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED ARCHITECT, ENGINEER OR LAND SURVEYOR, TO ALTER A MYLAR IN ANY WAY. IF ANY MYLAR BEARING THE SEAL OF AN ARCHITECT, ENGINEER OR SURVEYOR IS ALTERED, THE ALTERING PART SHALL AFFIX TO THE DRAWING HIS/HER SEAL AND THE NOTATION "ALTERED BY" FOLLOWED BY HIS/HER SIGNATURE AND THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

617.20
Appendix B
Short Environmental Assessment Form

Instructions for Completing

Part 1 - Project Information. The applicant or project sponsor is responsible for the completion of Part 1. Responses become part of the application for approval or funding, are subject to public review, and may be subject to further verification. Complete Part 1 based on information currently available. If additional research or investigation would be needed to fully respond to any item, please answer as thoroughly as possible based on current information.

Complete all items in Part 1. You may also provide any additional information which you believe will be needed by or useful to the lead agency; attach additional pages as necessary to supplement any item.

Part 1 - Project and Sponsor Information

Name of Action or Project:
Nokomis Educational Center

Project Location (describe, and attach a location map):
Adams Crossing Road, New Lebanon NY 12062

Brief Description of Proposed Action:
The proposed project includes the construction of a new school building for educational use. The building will be 2 floors and have a footprint of approximately 5,125 sqft. The school will have a 9 spot paved parking lot along with a bus drop off area in the front of the school. There will be handicap access to the building and one associated parking space. The school will have its own on-site well as well as its own on-site wastewater disposal system. The parking lot will have at one (1) 12' light pole with associated under ground electric.

Name of Applicant or Sponsor:	Telephone:
NOKOMIS LLC	E-Mail:

Address:
PO BOX 695

City/PO:	State:	Zip Code:
NEW LEBANON	NY	12125

	NO	YES
1. Does the proposed action only involve the legislative adoption of a plan, local law, ordinance, administrative rule, or regulation? If Yes, attach a narrative description of the intent of the proposed action and the environmental resources that may be affected in the municipality and proceed to Part 2. If no, continue to question 2.	☑	☐
2. Does the proposed action require a permit, approval or funding from any other governmental Agency? If Yes, list agency(s) name and permit or approval: Site Plan Approval from the Town of New Lebanon Planning Board & Septic Approval from Columbia County Department of Health.	☐	☑

3.a. Total acreage of the site of the proposed action? 8.62 acres
b. Total acreage to be physically disturbed? .86 acres
c. Total acreage (project site and any contiguous properties) owned or controlled by the applicant or project sponsor? 8.62 acres

4. Check all land uses that occur on, adjoining and near the proposed action.
☐ Urban ☑ Rural (non-agriculture) ☐ Industrial ☐ Commercial ☑ Residential (suburban)
☐ Forest ☑ Agriculture ☐ Aquatic ☐ Other (specify): _____
☑ Parkland

	NO	YES	N/A
5. Is the proposed action, a. A permitted use under the zoning regulations?	☐	☑	☐
b. Consistent with the adopted comprehensive plan?	☐	☑	☐
6. Is the proposed action consistent with the predominant character of the existing built or natural landscape?	☐	☑	
7. Is the site of the proposed action located in, or does it adjoin, a state listed Critical Environmental Area? If Yes, identify: _____	☑	☐	
8. a. Will the proposed action result in a substantial increase in traffic above present levels?	☐	☑	
b. Are public transportation service(s) available at or near the site of the proposed action?	☑	☐	
c. Are any pedestrian accommodations or bicycle routes available on or near site of the proposed action?	☑	☐	
9. Does the proposed action meet or exceed the state energy code requirements? If the proposed action will exceed requirements, describe design features and technologies:	☐	☑	
10. Will the proposed action connect to an existing public/private water supply? If No, describe method for providing potable water: _____ On site well with distribution	☑	☐	
11. Will the proposed action connect to existing wastewater utilities? If No, describe method for providing wastewater treatment: _____ On site wastewater disposal system	☑	☐	
12. a. Does the site contain a structure that is listed on either the State or National Register of Historic Places?	☑	☐	
b. Is the proposed action located in an archeological sensitive area?	☑	☐	
13. a. Does any portion of the site of the proposed action, or lands adjoining the proposed action, contain wetlands or other waterbodies regulated by a federal, state or local agency?	☑	☐	
b. Would the proposed action physically alter, or encroach into, any existing wetland or waterbody? If Yes, identify the wetland or waterbody and extent of alterations in square feet or acres: _____	☑	☐	

14. Identify the typical habitat types that occur on, or are likely to be found on the project site. Check all that apply:
☐ Shoreline ☐ Forest ☑ Agricultural/grasslands ☐ Early mid-successional
☐ Wetland ☐ Urban ☐ Suburban

	NO	YES
15. Does the site of the proposed action contain any species of animal, or associated habitats, listed by the State or Federal government as threatened or endangered?	☑	☐
16. Is the project site located in the 100 year flood plain?	☑	☐
17. Will the proposed action create storm water discharge, either from point or non-point sources? If Yes, a. Will storm water discharges flow to adjacent properties? ☑ NO ☐ YES	☐	☑
b. Will storm water discharges be directed to established conveyance systems (runoff and storm drains)? If Yes, briefly describe: ☑ NO ☐ YES		

	NO	YES
18. Does the proposed action include construction or other activities that result in the impoundment of water or other liquids (e.g. retention pond, waste lagoon, dam)? If Yes, explain purpose and size:	☑	☐
19. Has the site of the proposed action or an adjoining property been the location of an active or closed solid waste management facility? If Yes, describe:	☑	☐
20. Has the site of the proposed action or an adjoining property been the subject of remediation (ongoing or completed) for hazardous waste? If Yes, describe:	☑	☐

I AFFIRM THAT THE INFORMATION PROVIDED ABOVE IS TRUE AND ACCURATE TO THE BEST OF MY KNOWLEDGE

Applicant/sponsor name: Allen Stack Date: 10/1/2018

Signature: Allen Stack (Manager Nokomis, LLC)

Part 2 - Impact Assessment. The Lead Agency is responsible for the completion of Part 2. Answer all of the following questions in Part 2 using the information contained in Part 1 and other materials submitted by the project sponsor or otherwise available to the reviewer. When answering the questions the reviewer should be guided by the concept "Have my responses been reasonable considering the scale and context of the proposed action?"

	No, or small impact may occur	Moderate to large impact may occur
1. Will the proposed action create a material conflict with an adopted land use plan or zoning regulations?	☐	☐
2. Will the proposed action result in a change in the use or intensity of use of land?	☐	☐
3. Will the proposed action impair the character or quality of the existing community?	☐	☐
4. Will the proposed action have an impact on the environmental characteristics that caused the establishment of a Critical Environmental Area (CEA)?	☐	☐
5. Will the proposed action result in an adverse change in the existing level of traffic or affect existing infrastructure for mass transit, biking or walkway?	☐	☐
6. Will the proposed action cause an increase in the use of energy and it fails to incorporate reasonably available energy conservation or renewable energy opportunities?	☐	☐
7. Will the proposed action impact existing: a. public / private water supplies?	☐	☐
b. public / private wastewater treatment utilities?	☐	☐
8. Will the proposed action impair the character or quality of important historic, archaeological, architectural or aesthetic resources?	☐	☐
9. Will the proposed action result in an adverse change to natural resources (e.g., wetlands, waterbodies, groundwater, air quality, flora and fauna)?	☐	☐

	No, or small impact may occur	Moderate to large impact may occur
10. Will the proposed action result in an increase in the potential for erosion, flooding or drainage problems?	☐	☐
11. Will the proposed action create a hazard to environmental resources or human health?	☐	☐

Part 3 - Determination of significance. The Lead Agency is responsible for the completion of Part 3. For every question in Part 2 that was answered "moderate to large impact may occur", or if there is a need to explain why a particular element of the proposed action may or will not result in a significant adverse environmental impact, please complete Part 3. Part 3 should, in sufficient detail, identify the impact, including any measures or design elements that have been included by the project sponsor to avoid or reduce impacts. Part 3 should also explain how the lead agency determined that the impact may or will not be significant. Each potential impact should be assessed considering its setting, probability of occurring, duration, irreversibility, geographic scope and magnitude. Also consider the potential for short-term, long-term and cumulative impacts.

☐ Check this box if you have determined, based on the information and analysis above, and any supporting documentation, that the proposed action may result in one or more potentially large or significant adverse impacts and an environmental impact statement is required.

☐ Check this box if you have determined, based on the information and analysis above, and any supporting documentation, that the proposed action will not result in any significant adverse environmental impacts.

Name of Lead Agency	Date
Print or Type Name of Responsible Officer in Lead Agency	Title of Responsible Officer
Signature of Responsible Officer in Lead Agency	Signature of Preparer (if different from Responsible Officer)

Planning Board Application
Town of New Lebanon Planning Department
PO Box 328 | New Lebanon, NY 12125 | Ph: 518.794.8884 | Fax: 518.794.8883

CHECK APPROVAL(S) REQUESTED
_X_ Minor Subdivision (includes lot line adjustments)
___Major Subdivision
___Site Plan Review (SPR)
_X_ Special Permit with Site Plan Approval (SP/SPR)

FOR OFFICAL USE:
Date Rec'd _____ PB# _____
Building Permit Application # _____
Fee Paid: _____

Date: 10/19/2018

Tax Map No(s).:104800-8.-2-80, 104800-8.-2-81, 104800-8.-2-82
Note: for lot line adjustments, incl. TM# of adjoining parcel(s) involved

Project Name: Nokomis Educational Center

Site Location: Adams Crossing Road, New Lebanon NY 12062

Total number of lots being created: _0, (3 lots down to 1 lot)_ Total Land Area: 8.62 Acres

Applicant Information

Name of Applicant (please print): NOKOMIS LLC

Mailing address: P.O. BOX 695 NEW LEBANON, NY 12125

Phone: _____ Cell: 518-965-8987 Fax: _____

Signature: (manager Nokomis, LLC)

*if the applicant is not the property owner, please submit owner authorization

Property Owner Information

Name if Different from Applicant: (please print) Same as Applicant

Mailing Address Different from Applicant:

_____ Phone: _____

Cell: _____ Fax: _____ Signature:

Surveyor Information

Surveyor Name: Jonathan Verderber License No. 050912

Company Name & Address: CPL Architecture, Engineering, Planning 9 Elks Lane Poughkeepsie, NY 12601

Phone: 845-454-3411 ex.22 Cell: _____ Fax: _____

Engineer Information

Engineer Name: Raymond Jurkowski License No. 075365

Company Name & Address: CPL Architecture, Engineering, Planning 64 Green Street, Hudson NY 12534

Phone: 518-828-2300 Cell: _____ Fax: _____

PLEASE CHECK APPROPRIATE SPACE: I consent to the extension of the 62-day Public Hearing and review period. (See instruction item #4). ___Yes _X_No To be determined and mutually agreed upon by applicant and the Planning Board if an extension becomes necessary.

Please describe the nature of your proposed project, including the proposed use and a construction schedule (attach additional paper if needed):

The Proposed project involves installation and construction of a new educational nature school. The two floor school building will be constructed with appropriate parking and access for all to attend. The total square footage of the proposed building is 5,125 sqft. There will be an on-site well as well as a on-site wastewater disposal system. Construction completion date will be assumed to be next July 2019 (subject to change).

X Yes __No **Is the access road to the project a Town/County or State Road or highway?** (New York State Town Law: § 280-a)

__Yes X No **Is any of the property within the flood plain?** If yes, the flood plain area will need to be clearly labeled and lightly shaded on your survey map. (The County will not except dark shading).

__Yes X No **Is any of the property within a DEC regulated wetland**? If yes, you may be required to contact DEC to conduct a site visit to flag the area.

__Yes X No **Is any of the property within an ACOE regulated wetland?** (ACOE = Army Corps. Of Engineers)

__Yes X No **Will one or more acres be disturbed by this project?** If yes, you will be required [under NYS DEC regulations] to develop a Storm Water Pollution Prevention Plan SWPPP in order to obtain coverage under the State Pollutant Discharge Elimination System (SPDES) General Permit for Stormwater Discharges from Construction Activity.

The project occurring within 500 feet of (Check all that may apply)**:**

___A municipal Boundary
___County or State Park or recreation either existing or proposed
_X_State or County road or right-of-way, either existing or proposed
___State or County owned building or institution
___Stream or drainage channel owned by the County or for which channel lines have been established
___Active farm operation within a County Defined Ag. District

BY SIGNING THIS APPLICATION, THE UNDERSIGNED DOES HEREBY GRANT PERMISSION TO MEMBERS OF THE TOWN OF NEW LEBANON PLANNING/BUILDING DEPARTMENT TO ENTER UPON MY PROPERTY FOR THE PURPOSE OF EXAMINING SAME BY REASON OF AN APPLICATION NOW PENDING BEFORE SAID BOARD

STATE OF NEW YORK }
COUNTY OF COLUMBIA } ss
TOWN OF NEW LEBANON }

I, Allen Stack (manager Nokomis,LLC) hereby depose and say that all statements contained in the papers submitted herewith are true.

SWORN to before me this _____ day
Of _____, 20_____.

NOTARY PUBLIC _____

_____

GENERAL INSTRUCTIONS

PLEASE READ

1. Attach hereto a copy of the duly filed deed indicating the current ownership of the subject property. If the owner is a corporation, attach a list of all directors, officers and major stockholders. If applicant is a contract vendee, then attach a copy of the duly executed contract of sale.

2. If the applicant is not the owner, submit a letter signed by the property owner granting authority to the applicant to act on this application.

3. The applicant shall submit a list of the names and addresses of all adjoining property owners and of those property owners directly across all road frontages adjoining the proposed development. The list shall also contain the Town of New Lebanon current tax map numbers for each parcel.

4. NYS Town Law and/or the Town of New Lebanon Town Code obligate the Planning Board to conduct a Public Hearing with respect certain projects within 62 days following receipt of a **COMPLETE** application for the project by the Planning Board Clerk. Due to the complexity of many proposals and the numerous technical and procedural requirements of all the applicable laws and regulations, many applications may be found to be incomplete or deficient and, therefore, not ready for Public Hearing nor Planning Board approval. Thus, a determination based upon all pertinent facts and circumstances cannot always be rendered by the Planning Board within the 62 days. To do so might result in a disapproval when, with further information or changes, and SEQR compliance, approval or approval with modifications might otherwise occur. In such cases, Planning Board staff will notify the applicant of missing or incomplete items as soon as possible.

   In light of the above, you are asked to indicate, by checking the appropriate space on the application form, whether you consent to the extension of the 62-day public hearing period or review period, for so long as may reasonably be necessary to generate a submission which is complete and in conformity with all pertinent requirements. You may revoke your consent at any time by communicating that fact in writing to the Clerk of the Planning Board whereupon your project proposal will be scheduled for the next regularly scheduled meeting of the Planning Board.

5. Please be advised that the Planning Board review process often involves engineering, legal and other professional skills. While the Planning/Building Department staff will provide guidance and assistance within reasonable limits, the responsibility for the proper presentation of the proposal lies with the applicant and the applicant's advisors, and not upon the Planning/Building Department or its staff.

6. With this application you will be given a checklist listing submittal criteria relating to your specific application. The checklists are provided as a courtesy to assist applicants in preparing for their first Planning Board meeting and does not waive any provisions of State or Town Laws. The Planning Board reserves the right to request additional information not included on this checklist.

7. Fee Schedule: Individual fee schedules are listed on the pertinent checklist for your specific project and are subject to change from time to time at the approval of the Town Board. Escrow accounts will be established as required.

NOTE: *Additional fees may be required in an amount necessary to defray additional costs of special consultants engaged by the Town to assist in the review of an application.*

Chapter 149. NOTIFICATION OF ABUTTING LANDOWNERS

[HISTORY: Adopted by the Town Board of the Town of New Lebanon 1-13-2003. Amendments noted where applicable.]

§ 149-1. Notification procedure.

In any action that requires the notification of abutters, abutter notification will be the applicants responsibility, and abutter notification must be completed using the following procedures:

A. Applicant will prepare a list of abutters and have the list approved by the Planning and Zoning Clerk to ensure that all abutters are listed;

B. Applicant will send a certified letter to all abutters no less than 10 days prior to the public hearing; and

C. Applicant will provide the Planning Board or Zoning Board of Appeals (whichever is applicable) with a copy of the letter and the receipts for the certified mailings at the public hearing.

DRAINAGE REPORT

NOKOMIS EDUCATIONAL CENTER

ARCHITECTURE
ENGINEERING
PLANNING
CPLteam.com

November 9, 2018

Table of Contents:

Summary of Drainage Impacts: 3
Background: 3
Project Soils: 3
TABLE 1 – SOIL TYPE 3
Construction History: 4
Field Observations/ Research: 4
Hydrology: 4
Open Channels: 5
Storm Drainage Conveyance System(s): 5
Erosion & Sediment Control & Stormwater Management: 5
APPENDIX A 6
NETWORK ANALYSIS 6
APPENDIX B 7
SUBCATCHMENT DRAINAGE MAPS 7
APPENDIX C 8
NRCS SOIL MAP & REPORT 8

Summary of Drainage Impacts:

There is currently no drainage system on site, however, there is a road side swale at the front of lot. This swale is to be used as the discharge point for the proposed site. It appears that the existing drainage system (road side swale) currently in use will see no effect from the proposed construction. Any runoff currently generated by the site is entering the drainage system to no adverse effect. Therefore, **this project will not increase water flow onto the Town road**, the proposed conditions will contribute the same amount of flow into the system as existing conditions. Runoff from the proposed conditions will be treated before entering the state highway drainage system to ensure water quality.

EVENT	EXISTING	PROPOSED
10-YR	.01 cfs	1.04 cfs

Background:

The project site was previously a farm field. A new school building is proposed for the location. The site will need drainage to accomidate the runoff due to the increase in impervious area on the site. The site has a very low slope along with very good soils. Makes for a perfect location to have infiltration. Due to the increase in imperivous area approximately 1 cfs of stormwater will need to be stored and discharged by the new site.

Project Soils:

See Appendix D for the NRCS soils map and report within the project area. The following soil types and hydrologic groups are present within the project drainage area:

TABLE 1 – SOIL TYPE

Soil Symbol, Name, % Slope Range	Hydrologic Group (HSG)	Texture	Character	% within project drainage area
HoA, Hoosic gravelly sandy loam, 0-3 percent slope	A	Sandy loam	Well drained	100%

There is one soil series and one hydrologic soil group within the project drainage area. The soil series is HoA, or Hoosic gravelly sandy loam, as seen in the table above. This soil is a member of the A hydrologic soil group, A soils have high infiltration rates when thoroughly wet. These soils are mainly deep, well drained to excessively drained sands and gravelly sands. Depth to seasaonal groundwater is unknown. Also, depth to bedrock unknown.

Construction History:

There has been no development on this project site. The only existing drainage system that can be considered as part of the project site is the road side swale. An age for the swale is unknown but would have been constructed the same time Adams Crossing Road was built. Of the surrounding parcels only one have had any development, however it is uknown if there is a drainage system on that property.

Field Observations/ Research:

A site visit/field investigation was performed on _____. The purpose of this visit was to perform deep test holes with the Columbia County Department of Health to check for the adequacy of the soils for an in ground septic system for the new school building. The site was found to have great soils for infiltration as seen by the soil survey information above. The site was found to be quite flat thus decreasing the flow of runoff and allowing for more infiltration. To the north resides the Mountain Road School, there was no noticable drainage system seen at the meeting. The north westerly side of the project site resides a steep sloped area. The steep slope is a natural discharge location for the existing runoff. See attached pictures for further detail of the site and its surroundings.

Hydrology:

Table 8-2 Design Flood Frequencies (in years) For Drainage Structures and Channels[1]

Highway Functional Class	Culverts[2]	Storm Drainage Systems	Relocated Natural Channels[3]	Ditches[4]
Interstates and Other Freeways	50	10 [5]	--	25
Principal Arterials	50	10 [5]	--	25
Minor Arterials, Collectors/Local Roads and Streets	50 [6]	5 [7]	--	10

1. The values in this table are typical. The selected value for a project should be based upon an assessment of the likely damage to the highway and adjacent landowners from a given flow and the costs of the drainage facility. Note: 100-year requirements must be checked if the proposed highway is in an established regulatory floodway or floodplain.

2. The check flow, used to assess the performance of the facility, should be the 100 year storm event.

3. Relocated natural channels should have the same flow characteristics (geometrics and slope) as the existing channel and should be provided with a lining having roughness characteristics similar to the existing channel.

4. Including lining material.

5. As per 23CFR650A, and Table 1-1 of HDS 2, a 50-year frequency shall be used for design at the following locations where no overflow relief is available:

    a. sag vertical curves connecting negative and positive grades.
    b. other locations such as underpasses, depressed roadways, etc.

6. A design flood frequency of 10 or 25 years is acceptable if documented in the Design Approval Document, and when identified after design approval, in the drainage report. A design flood frequency of 10 or 25 years should be used in the design of driveway culverts and similar structures.

7. Use a 25-year frequency at the following locations where no overflow relief is available:

   a. sag vertical curves connecting negative and positive grades.
   b. other locations such as underpasses, depressed roadways, etc.

The drainage areas for this project were delineated by topographic survey prepared by this office. One drawing sheet was created, this sheet includes both an existing conditions and proposed conditions drainage plans. The existing conditions drainage map shows the site prior to development. The site consists of fairly flat farm land. For the analysis for the existing conditions two drainage areas were delineated. Then using TR-55 based HydroCAD 10.00 runoff flow rates were calculated. Three drainage areas were delineated for the proposed conditions. DA 2 consists of the undistribed portion of the project site that will remain a flat grassy field. DA 1 includes most of the parking lot, sidewalks, and the entire school building, DA 1 has been graded to drain the stormwater to either of the drywells at the front of the property. DA 3 will consist of a very small portion on the parking lot and the sidewalk off the back of the building. There will be a roof leader from the building into the first dry well. This drywell will have a grate to collect surface runoff as well as an overflow pipe to discharge overflow to the second drywell. Modeling of the proposed conditions with 3 subcatchments results in an equal peak flow rate to match the existing conditions.

Open Channels:

The existing drainage swale along the road will be used as the main discharge location for the stormwater from the proposed drainage areas. There will be no alteration to the drainage swale after the proposed exit location. Grading throughout the drainage swale is proposed to stay similar to the existing conditions.

Storm Drainage Conveyance System(s):

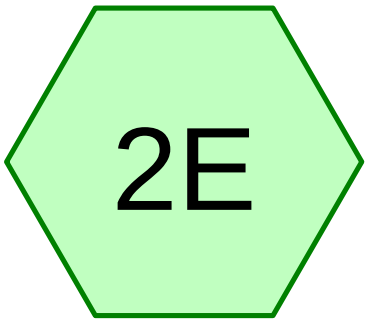
A drainage system will be constructed under the proposed gravel driveway/parking lot. The system will consist of two (2) dry wells. Each dry well will consist of a rim at grade to collect surface runoff. Dry well 1 will have an 4” PVC inlet from the roof leaders at the school building. There will also be an 8” PVC overflow pipe diverting high flow events to dry well 2. The regraded drainage swale will collect runoff and direct it to the second dry well.

Erosion & Sediment Control & Stormwater Management:

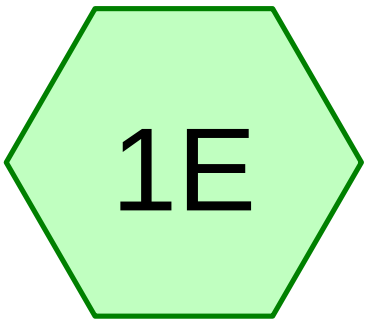
The project will follow the Erosion & Sediment Control provided for project disturbances < 1 acre.
The erosion and sediment control measures for the proposed project include silt fence, soil stockpile and stablized construction enterances.

APPENDIX A

NETWORK ANALYSIS



PRE 2



PRE 1

Subcat Reach Pond Link

Routing Diagram for NOKOMIS PRE
Prepared by Morris Associates, Printed 11/9/2018
HydroCAD® 10.00-14 s/n 04017 © 2015 HydroCAD Software Solutions LLC

Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
2.858	39	Pasture/grassland/range, Good, HSG A (1E, 2E)
2.858	**39**	**TOTAL AREA**

Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
2.858	HSG A	1E, 2E
0.000	HSG B	
0.000	HSG C	
0.000	HSG D	
0.000	Other	
2.858		**TOTAL AREA**

Ground Covers (all nodes)

HSG-A (acres)	HSG-B (acres)	HSG-C (acres)	HSG-D (acres)	Other (acres)	Total (acres)	Ground Cover	Subcatchment Numbers
2.858	0.000	0.000	0.000	0.000	2.858	Pasture/grassland/range, Good	1E, 2E
2.858	**0.000**	**0.000**	**0.000**	**0.000**	**2.858**	**TOTAL AREA**	

Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 1E: PRE 1 Runoff Area=94,743 sf 0.00% Impervious Runoff Depth=0.00"
Flow Length=390' Tc=24.3 min CN=39 Runoff=0.00 cfs 0.000 af

Subcatchment 2E: PRE 2 Runoff Area=0.683 ac 0.00% Impervious Runoff Depth=0.00"
Flow Length=272' Tc=24.2 min CN=39 Runoff=0.00 cfs 0.000 af

Total Runoff Area = 2.858 ac Runoff Volume = 0.000 af Average Runoff Depth = 0.00"
100.00% Pervious = 2.858 ac 0.00% Impervious = 0.000 ac

Summary for Subcatchment 1E: PRE 1

[45] Hint: Runoff=Zero

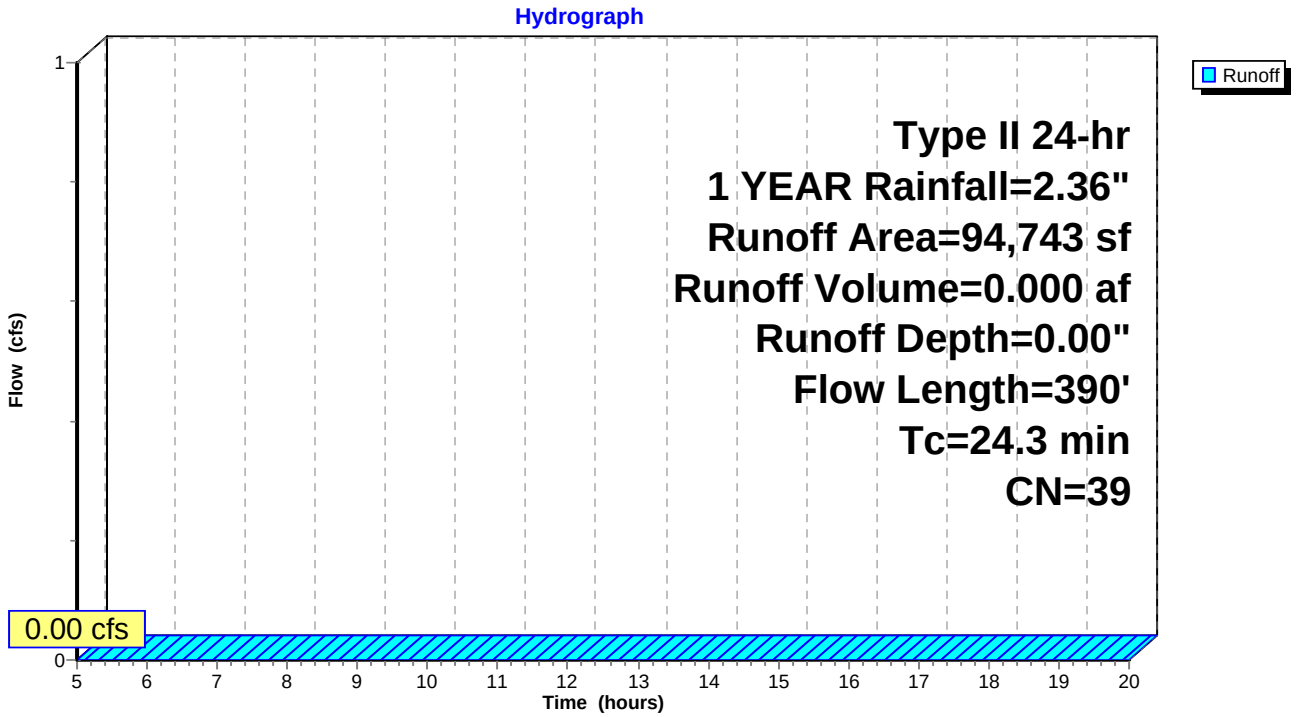
Runoff = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 1 YEAR Rainfall=2.36"

Area (sf)	CN	Description
94,743	39	Pasture/grassland/range, Good, HSG A
94,743		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
20.2	100	0.0100	0.08		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.78"
3.5	105	0.0050	0.49		**Shallow Concentrated Flow, FIELD** Short Grass Pasture Kv= 7.0 fps
0.6	185	0.0110	5.18	116.52	**Channel Flow,** Area= 22.5 sf Perim= 36.0' r= 0.63' n= 0.022 Earth, clean & straight
24.3	390	Total			

Subcatchment 1E: PRE 1



Summary for Subcatchment 2E: PRE 2

[45] Hint: Runoff=Zero

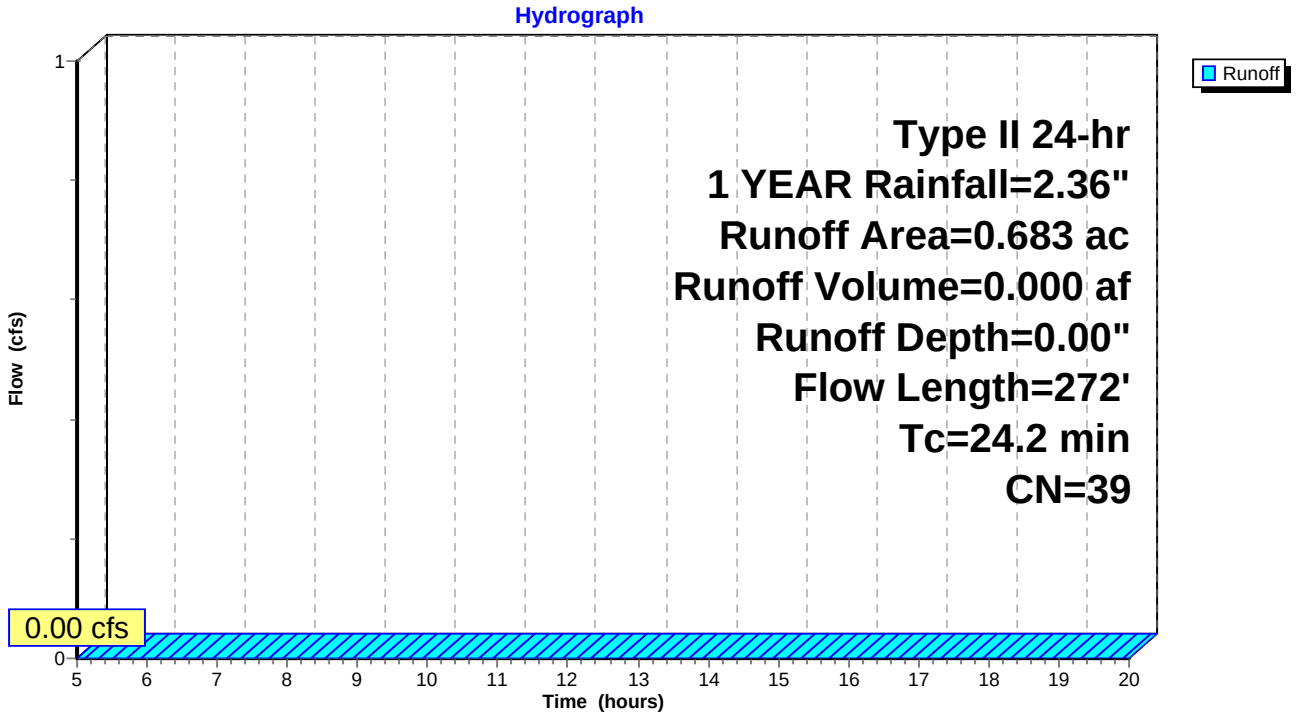
Runoff = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 1 YEAR Rainfall=2.36"

Area (ac)	CN	Description
0.683	39	Pasture/grassland/range, Good, HSG A
0.683		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
17.7	100	0.0140	0.09		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.78"
6.5	172	0.0040	0.44		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
24.2	272	Total			

Subcatchment 2E: PRE 2



Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 1E: PRE 1 Runoff Area=94,743 sf 0.00% Impervious Runoff Depth>0.03"
Flow Length=390' Tc=24.3 min CN=39 Runoff=0.01 cfs 0.006 af

Subcatchment 2E: PRE 2 Runoff Area=0.683 ac 0.00% Impervious Runoff Depth>0.03"
Flow Length=272' Tc=24.2 min CN=39 Runoff=0.00 cfs 0.002 af

Total Runoff Area = 2.858 ac Runoff Volume = 0.008 af Average Runoff Depth = 0.03"
100.00% Pervious = 2.858 ac 0.00% Impervious = 0.000 ac

Summary for Subcatchment 1E: PRE 1

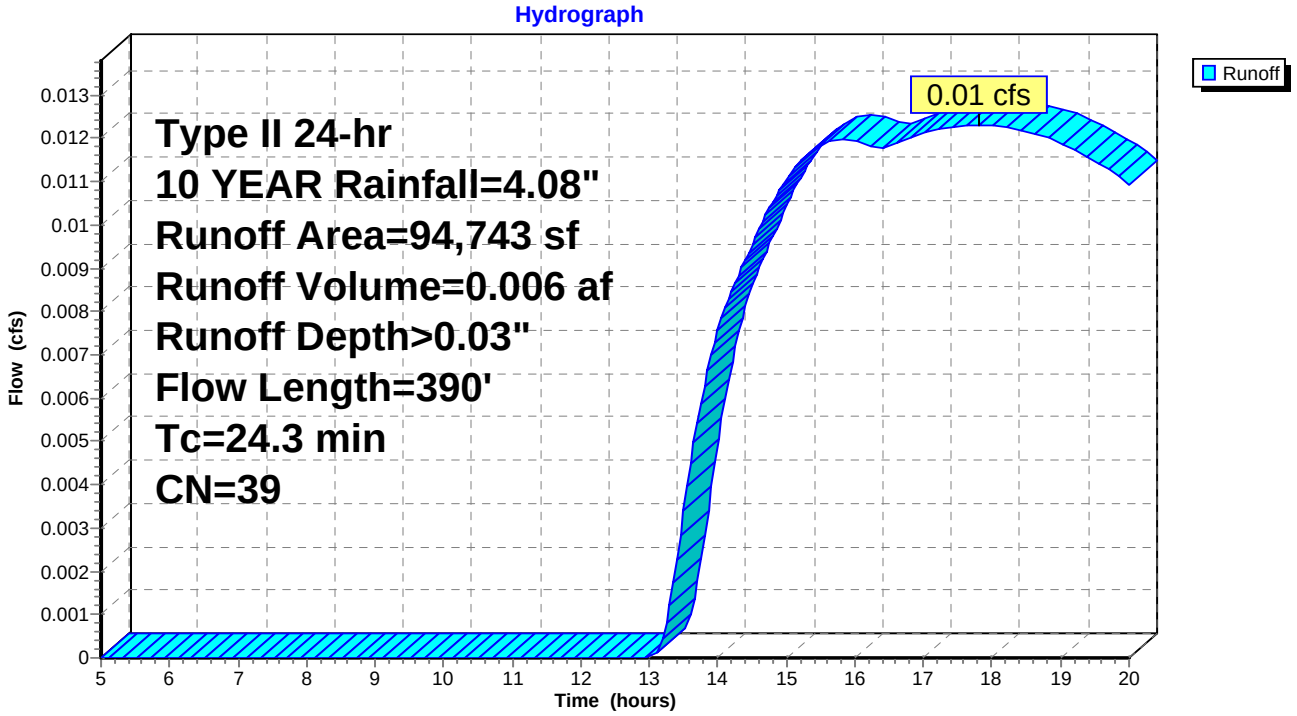
Runoff = 0.01 cfs @ 17.80 hrs, Volume= 0.006 af, Depth> 0.03"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 10 YEAR Rainfall=4.08"

Area (sf)	CN	Description
94,743	39	Pasture/grassland/range, Good, HSG A
94,743		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
20.2	100	0.0100	0.08		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.78"
3.5	105	0.0050	0.49		**Shallow Concentrated Flow, FIELD** Short Grass Pasture Kv= 7.0 fps
0.6	185	0.0110	5.18	116.52	**Channel Flow,** Area= 22.5 sf Perim= 36.0' r= 0.63' n= 0.022 Earth, clean & straight
24.3	390	Total			

Subcatchment 1E: PRE 1



Summary for Subcatchment 2E: PRE 2

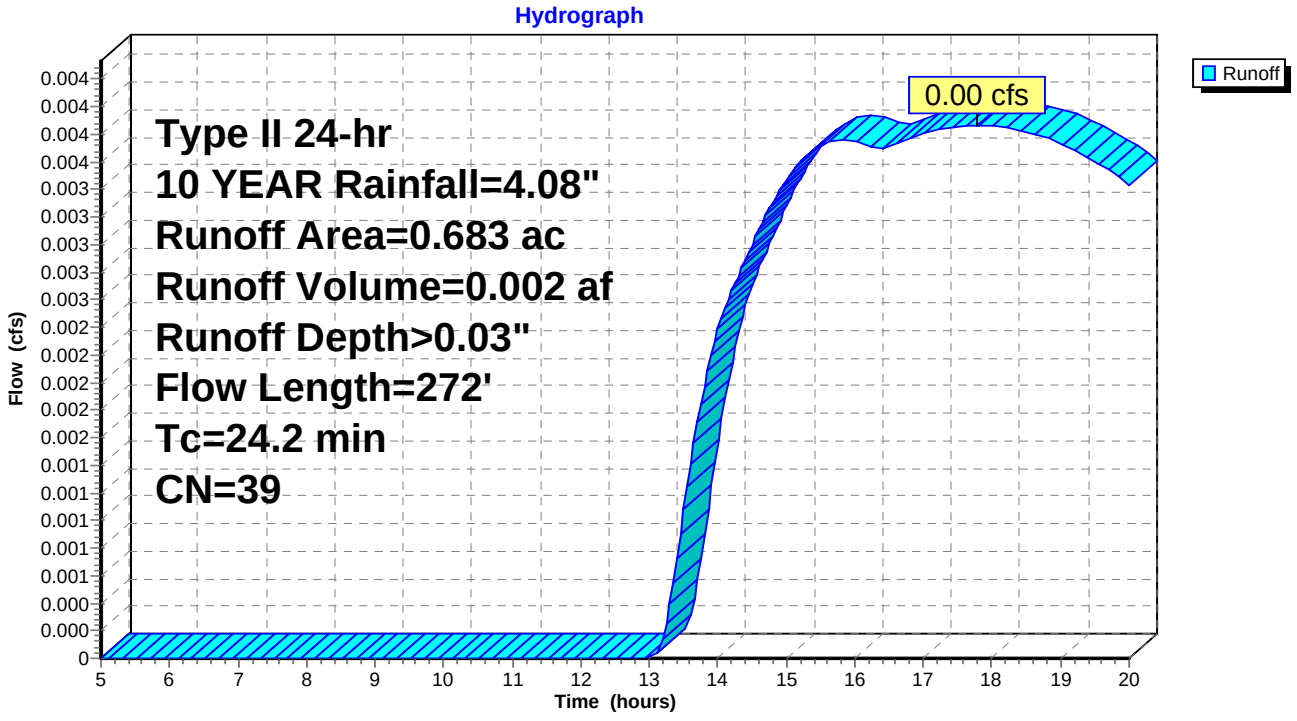
Runoff = 0.00 cfs @ 17.79 hrs, Volume= 0.002 af, Depth> 0.03"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 10 YEAR Rainfall=4.08"

Area (ac)	CN	Description
0.683	39	Pasture/grassland/range, Good, HSG A
0.683		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
17.7	100	0.0140	0.09		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.78"
6.5	172	0.0040	0.44		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
24.2	272	Total			

Subcatchment 2E: PRE 2



Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 1E: PRE 1 Runoff Area=94,743 sf 0.00% Impervious Runoff Depth=0.00"
Flow Length=390' Tc=24.3 min CN=39 Runoff=0.00 cfs 0.000 af

Subcatchment 2E: PRE 2 Runoff Area=0.683 ac 0.00% Impervious Runoff Depth=0.00"
Flow Length=272' Tc=24.2 min CN=39 Runoff=0.00 cfs 0.000 af

Total Runoff Area = 2.858 ac Runoff Volume = 0.000 af Average Runoff Depth = 0.00"
100.00% Pervious = 2.858 ac 0.00% Impervious = 0.000 ac

Summary for Subcatchment 1E: PRE 1

[45] Hint: Runoff=Zero

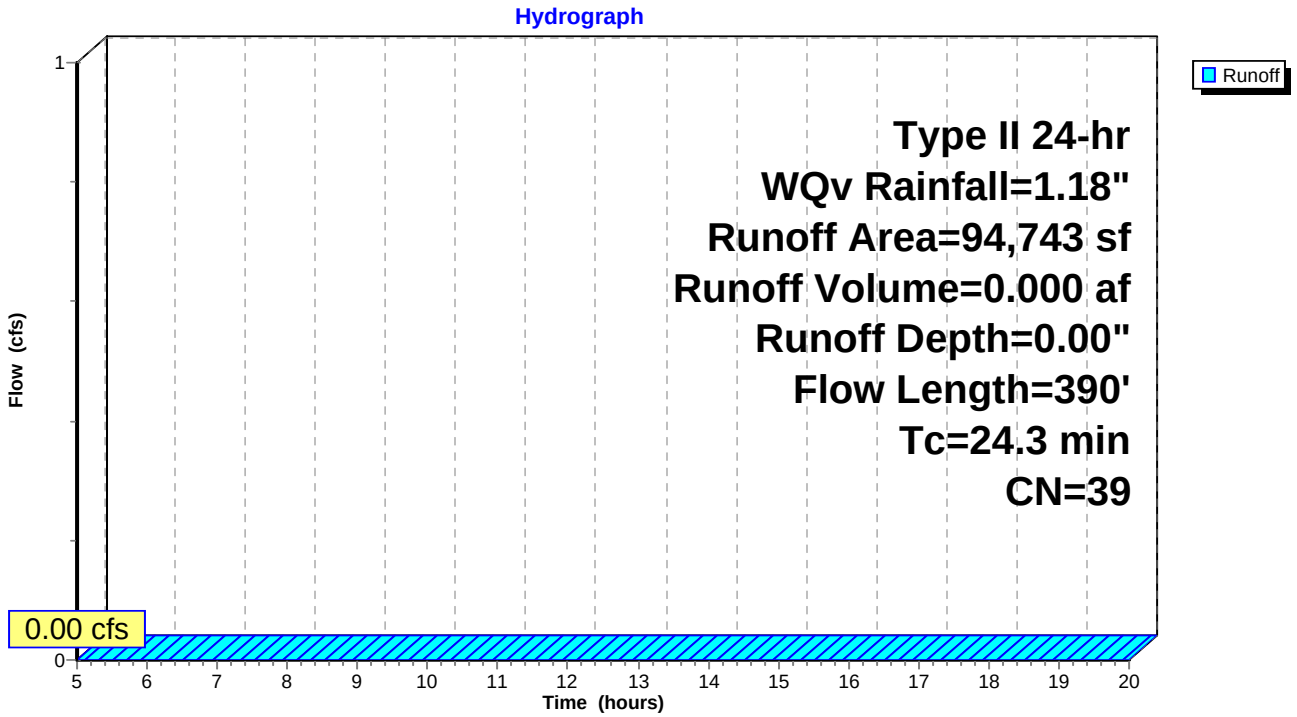
Runoff = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr WQv Rainfall=1.18"

Area (sf)	CN	Description
94,743	39	Pasture/grassland/range, Good, HSG A
94,743		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
20.2	100	0.0100	0.08		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.78"
3.5	105	0.0050	0.49		**Shallow Concentrated Flow, FIELD** Short Grass Pasture Kv= 7.0 fps
0.6	185	0.0110	5.18	116.52	**Channel Flow,** Area= 22.5 sf Perim= 36.0' r= 0.63' n= 0.022 Earth, clean & straight
24.3	390	Total			

Subcatchment 1E: PRE 1



Summary for Subcatchment 2E: PRE 2

[45] Hint: Runoff=Zero

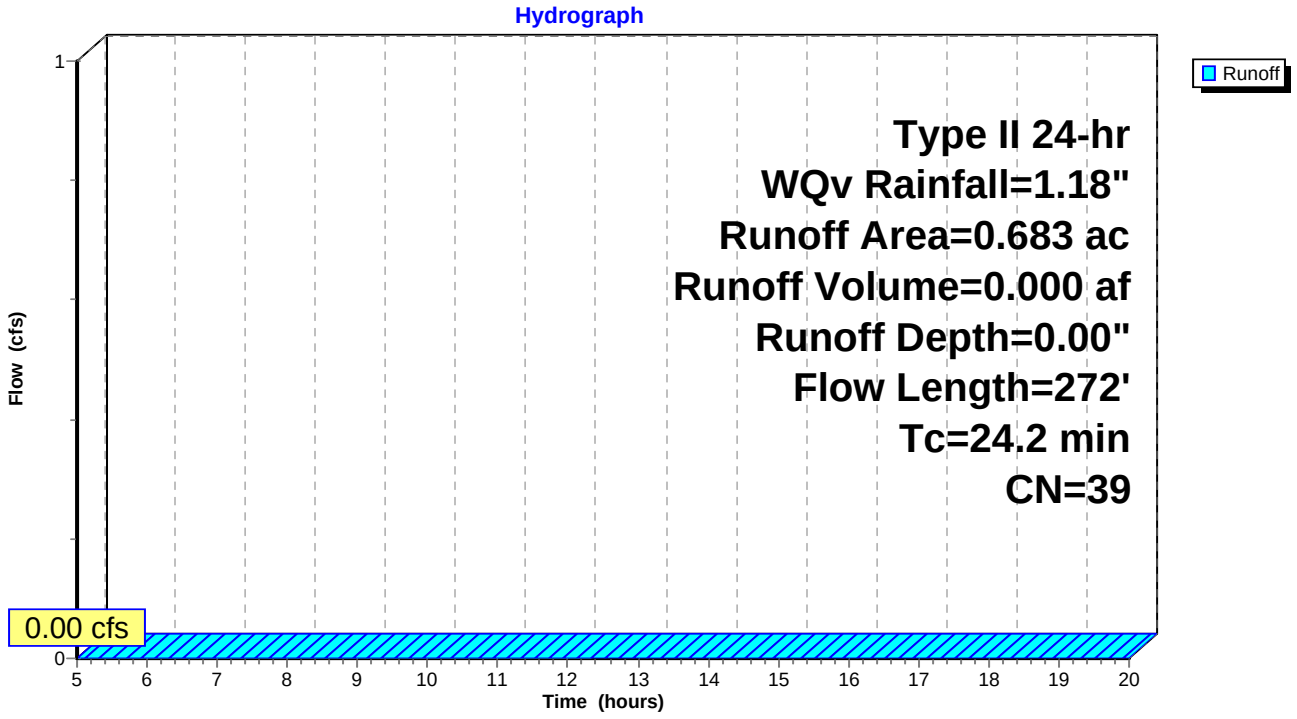
Runoff = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af, Depth= 0.00"

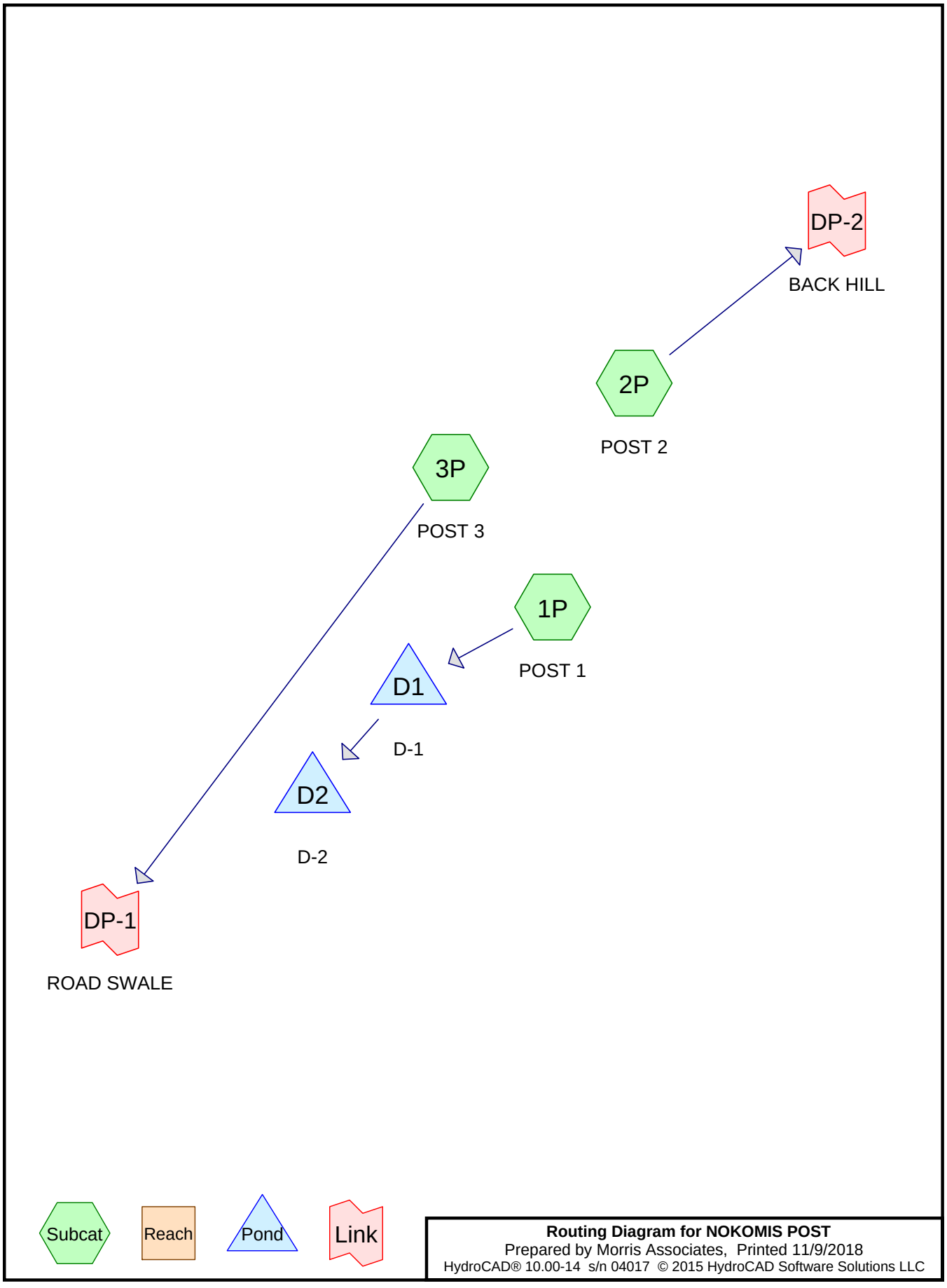
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr WQv Rainfall=1.18"

Area (ac)	CN	Description
0.683	39	Pasture/grassland/range, Good, HSG A
0.683		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
17.7	100	0.0140	0.09		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.78"
6.5	172	0.0040	0.44		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
24.2	272	Total			

Subcatchment 2E: PRE 2





Routing Diagram for NOKOMIS POST
Prepared by Morris Associates, Printed 11/9/2018
HydroCAD® 10.00-14 s/n 04017 © 2015 HydroCAD Software Solutions LLC

Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
2.515	39	Pasture/grassland/range, Good, HSG A (1P, 2P, 3P)
0.254	98	Paved parking, HSG A (1P, 3P)
0.080	98	Roofs, HSG A (1P)
2.850	**46**	**TOTAL AREA**

Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
2.850	HSG A	1P, 2P, 3P
0.000	HSG B	
0.000	HSG C	
0.000	HSG D	
0.000	Other	
2.850		**TOTAL AREA**

Ground Covers (all nodes)

HSG-A (acres)	HSG-B (acres)	HSG-C (acres)	HSG-D (acres)	Other (acres)	Total (acres)	Ground Cover	Subcatchment Numbers
2.515	0.000	0.000	0.000	0.000	2.515	Pasture/grassland/range, Good	1P, 2P, 3P
0.254	0.000	0.000	0.000	0.000	0.254	Paved parking	1P, 3P
0.080	0.000	0.000	0.000	0.000	0.080	Roofs	1P
2.850	**0.000**	**0.000**	**0.000**	**0.000**	**2.850**	**TOTAL AREA**	

Pipe Listing (all nodes)

Line#	Node Number	In-Invert (feet)	Out-Invert (feet)	Length (feet)	Slope (ft/ft)	n	Diam/Width (inches)	Height (inches)	Inside-Fill (inches)
1	D1	96.85	95.55	104.1	0.0125	0.013	8.0	0.0	0.0

Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 1P: POST 1 Runoff Area=35,145 sf 35.79% Impervious Runoff Depth>0.11"
Flow Length=115' Tc=6.0 min CN=60 Runoff=0.05 cfs 0.007 af

Subcatchment 2P: POST 2 Runoff Area=0.683 ac 0.00% Impervious Runoff Depth=0.00"
Flow Length=272' Tc=24.2 min CN=39 Runoff=0.00 cfs 0.000 af

Subcatchment 3P: POST 3 Runoff Area=59,230 sf 3.34% Impervious Runoff Depth=0.00"
Flow Length=170' Tc=15.4 min CN=41 Runoff=0.00 cfs 0.000 af

Pond D1: D-1 Peak Elev=95.27' Storage=0.000 af Inflow=0.05 cfs 0.007 af
Discarded=0.05 cfs 0.007 af Primary=0.00 cfs 0.000 af Outflow=0.05 cfs 0.007 af

Pond D2: D-2 Peak Elev=93.97' Storage=0.000 af Inflow=0.00 cfs 0.000 af
Outflow=0.00 cfs 0.000 af

Link DP-1: ROAD SWALE Inflow=0.00 cfs 0.000 af
Primary=0.00 cfs 0.000 af

Link DP-2: BACK HILL Inflow=0.00 cfs 0.000 af
Primary=0.00 cfs 0.000 af

Total Runoff Area = 2.850 ac Runoff Volume = 0.007 af Average Runoff Depth = 0.03"
88.27% Pervious = 2.515 ac 11.73% Impervious = 0.334 ac

Summary for Subcatchment 1P: POST 1

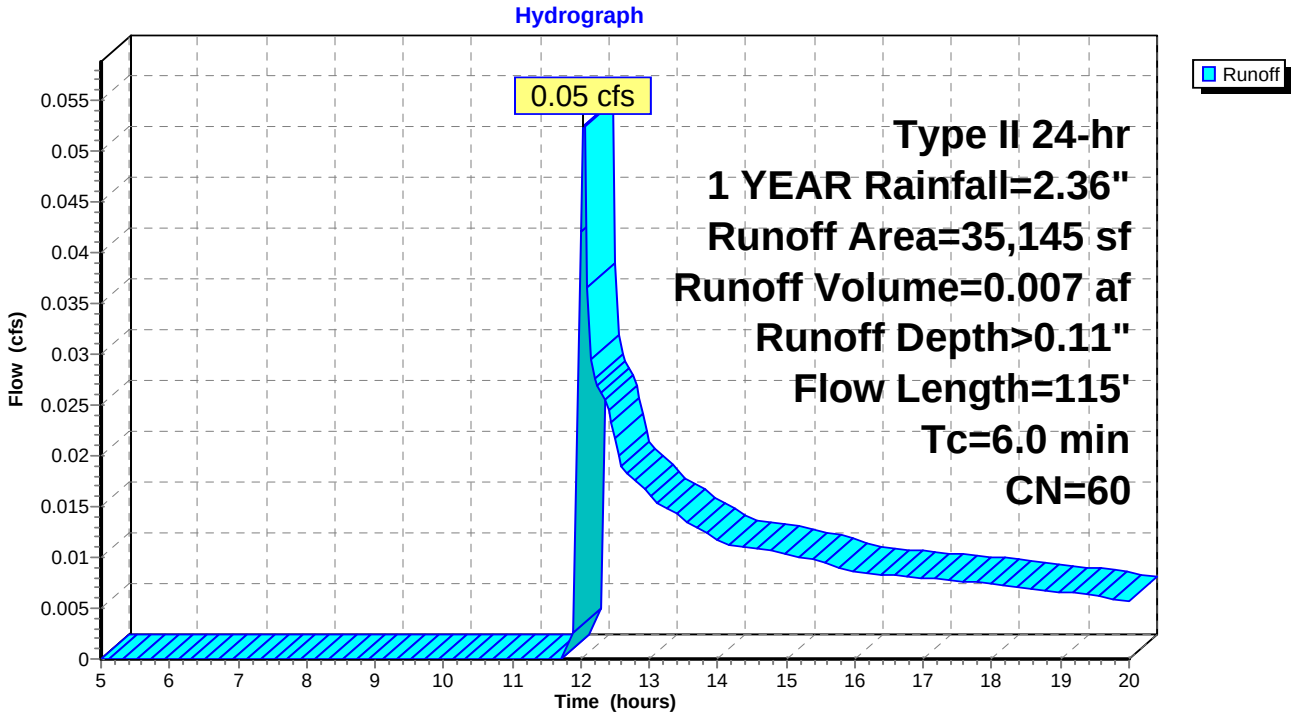
Runoff = 0.05 cfs @ 12.04 hrs, Volume= 0.007 af, Depth> 0.11"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 1 YEAR Rainfall=2.36"

Area (sf)	CN	Description
22,566	39	Pasture/grassland/range, Good, HSG A
8,344	98	Paved parking, HSG A
3,482	98	Roofs, HSG A
753	98	Paved parking, HSG A
35,145	60	Weighted Average
22,566		64.21% Pervious Area
12,579		35.79% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.0	51	0.0100	0.85		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.78"
1.6	49	0.0050	0.49		**Shallow Concentrated Flow, FIELD** Short Grass Pasture Kv= 7.0 fps
0.3	15	0.0130	0.80		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
2.9	115	Total, Increased to minimum Tc = 6.0 min			

Subcatchment 1P: POST 1



Summary for Subcatchment 2P: POST 2

[45] Hint: Runoff=Zero

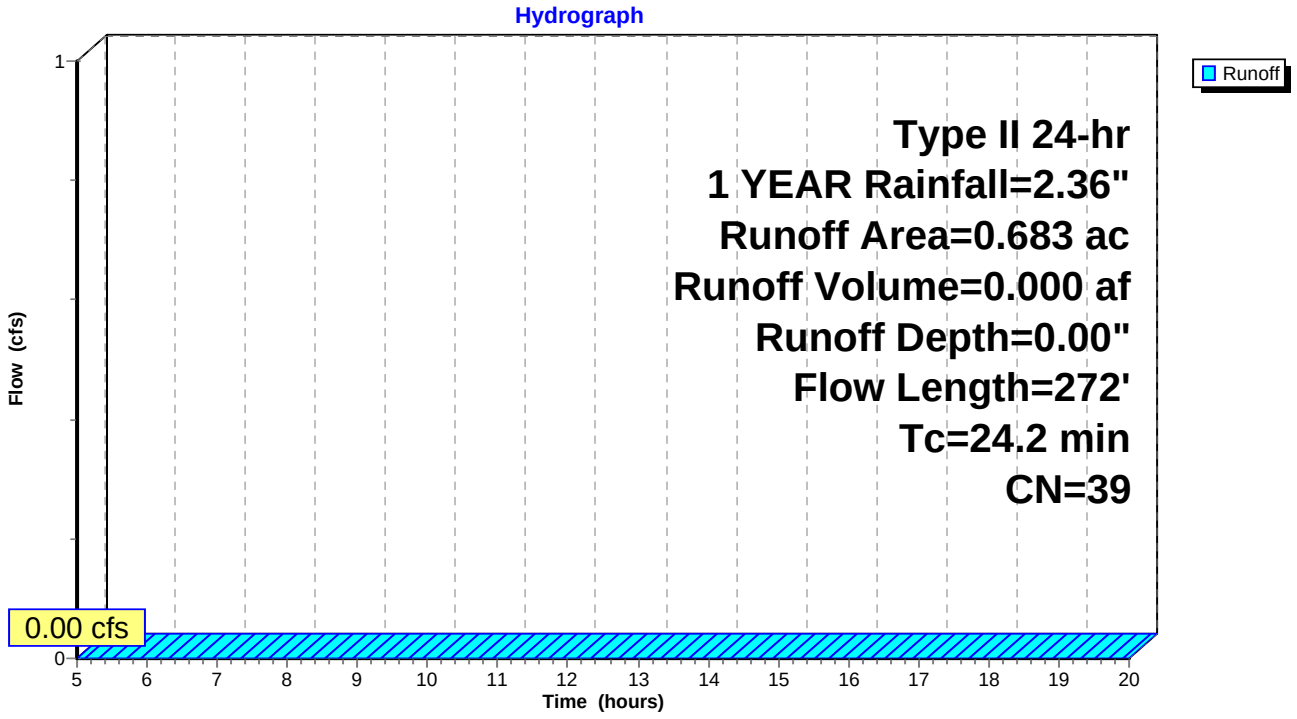
Runoff = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 1 YEAR Rainfall=2.36"

Area (ac)	CN	Description
0.683	39	Pasture/grassland/range, Good, HSG A
0.683		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
17.7	100	0.0140	0.09		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.78"
6.5	172	0.0040	0.44		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
24.2	272	Total			

Subcatchment 2P: POST 2



Summary for Subcatchment 3P: POST 3

[45] Hint: Runoff=Zero

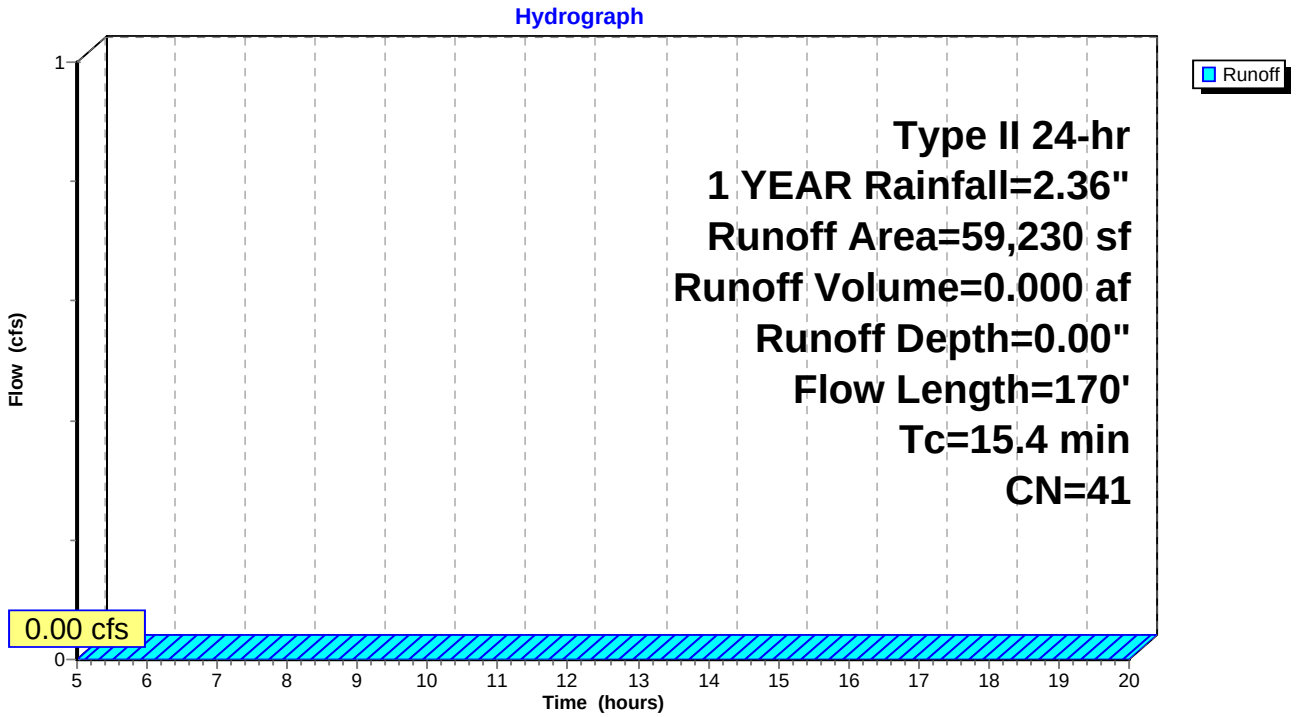
Runoff = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 1 YEAR Rainfall=2.36"

Area (sf)	CN	Description
57,249	39	Pasture/grassland/range, Good, HSG A
1,386	98	Paved parking, HSG A
595	98	Paved parking, HSG A
59,230	41	Weighted Average
57,249		96.66% Pervious Area
1,981		3.34% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
13.0	100	0.0300	0.13		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.78"
2.4	70	0.0050	0.49		**Shallow Concentrated Flow, FIELD** Short Grass Pasture Kv= 7.0 fps
15.4	170	Total			

Subcatchment 3P: POST 3



Summary for Pond D1: D-1

Inflow Area = 0.807 ac, 35.79% Impervious, Inflow Depth > 0.11" for 1 YEAR event
Inflow = 0.05 cfs @ 12.04 hrs, Volume= 0.007 af
Outflow = 0.05 cfs @ 12.05 hrs, Volume= 0.007 af, Atten= 1%, Lag= 0.1 min
Discarded = 0.05 cfs @ 12.05 hrs, Volume= 0.007 af
Primary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs / 6
Peak Elev= 95.27' @ 12.05 hrs Surf.Area= 0.001 ac Storage= 0.000 af
Flood Elev= 99.10' Surf.Area= 0.000 ac Storage= 0.003 af

Plug-Flow detention time= 0.1 min calculated for 0.007 af (100% of inflow)
Center-of-Mass det. time= 0.0 min (896.9 - 896.9)

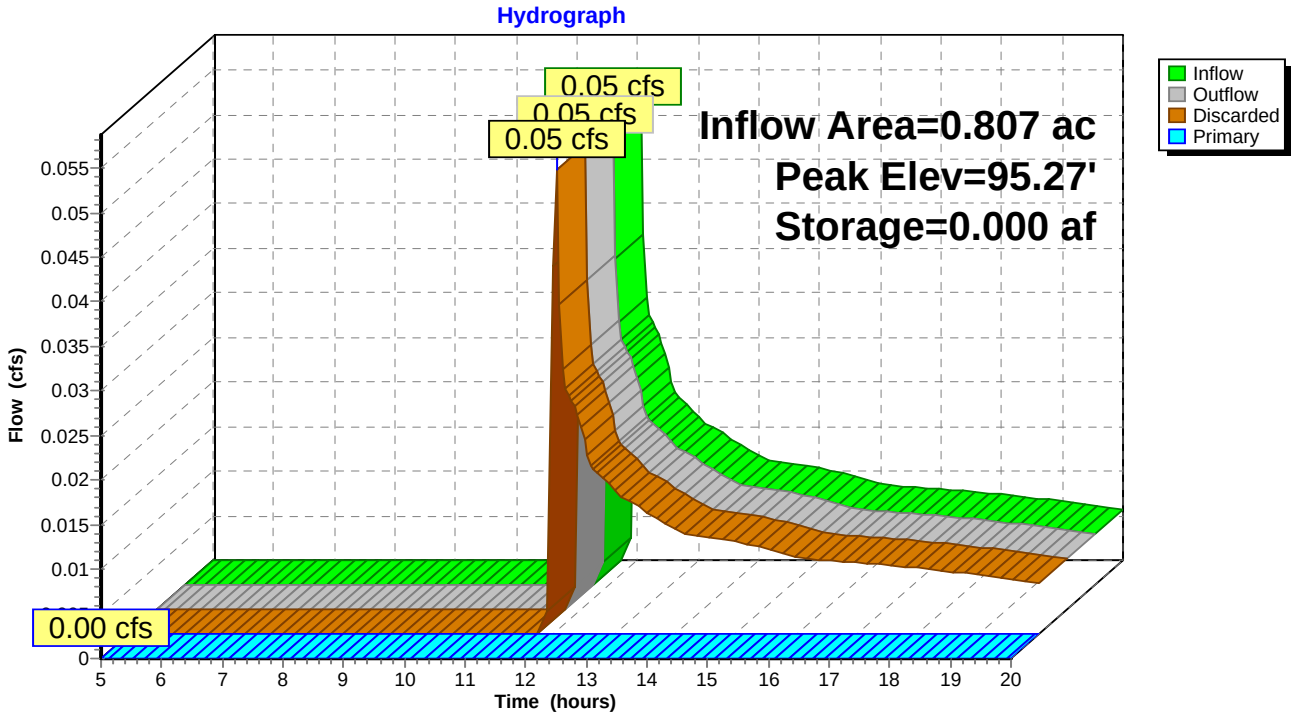
Volume	Invert	Avail.Storage	Storage Description
#1	95.27'	0.003 af	**Dry_Well 1000 Gallon** Inside= 62.0"W x 30.0"H => 12.86 sf x 10.00'L = 128.6 cf Outside= 68.0"W x 34.0"H => 15.81 sf x 10.50'L = 166.0 cf

Device	Routing	Invert	Outlet Devices
#1	Primary	96.85'	**8.0" Round Culvert** L= 104.1' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 96.85' / 95.55' S= 0.0125 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#2	Discarded	95.27'	**0.50 cfs Exfiltration at all elevations**

Discarded OutFlow Max=0.50 cfs @ 12.05 hrs HW=95.27' (Free Discharge)
└**2=Exfiltration** (Exfiltration Controls 0.50 cfs)

Primary OutFlow Max=0.00 cfs @ 5.00 hrs HW=95.27' (Free Discharge)
└**1=Culvert** (Controls 0.00 cfs)

Pond D1: D-1


Hydrograph
Inflow
Outflow
Discarded
Primary
0.05 cfs
0.05 cfs
0.05 cfs
Inflow Area=0.807 ac
Peak Elev=95.27'
Storage=0.000 af
0.00 cfs
Flow (cfs)
0
0.01
0.015
0.02
0.025
0.03
0.035
0.04
0.045
0.05
0.055
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
Time (hours)

Summary for Pond D2: D-2

Inflow Area = 0.807 ac, 35.79% Impervious, Inflow Depth = 0.00" for 1 YEAR event
Inflow = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af
Outflow = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af, Atten= 0%, Lag= 0.0 min
Discarded = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs / 6
Peak Elev= 93.97' @ 5.00 hrs Surf.Area= 0.001 ac Storage= 0.000 af
Flood Elev= 97.80' Surf.Area= 0.000 ac Storage= 0.003 af

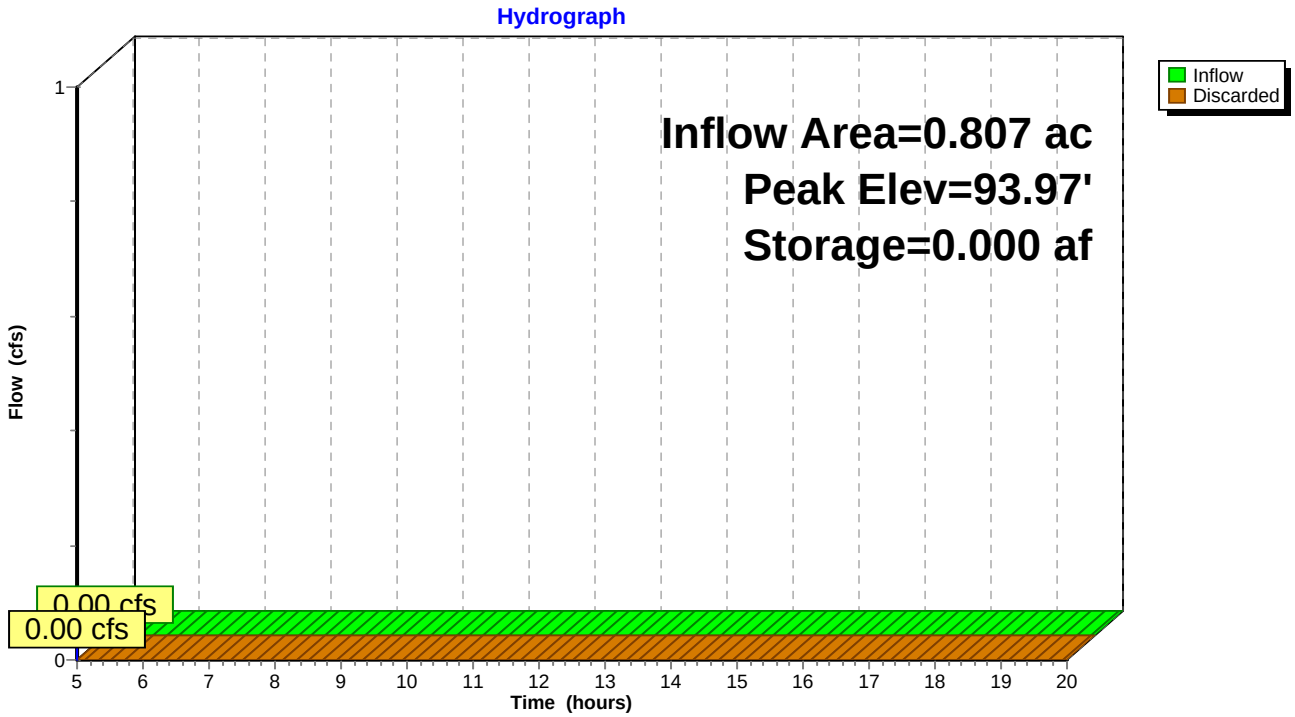
Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
Center-of-Mass det. time= (not calculated: no inflow)

Volume	Invert	Avail.Storage	Storage Description
#1	93.97'	0.003 af	**Dry_Well 1000 Gallon** Inside= 62.0"W x 30.0"H => 12.86 sf x 10.00'L = 128.6 cf Outside= 68.0"W x 34.0"H => 15.81 sf x 10.50'L = 166.0 cf

Device	Routing	Invert	Outlet Devices
#1	Discarded	93.97'	**0.50 cfs Exfiltration at all elevations**

Discarded OutFlow Max=0.00 cfs @ 5.00 hrs HW=93.97' (Free Discharge)
1=Exfiltration (Passes 0.00 cfs of 0.50 cfs potential flow)

Pond D2: D-2

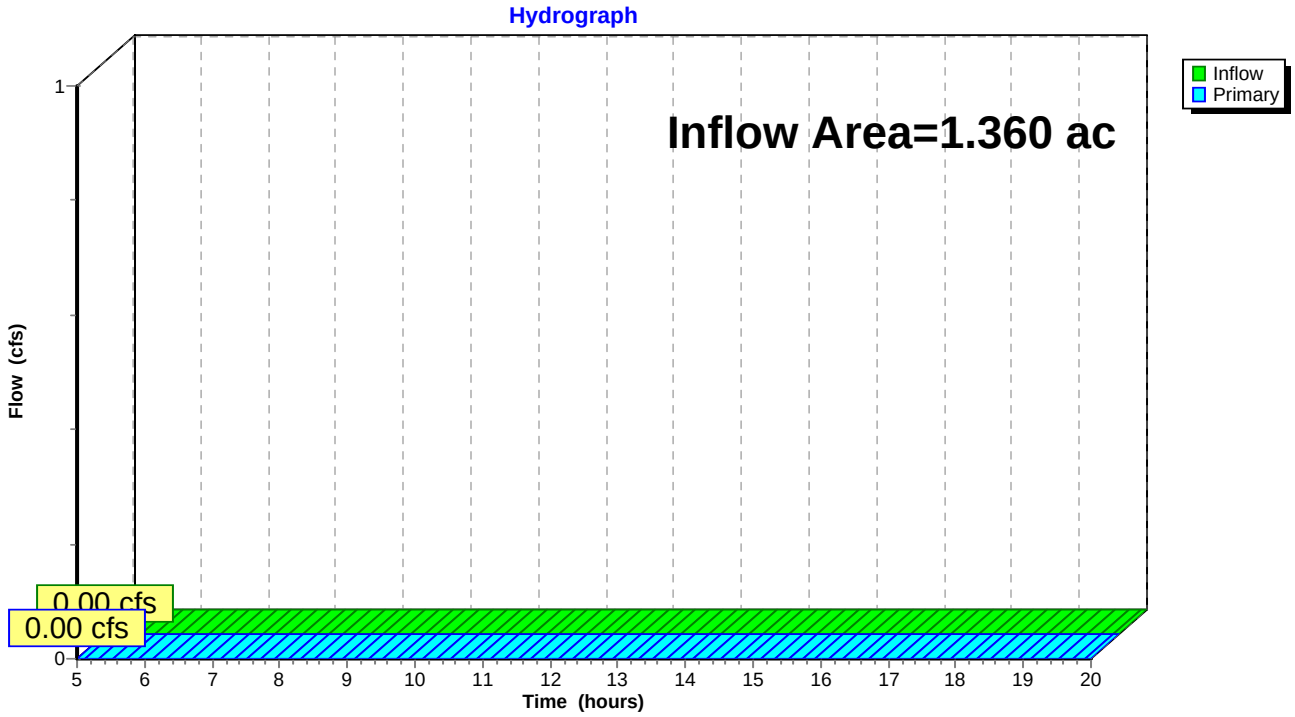


Summary for Link DP-1: ROAD SWALE

Inflow Area = 1.360 ac, 3.34% Impervious, Inflow Depth = 0.00" for 1 YEAR event
Inflow = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af
Primary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Link DP-1: ROAD SWALE

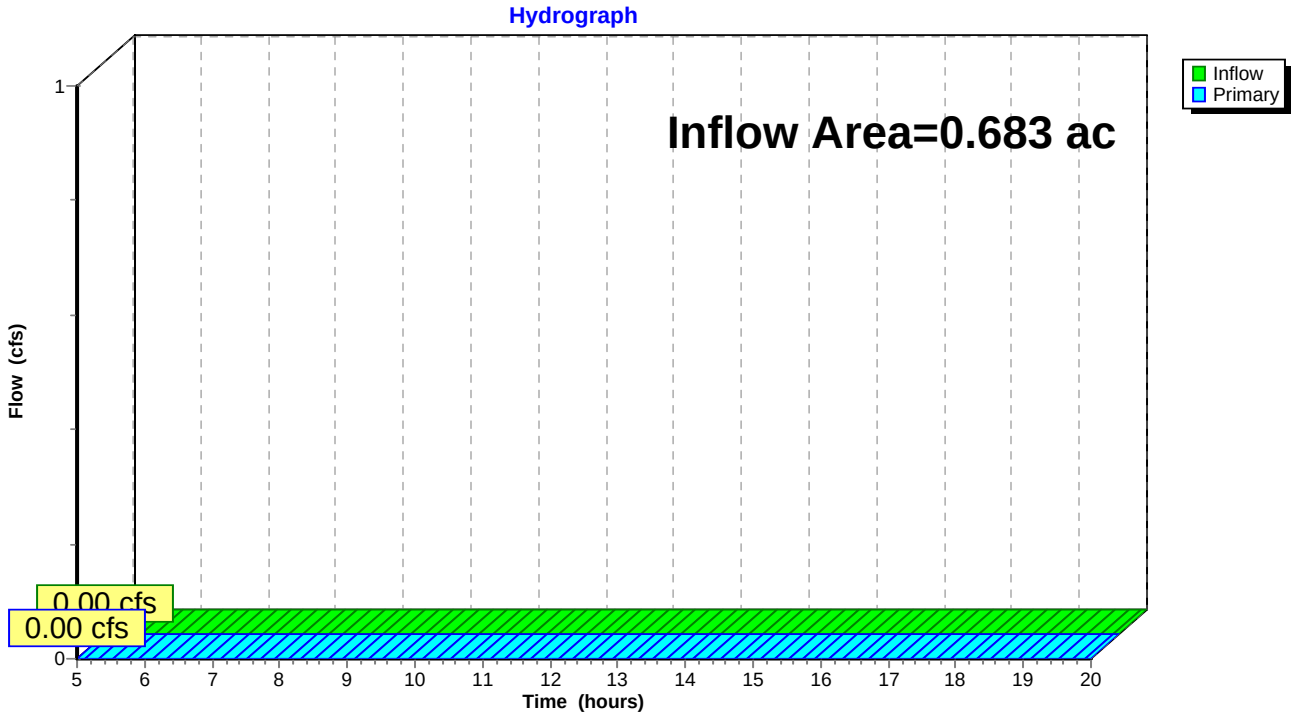


Summary for Link DP-2: BACK HILL

Inflow Area = 0.683 ac, 0.00% Impervious, Inflow Depth = 0.00" for 1 YEAR event
Inflow = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af
Primary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Link DP-2: BACK HILL



Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 1P: POST 1 Runoff Area=35,145 sf 35.79% Impervious Runoff Depth>0.70"
Flow Length=115' Tc=6.0 min CN=60 Runoff=1.03 cfs 0.047 af

Subcatchment 2P: POST 2 Runoff Area=0.683 ac 0.00% Impervious Runoff Depth>0.03"
Flow Length=272' Tc=24.2 min CN=39 Runoff=0.00 cfs 0.002 af

Subcatchment 3P: POST 3 Runoff Area=59,230 sf 3.34% Impervious Runoff Depth>0.06"
Flow Length=170' Tc=15.4 min CN=41 Runoff=0.01 cfs 0.007 af

Pond D1: D-1 Peak Elev=97.40' Storage=0.003 af Inflow=1.03 cfs 0.047 af
Discarded=0.50 cfs 0.045 af Primary=0.43 cfs 0.003 af Outflow=0.93 cfs 0.048 af

Pond D2: D-2 Peak Elev=94.00' Storage=0.000 af Inflow=0.43 cfs 0.003 af
Outflow=0.42 cfs 0.003 af

Link DP-1: ROAD SWALE Inflow=0.01 cfs 0.007 af
Primary=0.01 cfs 0.007 af

Link DP-2: BACK HILL Inflow=0.00 cfs 0.002 af
Primary=0.00 cfs 0.002 af

Total Runoff Area = 2.850 ac Runoff Volume = 0.057 af Average Runoff Depth = 0.24"
88.27% Pervious = 2.515 ac 11.73% Impervious = 0.334 ac

Summary for Subcatchment 1P: POST 1

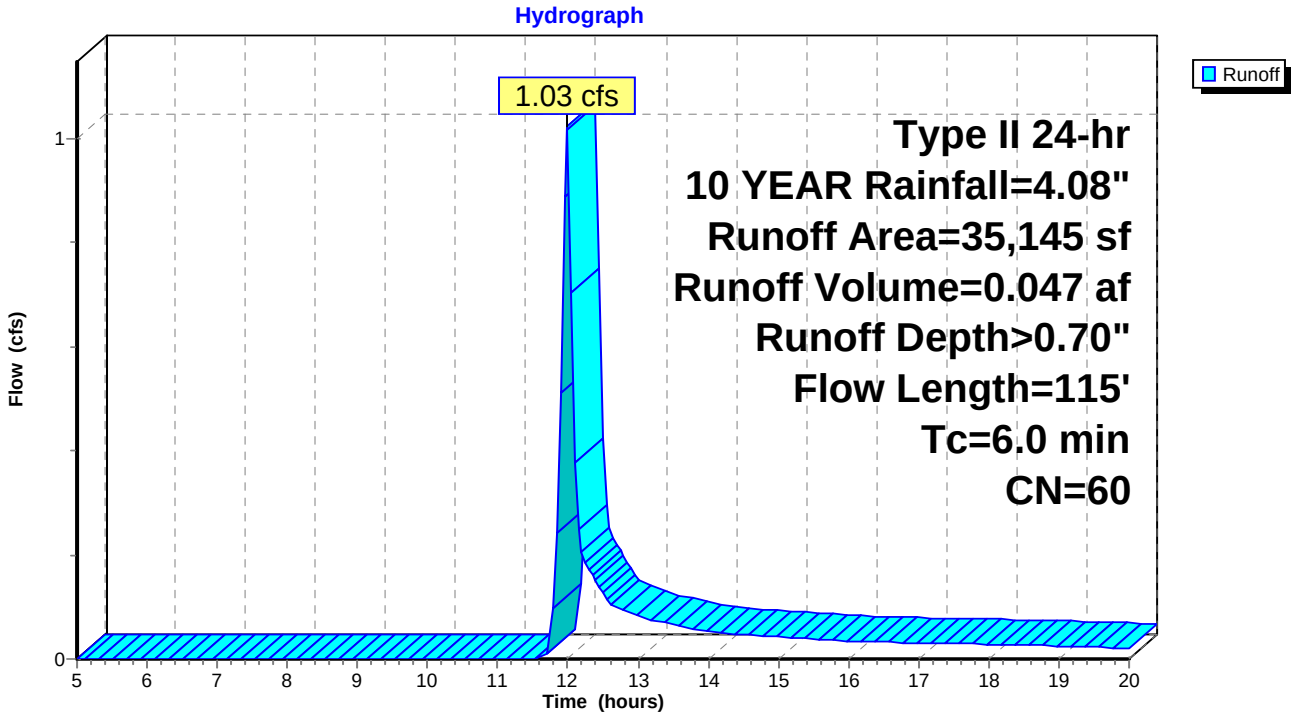
Runoff = 1.03 cfs @ 11.99 hrs, Volume= 0.047 af, Depth> 0.70"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 10 YEAR Rainfall=4.08"

Area (sf)	CN	Description
22,566	39	Pasture/grassland/range, Good, HSG A
8,344	98	Paved parking, HSG A
3,482	98	Roofs, HSG A
753	98	Paved parking, HSG A
35,145	60	Weighted Average
22,566		64.21% Pervious Area
12,579		35.79% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.0	51	0.0100	0.85		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.78"
1.6	49	0.0050	0.49		**Shallow Concentrated Flow, FIELD** Short Grass Pasture Kv= 7.0 fps
0.3	15	0.0130	0.80		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
2.9	115	Total, Increased to minimum Tc = 6.0 min			

Subcatchment 1P: POST 1



Summary for Subcatchment 2P: POST 2

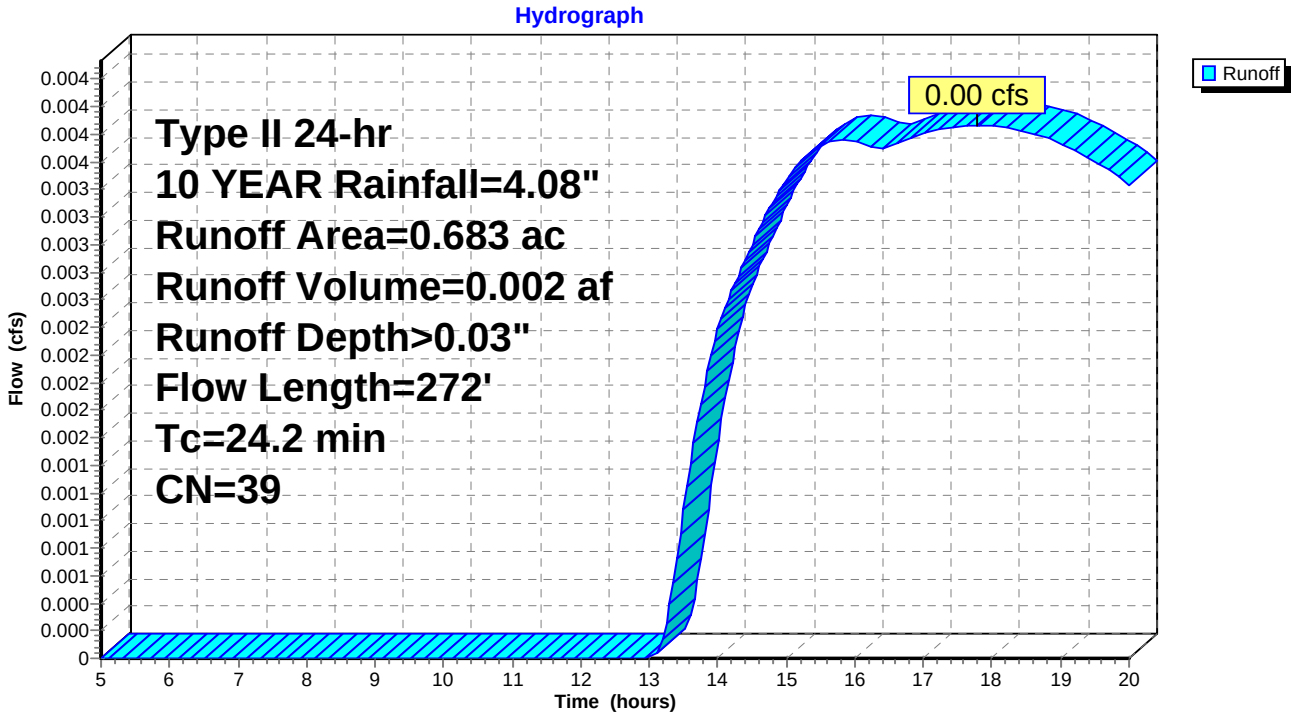
Runoff = 0.00 cfs @ 17.79 hrs, Volume= 0.002 af, Depth> 0.03"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 10 YEAR Rainfall=4.08"

Area (ac)	CN	Description
0.683	39	Pasture/grassland/range, Good, HSG A
0.683		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
17.7	100	0.0140	0.09		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.78"
6.5	172	0.0040	0.44		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
24.2	272	Total			

Subcatchment 2P: POST 2



Summary for Subcatchment 3P: POST 3

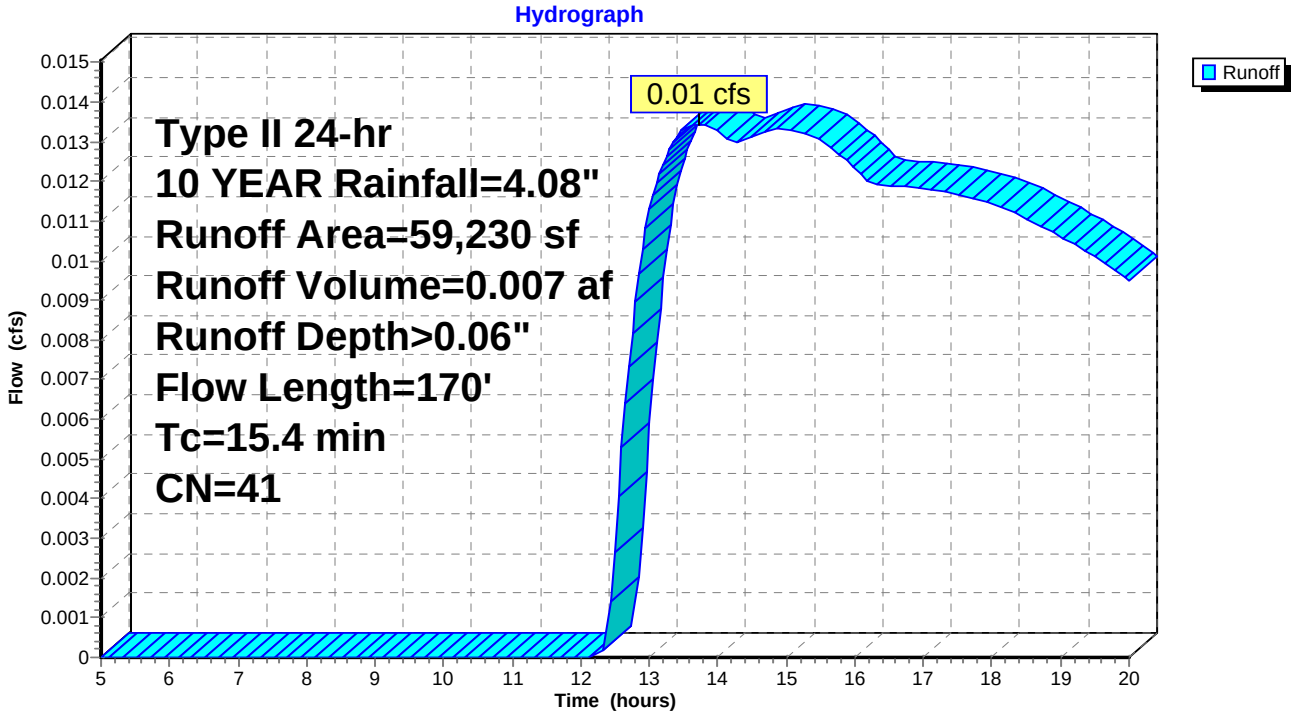
Runoff = 0.01 cfs @ 13.74 hrs, Volume= 0.007 af, Depth> 0.06"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 10 YEAR Rainfall=4.08"

Area (sf)	CN	Description
57,249	39	Pasture/grassland/range, Good, HSG A
1,386	98	Paved parking, HSG A
595	98	Paved parking, HSG A
59,230	41	Weighted Average
57,249		96.66% Pervious Area
1,981		3.34% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
13.0	100	0.0300	0.13		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.78"
2.4	70	0.0050	0.49		**Shallow Concentrated Flow, FIELD** Short Grass Pasture Kv= 7.0 fps
15.4	170	Total			

Subcatchment 3P: POST 3



Summary for Pond D1: D-1

Inflow Area = 0.807 ac, 35.79% Impervious, Inflow Depth > 0.70" for 10 YEAR event
Inflow = 1.03 cfs @ 11.99 hrs, Volume= 0.047 af
Outflow = 0.93 cfs @ 12.01 hrs, Volume= 0.048 af, Atten= 9%, Lag= 1.3 min
Discarded = 0.50 cfs @ 11.90 hrs, Volume= 0.045 af
Primary = 0.43 cfs @ 12.01 hrs, Volume= 0.003 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs / 6
Peak Elev= 97.40' @ 12.02 hrs Surf.Area= 0.001 ac Storage= 0.003 af
Flood Elev= 99.10' Surf.Area= 0.000 ac Storage= 0.003 af

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= (not calculated: outflow precedes inflow)

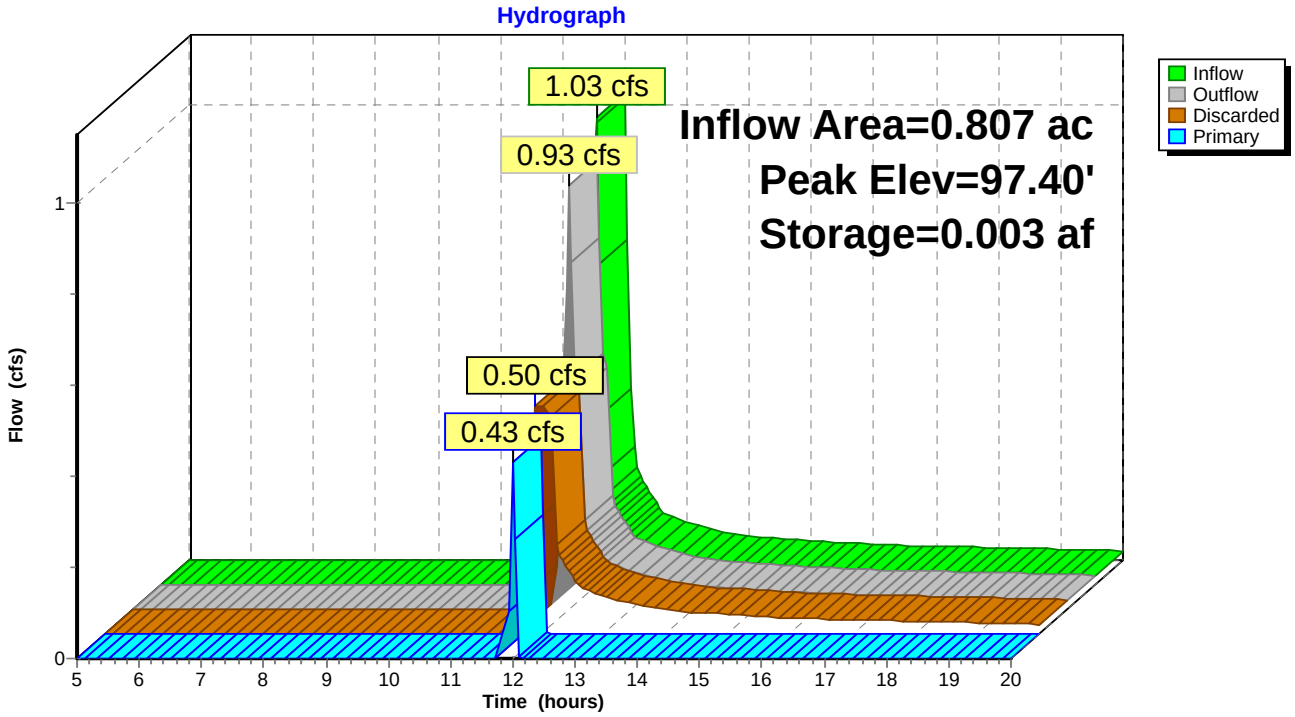
Volume	Invert	Avail.Storage	Storage Description
#1	95.27'	0.003 af	**Dry_Well 1000 Gallon** Inside= 62.0"W x 30.0"H => 12.86 sf x 10.00'L = 128.6 cf Outside= 68.0"W x 34.0"H => 15.81 sf x 10.50'L = 166.0 cf

Device	Routing	Invert	Outlet Devices
#1	Primary	96.85'	**8.0" Round Culvert** L= 104.1' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 96.85' / 95.55' S= 0.0125 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#2	Discarded	95.27'	**0.50 cfs Exfiltration at all elevations**

Discarded OutFlow Max=0.50 cfs @ 11.90 hrs HW=95.31' (Free Discharge)
↑—**2=Exfiltration** (Exfiltration Controls 0.50 cfs)

Primary OutFlow Max=0.38 cfs @ 12.01 hrs HW=97.25' (Free Discharge)
↑—**1=Culvert** (Inlet Controls 0.38 cfs @ 1.71 fps)

Pond D1: D-1


Hydrograph
1.03 cfs
0.93 cfs
0.50 cfs
0.43 cfs
Inflow Area=0.807 ac
Peak Elev=97.40'
Storage=0.003 af
Inflow
Outflow
Discarded
Primary
Flow (cfs)
0
1
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
Time (hours)

Summary for Pond D2: D-2

Inflow Area = 0.807 ac, 35.79% Impervious, Inflow Depth = 0.04" for 10 YEAR event
Inflow = 0.43 cfs @ 12.01 hrs, Volume= 0.003 af
Outflow = 0.42 cfs @ 12.01 hrs, Volume= 0.003 af, Atten= 2%, Lag= 0.0 min
Discarded = 0.42 cfs @ 12.01 hrs, Volume= 0.003 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs / 6
Peak Elev= 94.00' @ 12.01 hrs Surf.Area= 0.001 ac Storage= 0.000 af
Flood Elev= 97.80' Surf.Area= 0.000 ac Storage= 0.003 af

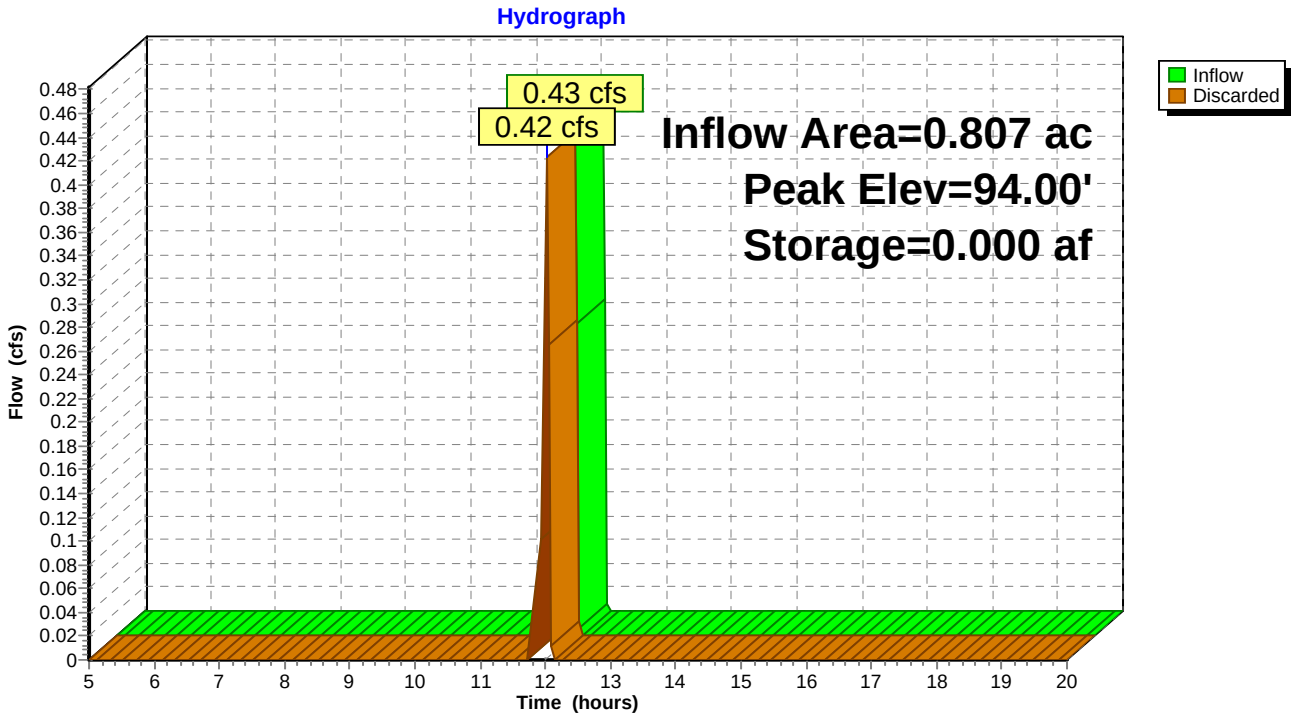
Plug-Flow detention time= 0.1 min calculated for 0.003 af (100% of inflow)
Center-of-Mass det. time= 0.1 min (721.3 - 721.2)

Volume	Invert	Avail.Storage	Storage Description
#1	93.97'	0.003 af	**Dry_Well 1000 Gallon** Inside= 62.0"W x 30.0"H => 12.86 sf x 10.00'L = 128.6 cf Outside= 68.0"W x 34.0"H => 15.81 sf x 10.50'L = 166.0 cf

Device	Routing	Invert	Outlet Devices
#1	Discarded	93.97'	**0.50 cfs Exfiltration at all elevations**

Discarded OutFlow Max=0.50 cfs @ 12.01 hrs HW=94.00' (Free Discharge)
└**1=Exfiltration** (Exfiltration Controls 0.50 cfs)

Pond D2: D-2

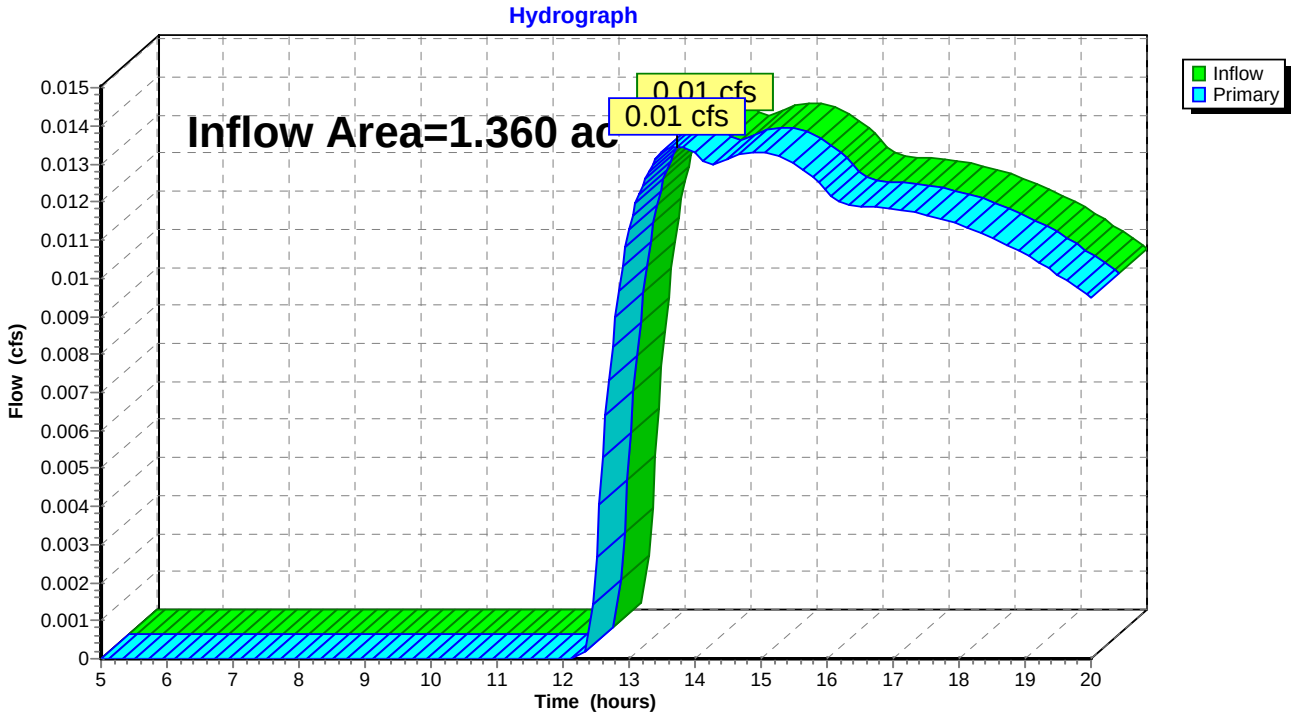


Summary for Link DP-1: ROAD SWALE

Inflow Area = 1.360 ac, 3.34% Impervious, Inflow Depth > 0.06" for 10 YEAR event
Inflow = 0.01 cfs @ 13.74 hrs, Volume= 0.007 af
Primary = 0.01 cfs @ 13.74 hrs, Volume= 0.007 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Link DP-1: ROAD SWALE

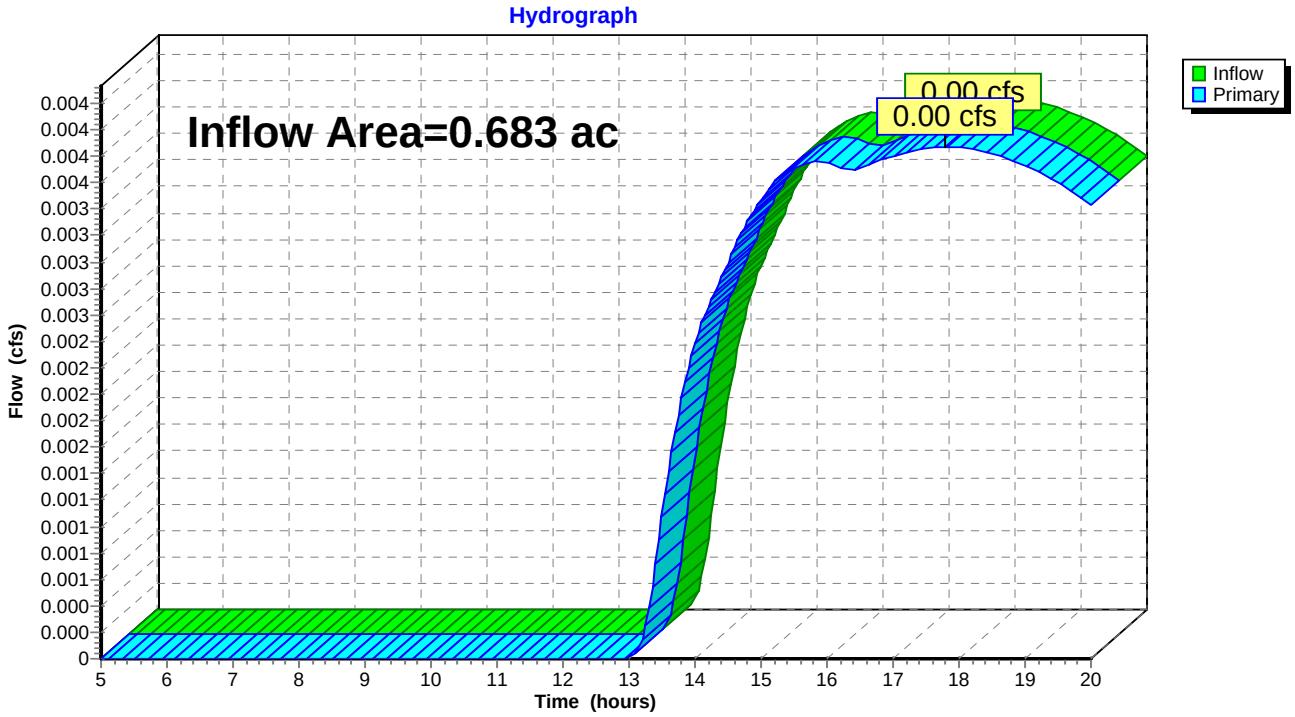


Summary for Link DP-2: BACK HILL

Inflow Area = 0.683 ac, 0.00% Impervious, Inflow Depth > 0.03" for 10 YEAR event
Inflow = 0.00 cfs @ 17.79 hrs, Volume= 0.002 af
Primary = 0.00 cfs @ 17.79 hrs, Volume= 0.002 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Link DP-2: BACK HILL



Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 1P: POST 1 Runoff Area=35,145 sf 35.79% Impervious Runoff Depth=0.00"
Flow Length=115' Tc=6.0 min CN=60 Runoff=0.00 cfs 0.000 af

Subcatchment 2P: POST 2 Runoff Area=0.683 ac 0.00% Impervious Runoff Depth=0.00"
Flow Length=272' Tc=24.2 min CN=39 Runoff=0.00 cfs 0.000 af

Subcatchment 3P: POST 3 Runoff Area=59,230 sf 3.34% Impervious Runoff Depth=0.00"
Flow Length=170' Tc=15.4 min CN=41 Runoff=0.00 cfs 0.000 af

Pond D1: D-1 Peak Elev=95.27' Storage=0.000 af Inflow=0.00 cfs 0.000 af
Discarded=0.00 cfs 0.000 af Primary=0.00 cfs 0.000 af Outflow=0.00 cfs 0.000 af

Pond D2: D-2 Peak Elev=93.97' Storage=0.000 af Inflow=0.00 cfs 0.000 af
Outflow=0.00 cfs 0.000 af

Link DP-1: ROAD SWALE Inflow=0.00 cfs 0.000 af
Primary=0.00 cfs 0.000 af

Link DP-2: BACK HILL Inflow=0.00 cfs 0.000 af
Primary=0.00 cfs 0.000 af

Total Runoff Area = 2.850 ac Runoff Volume = 0.000 af Average Runoff Depth = 0.00"
88.27% Pervious = 2.515 ac 11.73% Impervious = 0.334 ac

Summary for Subcatchment 1P: POST 1

[45] Hint: Runoff=Zero

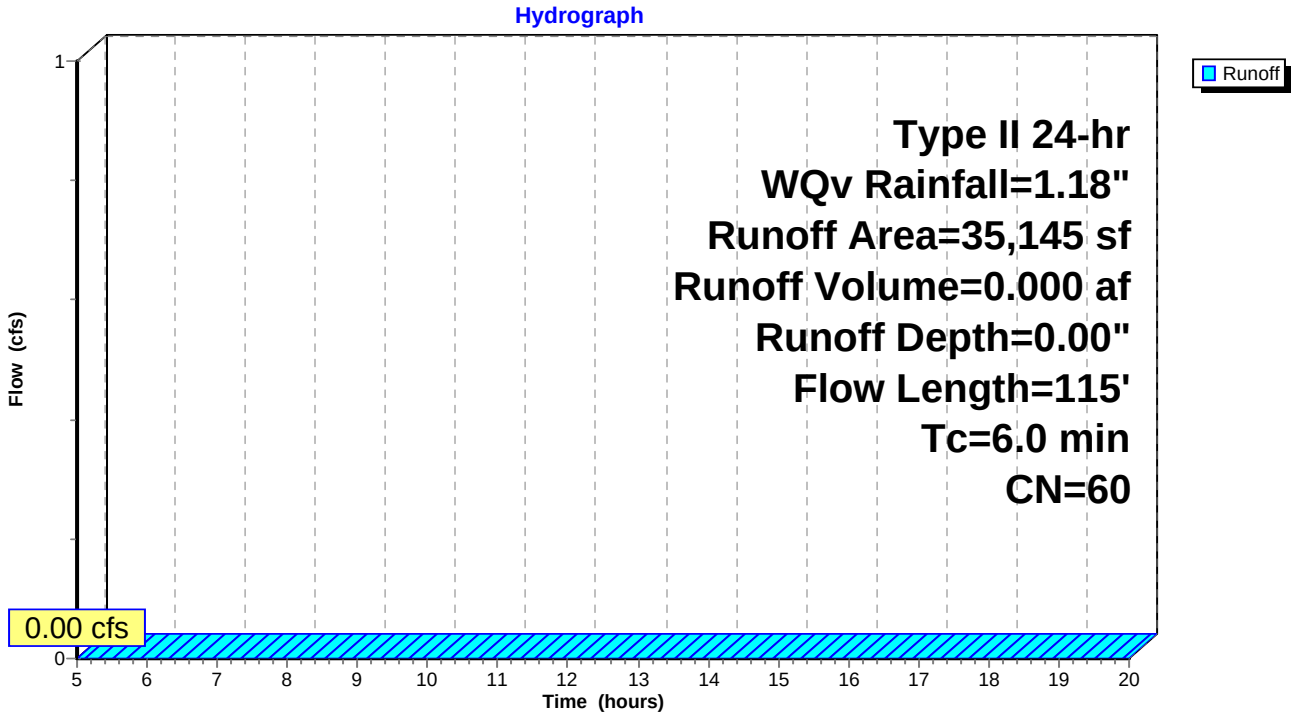
Runoff = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr WQv Rainfall=1.18"

Area (sf)	CN	Description
22,566	39	Pasture/grassland/range, Good, HSG A
8,344	98	Paved parking, HSG A
3,482	98	Roofs, HSG A
753	98	Paved parking, HSG A
35,145	60	Weighted Average
22,566		64.21% Pervious Area
12,579		35.79% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.0	51	0.0100	0.85		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.78"
1.6	49	0.0050	0.49		**Shallow Concentrated Flow, FIELD** Short Grass Pasture Kv= 7.0 fps
0.3	15	0.0130	0.80		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
2.9	115	Total, Increased to minimum Tc = 6.0 min			

Subcatchment 1P: POST 1



Summary for Subcatchment 2P: POST 2

[45] Hint: Runoff=Zero

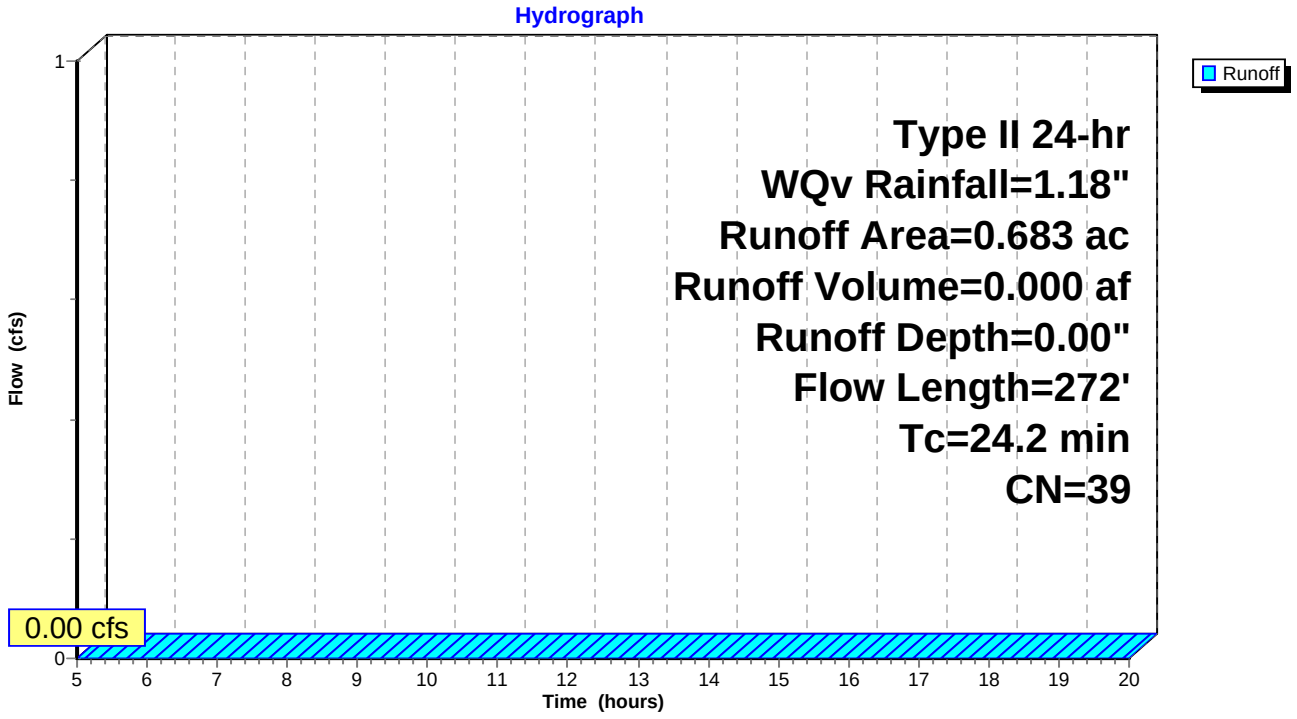
Runoff = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr WQv Rainfall=1.18"

Area (ac)	CN	Description
0.683	39	Pasture/grassland/range, Good, HSG A
0.683		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
17.7	100	0.0140	0.09		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.78"
6.5	172	0.0040	0.44		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
24.2	272	Total			

Subcatchment 2P: POST 2



Summary for Subcatchment 3P: POST 3

[45] Hint: Runoff=Zero

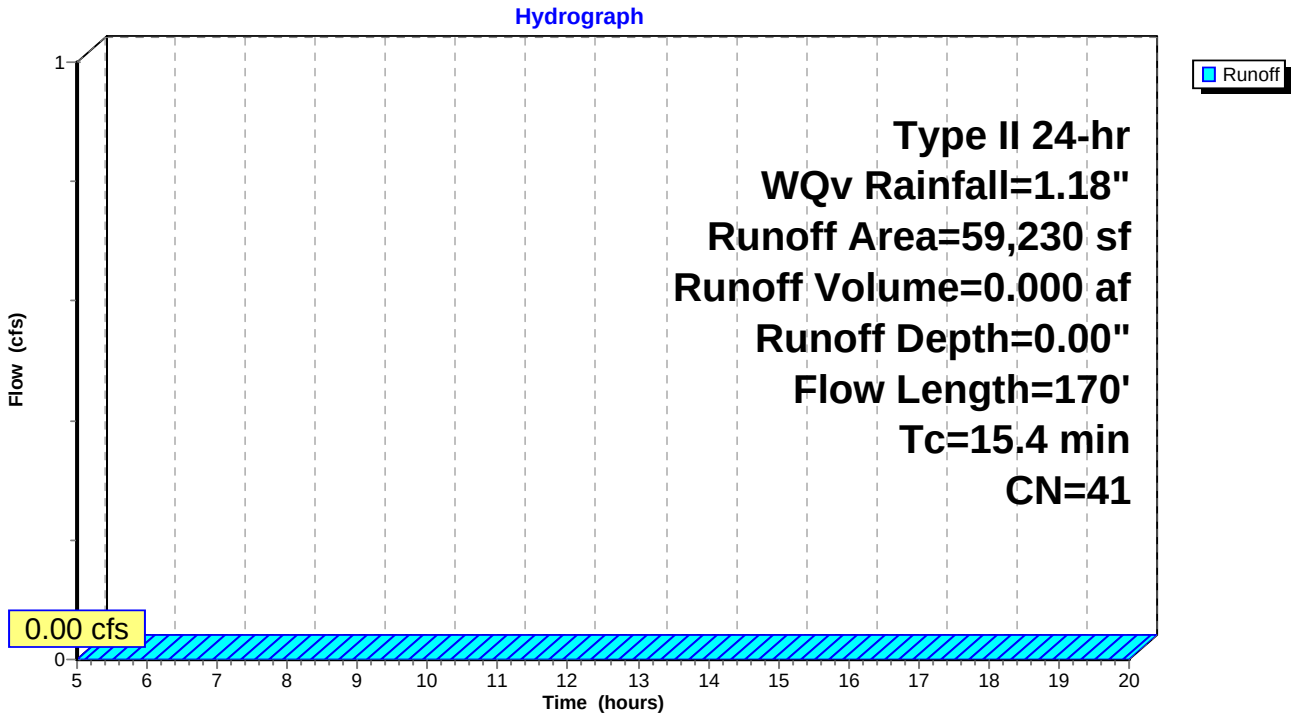
Runoff = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr WQv Rainfall=1.18"

Area (sf)	CN	Description
57,249	39	Pasture/grassland/range, Good, HSG A
1,386	98	Paved parking, HSG A
595	98	Paved parking, HSG A
59,230	41	Weighted Average
57,249		96.66% Pervious Area
1,981		3.34% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
13.0	100	0.0300	0.13		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.78"
2.4	70	0.0050	0.49		**Shallow Concentrated Flow, FIELD** Short Grass Pasture Kv= 7.0 fps
15.4	170	Total			

Subcatchment 3P: POST 3



Summary for Pond D1: D-1

Inflow Area = 0.807 ac, 35.79% Impervious, Inflow Depth = 0.00" for WQv event
Inflow = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af
Outflow = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af, Atten= 0%, Lag= 0.0 min
Discarded = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af
Primary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs / 6
Peak Elev= 95.27' @ 5.00 hrs Surf.Area= 0.001 ac Storage= 0.000 af
Flood Elev= 99.10' Surf.Area= 0.000 ac Storage= 0.003 af

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
Center-of-Mass det. time= (not calculated: no inflow)

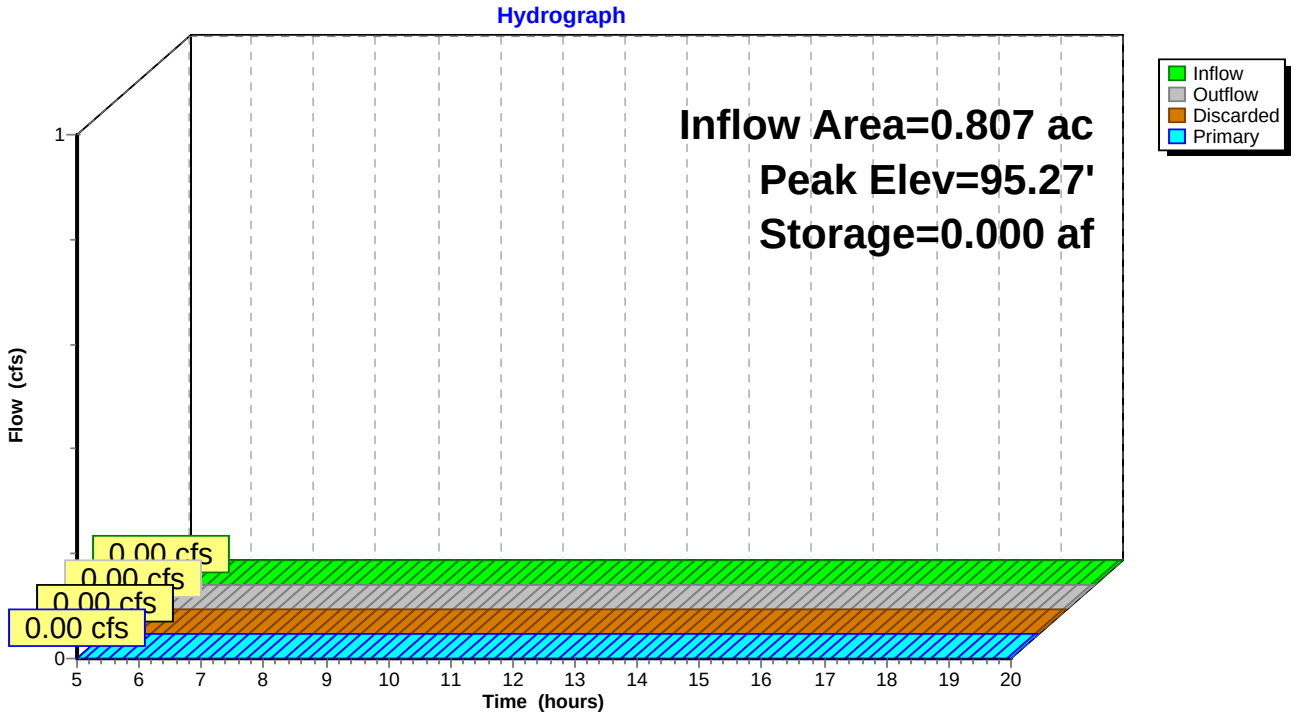
Volume	Invert	Avail.Storage	Storage Description
#1	95.27'	0.003 af	**Dry_Well 1000 Gallon** Inside= 62.0"W x 30.0"H => 12.86 sf x 10.00'L = 128.6 cf Outside= 68.0"W x 34.0"H => 15.81 sf x 10.50'L = 166.0 cf

Device	Routing	Invert	Outlet Devices
#1	Primary	96.85'	**8.0" Round Culvert** L= 104.1' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 96.85' / 95.55' S= 0.0125 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#2	Discarded	95.27'	**0.50 cfs Exfiltration at all elevations**

Discarded OutFlow Max=0.00 cfs @ 5.00 hrs HW=95.27' (Free Discharge)
↑—**2=Exfiltration** (Passes 0.00 cfs of 0.50 cfs potential flow)

Primary OutFlow Max=0.00 cfs @ 5.00 hrs HW=95.27' (Free Discharge)
↑—**1=Culvert** (Controls 0.00 cfs)

Pond D1: D-1


Hydrograph
Inflow Area=0.807 ac
Peak Elev=95.27'
Storage=0.000 af
Inflow
Outflow
Discarded
Primary
0.00 cfs
0.00 cfs
0.00 cfs
0.00 cfs
Flow (cfs)
Time (hours)
0
1
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20

Summary for Pond D2: D-2

Inflow Area = 0.807 ac, 35.79% Impervious, Inflow Depth = 0.00" for WQv event
Inflow = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af
Outflow = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af, Atten= 0%, Lag= 0.0 min
Discarded = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs / 6
Peak Elev= 93.97' @ 5.00 hrs Surf.Area= 0.001 ac Storage= 0.000 af
Flood Elev= 97.80' Surf.Area= 0.000 ac Storage= 0.003 af

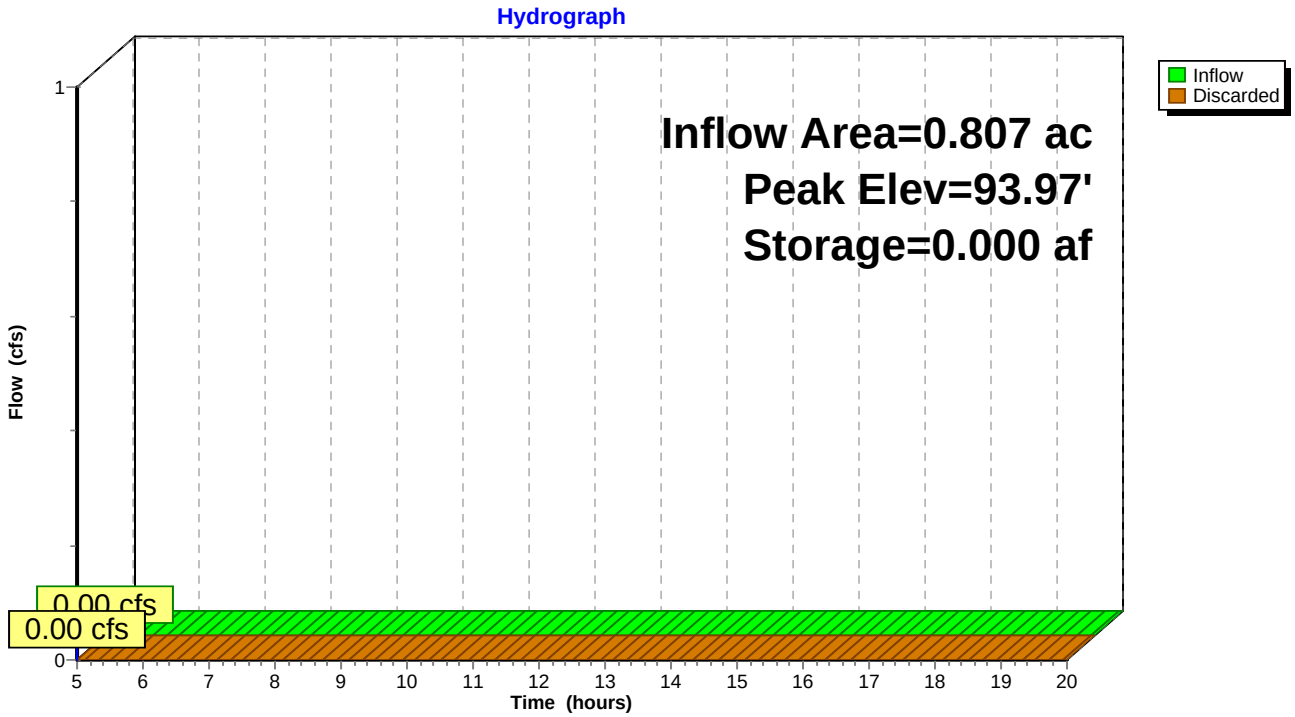
Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
Center-of-Mass det. time= (not calculated: no inflow)

Volume	Invert	Avail.Storage	Storage Description
#1	93.97'	0.003 af	**Dry_Well 1000 Gallon** Inside= 62.0"W x 30.0"H => 12.86 sf x 10.00'L = 128.6 cf Outside= 68.0"W x 34.0"H => 15.81 sf x 10.50'L = 166.0 cf

Device	Routing	Invert	Outlet Devices
#1	Discarded	93.97'	**0.50 cfs Exfiltration at all elevations**

Discarded OutFlow Max=0.00 cfs @ 5.00 hrs HW=93.97' (Free Discharge)
1=Exfiltration (Passes 0.00 cfs of 0.50 cfs potential flow)

Pond D2: D-2

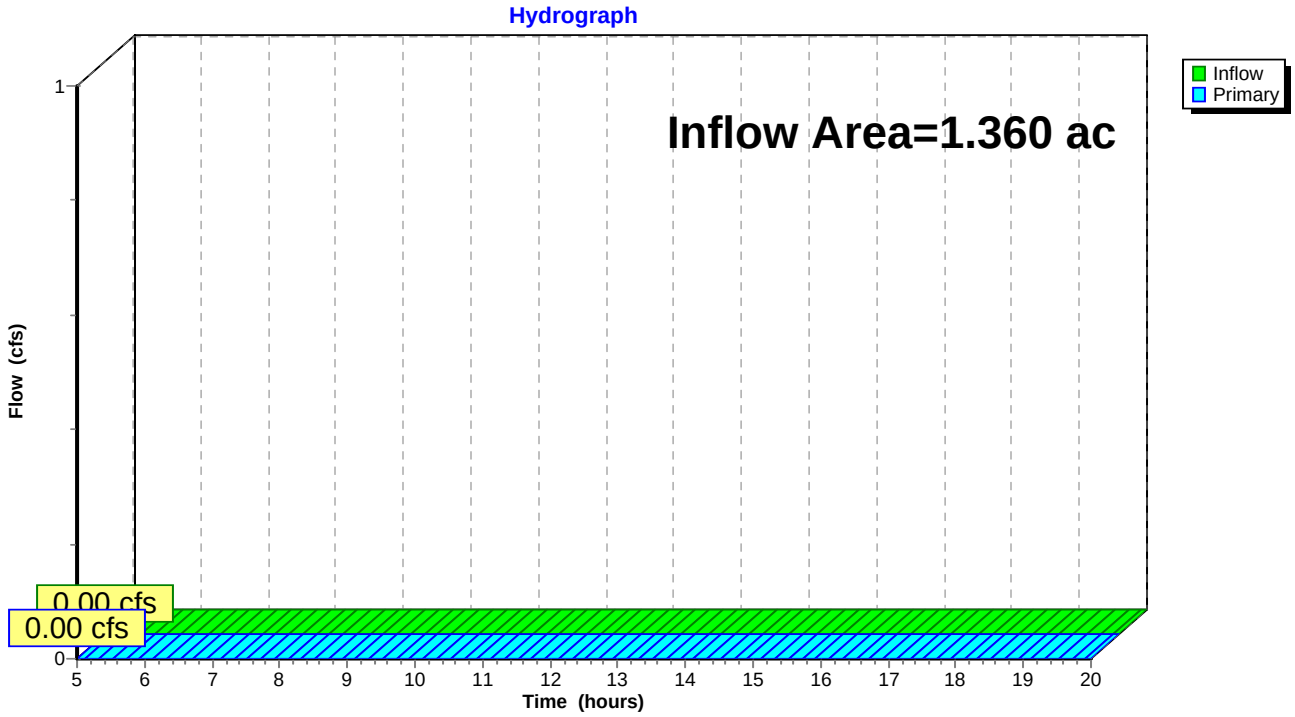


Summary for Link DP-1: ROAD SWALE

Inflow Area = 1.360 ac, 3.34% Impervious, Inflow Depth = 0.00" for WQv event
Inflow = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af
Primary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Link DP-1: ROAD SWALE

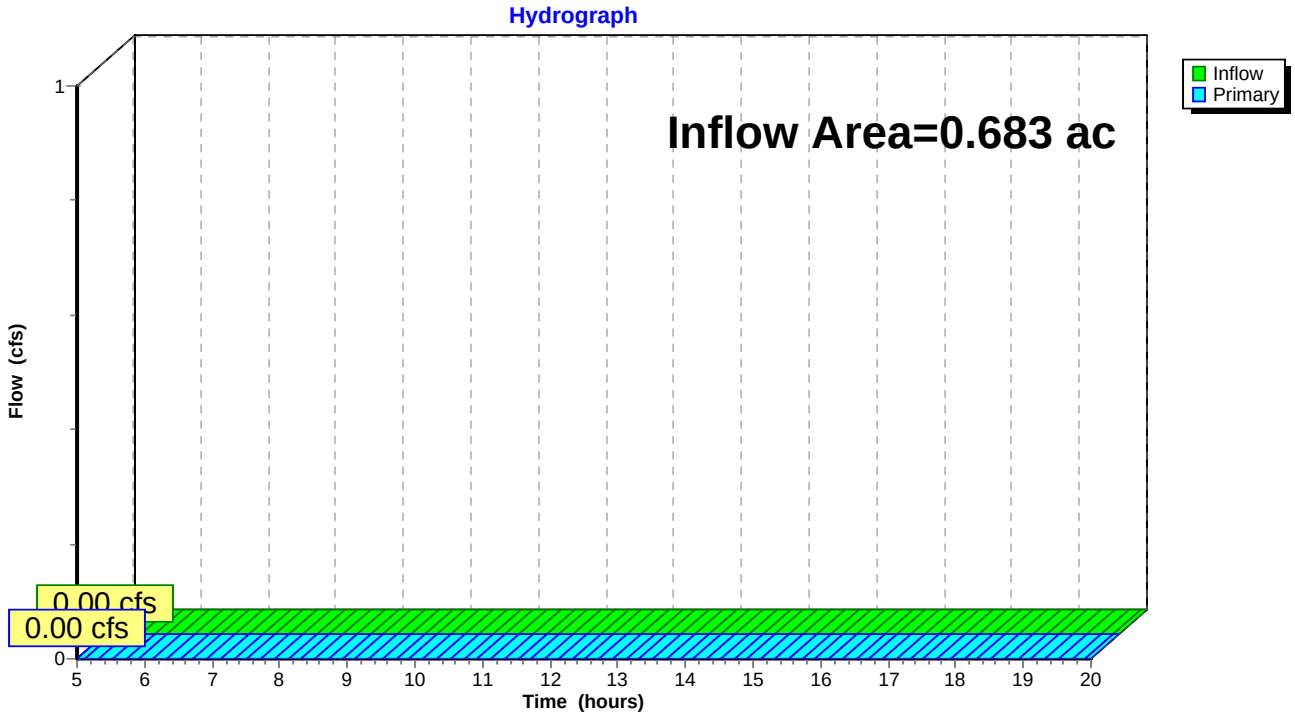


Summary for Link DP-2: BACK HILL

Inflow Area = 0.683 ac, 0.00% Impervious, Inflow Depth = 0.00" for WQv event
Inflow = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af
Primary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Link DP-2: BACK HILL

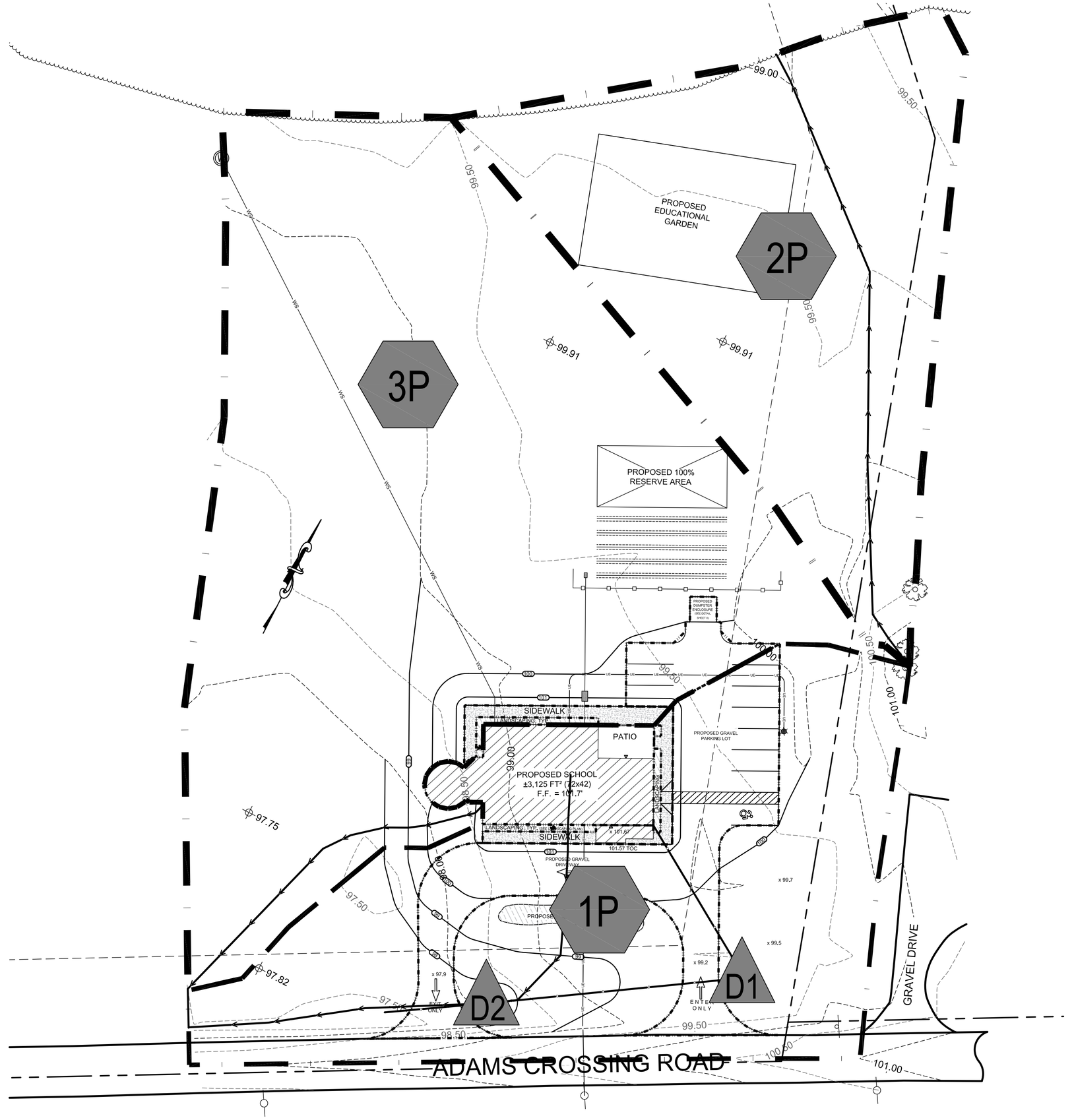


APPENDIX B

SUBCATCHMENT DRAINAGE MAPS

DRAINAGE PRE

SCALE: 1"=20'



DRAINAGE POST

SCALE: 1"=20'

RELEASED FOR PLANNING BOARD REVIEW & COMMENT ONLY

Not For Construction

Referenced Drawings: None
Drawing Name: Y:_sdsk\Proj\218054 mountain rd school\218054 11-6.dwg

Date last accessed: 11/8/2018 1:53 PM

Date last plotted: 11/9/2018 1:56 PM

Plotted By: Bryce Recer

REVISIONS

NO.	DATE	BY	CHKED	DESCRIPTION

64 GREEN STREET #1
HUDSON, NEW YORK 12534
TEL (518) 828-2300
FAX (518) 828-3963
CPLteam.com
ARCHITECTURE ■ ENGINEERING ■ PLANNING

NOKOMIS, LLC

TOWN OF NEW LEBANON COLUMBIA COUNTY, NY

DATE: OCT 2018
DRAWN: BGR
DESIGNED: RJJ
CHECKED: RJJ
SCALE: AS NOTED

NOKOMIS EDUCATIONAL CENTER

PRE & POST DRAINAGE PLANS

PROJECT NUMBER 60041.0

DRAWING NUMBER C-204

IT IS A VIOLATION OF THE NEW YORK STATE EDUCATION LAW AND THE COMMISSIONER'S REGULATIONS FOR ANY PERSON, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED ARCHITECT, ENGINEER OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE SEAL OF AN ARCHITECT, ENGINEER OR SURVEYOR IS ALTERED, THE ALTERING PART SHALL AFFIX TO THE ITEM HIS/HER SEAL AND THE NOTATION "ALTERED BY" FOLLOWED BY HIS/HER SIGNATURE AND THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

APPENDIX C

NRCS SOIL MAP & REPORT

Map Scale: 1:1,070 if printed on A portrait (8.5" x 11") sheet.

N

Meters: 0 15 30 60 90

Feet: 0 50 100 200 300

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 18N WGS84

MAP LEGEND

Area of Interest (AOI)

- Area of Interest (AOI)

Soils

Soil Rating Polygons

- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Soil Rating Lines

- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Soil Rating Points

- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Water Features

- Streams and Canals

Transportation

- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background

- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:15,800.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Columbia County, New York
Survey Area Data: Version 14, Sep 2, 2018

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jul 2, 2015—Oct 5, 2016

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
HoA	Hoosic gravelly sandy loam, 0 to 3 percent slopes	A	3.1	100.0%
Totals for Area of Interest			**3.1**	**100.0%**

Description

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

Rating Options

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

CSX1 LED
LED Area Luminaire

Catalog Number

Notes

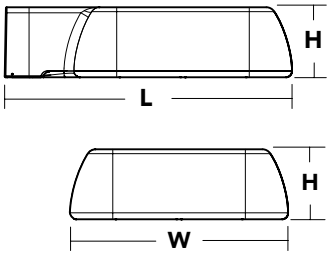
Type

Hit the Tab key or mouse over the page to see all interactive elements.

CONTOUR SERIES

Specifications

EPA:	0.7 ft² (0.07 m²)
Length:	23-1/2" (59.7 cm)
Width:	18-1/2" (46.9cm)
Height:	5-7/8" (14.9 cm)
Weight (max):	37 lbs (16.8 kg)



A+ Capable Luminaire

This item is an A+ capable luminaire, which has been designed and tested to provide consistent color appearance and system-level interoperability.

- All configurations of this luminaire meet the Acuity Brands' specification for chromatic consistency
- This luminaire is A+ Certified when ordered with DTL® controls marked by a shaded background. DTL DLL equipped luminaires meet the A+ specification for luminaire to photocontrol interoperability1
- This luminaire is part of an A+ Certified solution for ROAM®2 or XPoint™ Wireless control networks, providing out-of-the-box control compatibility with simple commissioning, when ordered with drivers and control options marked by a shaded background[1]

To learn more about A+, visit www.acuitybrands.com/aplus.

1. See ordering tree for details.
2. A+ Certified Solutions for ROAM require the order of one ROAM node per luminaire. Sold Separately: Link to Roam; Link to DTL DLL

A+ Capable options indicated by this color background.

Ordering Information

EXAMPLE: CSX1 LED 60C 1000 40K T3M MVOLT SPA DDBXD

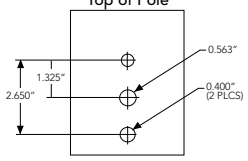
CSX1 LED	60C							
Series	**LEDs**	**Drive current**	**Color temperature**	**Distribution**	**Voltage**	**Mounting**	**Options**	**Finish** *(required)*
CSX1 LED	60C 60 LEDs	700 700 mA 1000 1000 mA (1 A)	40K 4000 K 50K 5000 K	T2M Type II T3M Type III T4M Type IV T5M Type V TFTM Forward throw	MVOLT [1] 120 [1] 208 [1,2] 240 [1,2] 277 [1] 347 480 [2]	**Shipped included** SPA Square pole mounting RPA Round pole mounting WBA Wall bracket **Shipped Separately** [3] SPUMBA Square pole universal mounting adaptor [3] RPUMBA Round pole universal mounting adaptor [4] KMA8 DDBXD U Mast arm mounting bracket adaptor (specify finish) [5]	**Shipped installed** PER NEMA twist-lock receptacle only (no controls) DCR Dimmable and controllable via ROAM® (no controls) [6] DMG 0-10V dimming driver (no controls) [7] HS House-side shield [3] SF Single fuse (120, 277, 347V) [8] DF Double fuse (208, 240, 480V) [8] DS Dual switching [9,10] BL30 Bi-level switched dimming, nominal 30% [10,11,12] BL50 Bi-level switched dimming, nominal 50% [10,11,12] **Shipped separately** [3] VG Vandal guard BS Bird-deterrant spikes	DDBXD Dark bronze DBLXD Black DNAXD Natural aluminum DWHXD White DDBTXD Textured dark bronze DBLBXD Textured black DNATXD Textured natural aluminum DWHGXD Textured white

© 2012-2018 Acuity Brands Lighting, Inc. All rights reserved.

Ordering Information

Drilling

Template #8



CSX1 shares a unique drilling pattern with the AERIS™ family. Specify this drilling pattern when specifying poles.

DM19AS	Single unit	**DM29AS**	2 at 90° *
DM28AS	2 at 180°	**DM39AS**	3 at 90° *
DM49AS	4 at 90° *	**DM32AS**	3 at 120° **

Example: SSA 20 4C **DM19AS** DDBXD

Visit Lithonia Lighting's POLES CENTRAL to see our wide selection of poles, accessories and educational tools.

**Round pole top must be 3.25" O.D. minimum.*
***For round pole mounting (RPA) only.*

Accessories

Ordered and shipped separately.

DLL127F 1.5 JU	Photocell - SSL twist-lock (120-277V) [13]
DLL347F 1.5 CUL JU	Photocell - SSL twist-lock (347V) [13]
DLL480F 1.5 CUL JU	Photocell - SSL twist-lock (480V) [13]
DSHORT SBK U	Shorting cap [13]
KMA8 DDBXD U	Mast arm mounting bracket adaptor (specify finish) [5]
PUMBA DDBXD U*	Round and square pole universal mounting bracket adaptor (specify finish)
CSX1HS U	House-side shield (includes 2 shields)
CSX1VG U	Vandal guard accessory
CSX1BS U	Bird-deterrent spikes accessory

For more control options, visit DTL and ROAM online.

Tenon Mounting Slipfitter**

Tenon O.D.	Single Unit	2 at 180°	2 at 90°	3 at 120°	3 at 90°	4 at 90°
2-3/8"	AST20-190	AST20-280	AST20-290	AST20-320	AST20-390	AST20-490
2-7/8"	AST25-190	AST25-280	AST25-290	AST25-320	AST25-390	AST25-490
4"	AST35-190	AST35-280	AST35-290	AST35-320	AST35-390	AST35-490

NOTES

1. MVOLT driver operates on any line voltage from 120-277V (50/60 Hz). Specify 120, 208, 240 or 277 options only when ordering with fusing (SF, DF options).
2. Not available with BL30 or BL50.
3. Also available as a separate accessory; see Accessories information at left.
4. 1.5 G vibration load rating per ANCI C136.31.
5. Requires "SPA" mounting option. Must be ordered as a separate accessory; see Accessories information. For use with 2-3/8" mast arm (not included).
6. Specifies a ROAM® enabled luminaire with 0-10V dimming capability; PER option required. Not available with 347 or 480V. Add'l hardware and services required for ROAM® deployment; call 1-800-442-6745.
7. Not available with 347 or 480V.
8. Single fuse (SF) requires 120, 277 or 347 voltage option. Double fuse (DF) requires 208, 240 or 480 voltage option.
9. Provides 50% dimming capability via two independent drivers, each operating half the luminaire. Available with MVOLT and two light engines only. N/A with PER, DCR or DMG.
10. Requires an additional switched line.
11. Dimming driver standard. MVOLT only. Not available with DCR.
12. Not available with 208V, 240V or 480V.
13. Requires luminaire to be specified with PER option. Ordered and shipped as a separate line item.

Performance Data

Lumen Output

Lumen values are from photometric tests performed in accordance with IESNA LM-79-08. Data is considered to be representative of the configurations shown, within the tolerances allowed by Lighting Facts. Contact factory for performance data on any configurations not shown here.

LEDs	Drive Current (mA)	System Watts	Dist. Type	40K					50K				
				Lumens	B	U	G	LPW	Lumens	B	U	G	LPW
60C	700 mA	134W	T2M	15,590	3	0	3	116	15,687	3	0	3	117
			T3M	16,502	3	0	3	123	16,605	3	0	3	124
			T4M	16,479	2	0	3	123	16,582	3	0	3	124
			T5M	16,539	4	0	2	123	16,643	4	0	2	124
			TFTM	16,710	2	0	3	125	16,814	2	0	3	125
	1000 mA	209W	T2M	21,048	3	0	3	101	21,180	3	0	3	101
			T3M	22,279	3	0	3	107	22,418	3	0	4	107
			T4M	22,248	3	0	4	106	22,387	3	0	4	107
			T5M	22,330	5	0	3	107	22,469	5	0	3	108
			TFTM	22,560	3	0	3	108	22,701	3	0	4	109

Lumen Ambient Temperature (LAT) Multipliers

Use these factors to determine relative lumen output for average ambient temperatures from 0-40°C (32-104°F).

Ambient		Lumen Multiplier
0°C	32°F	1.02
10°C	50°F	1.01
20°C	68°F	1.00
25°C	**77°F**	**1.00**
30°C	86°F	1.00
40°C	104°F	0.99

Projected LED Lumen Maintenance

Data references the extrapolated performance projections for the **CSX1 LED 60C** platform in a **25°C ambient**, based on 10,000 hours of LED testing (tested per IESNA LM-80-08 and projected per IESNA TM-21-11).

To calculate LLF, use the lumen maintenance factor that corresponds to the desired number of operating hours below. For other lumen maintenance values, contact factory.

Operating Hours	0	25,000	50,000	100,000
Lumen Maintenance Factor	1.0	0.94	0.90	0.83

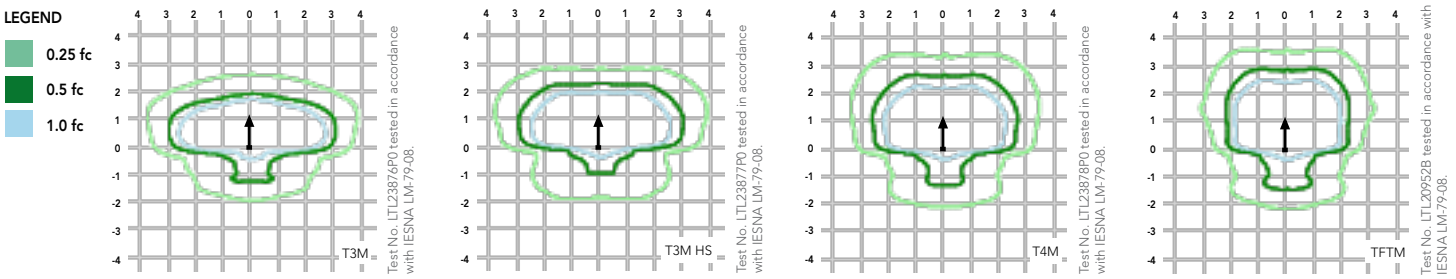
Electrical Load

Number of LEDs	Drive Current (mA)	System Watts	Current (A)					
			120V	208V	240V	277V	347V	480V
60C	700	134W	1.321	0.756	0.659	0.580	0.462	0.337
	1000	209W	2.068	1.198	1.056	0.943	0.764	0.605

Photometric Diagrams

To see complete photometric reports or download .ies files for this product, visit Lithonia Lighting's CSX1 homepage.

Isofootcandle plots for the CSX1 LED 60C 1000 40K. Distances are in units of mounting height (20').



© 2012-2018 Acuity Brands Lighting, Inc. All rights reserved.

FEATURES & SPECIFICATIONS

INTENDED USE
The Contour Series LED area luminaire is ideal for streets, walkways, parking lots, and surrounding areas that call for high-performance LED lighting in a transitional dayform.

CONSTRUCTION
Single-piece die cast housing has a unique flow-through design that allows for optimized thermal management through convective cooling. A metallic screen covers the top of the housing, preventing debris build-up while allowing natural cleaning of the heat sinks. Modular design allows for ease of maintenance and future light engine upgrades. The LED driver and electronics are thermally isolated from the light engine(s), ensuring long life. Housing is completely sealed against moisture and environmental contaminants.

FINISH
Exterior parts are protected by a zinc-infused Super Durable TGIC thermoset powder coat finish that provides superior resistance to corrosion and weathering. A tightly controlled multi-stage process ensures a minimum 3 mils thickness for a finish that can withstand extreme climate changes without cracking or peeling.

OPTICS
Precision-molded acrylic lenses provide optimal luminaire spacing and improved uniformity. Lenses are indexed to the circuit board to ensure consistent optical alignment and delivering repeatable photometric performance. Light engines are available in standard 4000 K (70 CRI) or optional 5000 K (67 CRI) configurations. The CSX1 has zero uplight and qualifies as a Nighttime Friendly™ product, meaning it is consistent with the LEED® and Green Globes™ criteria for eliminating wasteful uplight.

ELECTRICAL
Light engines consist of 60 high-efficacy LEDs mounted to metal-core circuit boards to maximize heat dissipation and promote long life (100,000 hrs at 40°C, L70). Class 1 electronic driver designed to have a power factor >90%, THD <20%, with an expected life of 100,000 hours with <1% failure rate. Easily-serviceable surge protection device meets a minimum Category C Low operation (per ANSI/IEEE C62.41.2).

INSTALLATION
Integral arm provides easy installation to a pole and assists in alignment and leveling. Secure connection withstands up to 3.0 G vibration load rating per ANSI C136.31. The CSX1 utilizes the AERIS™ series pole drilling pattern for SPA and RPA options; wall mounting bracket also available. Available mast arm adapter accessory accepts horizontal tenons up to 2-3/8" O.D.

LISTINGS
CSA Certified to U.S. and Canadian standards. Light engines and luminaire are IP66 rated.
U.S. Patent No. D632830. U.S. Patent No. D653,382 S.

DesignLights Consortium® (DLC) qualified product. Not all versions of this product may be DLC qualified. Please check the DLC Qualified Products List at www.designlights.org to confirm which versions are qualified.

WARRANTY
5-year limited warranty. Complete warranty terms located at:
www.acuitybrands.com/CustomerResources/Terms_and_conditions.aspx

Note: Actual performance may differ as a result of end-user environment and application. All values are design or typical values, measured under laboratory conditions at 25 °C. Specifications subject to change without notice.

© 2012-2018 Acuity Brands Lighting, Inc. All rights reserved.

KAXW
LED Wall Luminaire

Catalog Number

Notes

Type

Hit the Tab key or mouse over the page to see all interactive elements.

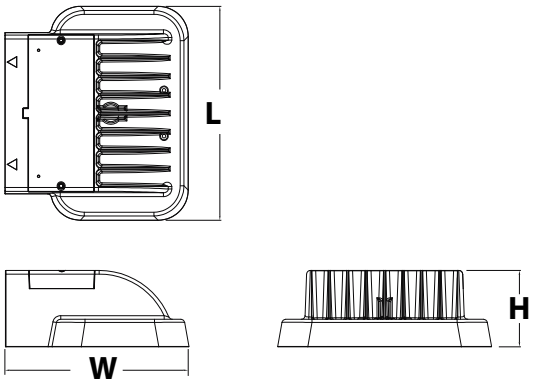
Specifications

Length: 14" (35.6 cm)

Width: 12" (35.6 cm)

Height: 5" (12.7 cm)

Weight (max): 19.7 lbs (8.9 kg)



A+ Capable Luminaire

This item is an A+ capable luminaire, which has been designed and tested to provide consistent color appearance and system-level interoperability.

- All configurations of this luminaire meet the Acuity Brands' specification for chromatic consistency
- This luminaire is A+ Certified when ordered with DTL® controls marked by a shaded background. DTL DLL equipped luminaires meet the A+ specification for luminaire to photocontrol interoperability1
- This luminaire is part of an A+ Certified solution for ROAM® or XPoint™ Wireless control networks, providing out-of-the-box control compatibility with simple commissioning, when ordered with drivers and control options marked by a shaded background[1]

To learn more about A+, visit www.acuitybrands.com/aplus.

1. See ordering tree for details.

A+ Capable options indicated by this color background.

Ordering Information

EXAMPLE: KAXW LED P3 40K R3 MVOLT DDBXD

KAXW LED								
Series	**Performance package**	**Color temperature**	**Distribution**	**Voltage**	**Mounting**	**Control options**	**Other options**	**Finish** *(required)*
KAXW LED	P1 P2 P3	30K 3000 K 40K 4000 K 50K 5000 K	R3 Type 3 R4 Type 4	MVOLT [1] 120 [1] 208 [1] 240 [1] 277 [1] 347 [2] 480 [2]	**Shipped included** (blank) Surface mounting bracket	**Shipped installed** PER NEMA twist-lock receptacle only (controls ordered separate)[3,4] PER5 Five-wire receptacle only (controls ordered separate)[4,5] PER7 Seven-wire receptacle only (controls ordered separate)[4,5] PIR 180° motion/ambient light sensor, <15' mtg ht [6] FAO Field adjustable output[7] PIRH[6] PIR1FC3V[6] PIRH1FC3V[6]	**Shipped installed** SF Single fuse (120, 277 or 347V)[8] DF Double fuse (208, 240 or 480V)[9] HS House-side shield [10] LCE Left Conduit Entry [11] RCE Right Conduit Entry [11] **Shipped separately** BSW Bird-deterrent spikes[10] EGS External glare shield[10]	DDBXD Dark bronze DBLXD Black DNAXD Natural aluminum DWHXD White DSSXD Sandstone DDBTXD Textured dark bronze DBLBXD Textured black DNATXD Textured natural aluminum DWHGXD Textured white DSSTXD Textured sandstone

NOTES

1 MVOLT driver operates on any line voltage from 120-277V (50/60 Hz).
2 Not available in the P1 performance package.
3 Not available with ROAM®. See PER5 or PER7 option.
4 Photocell ordered and shipped as a separate line item from Acuity Brands Controls. See Accessories information.
5 If ROAM® node required, it must be ordered and shipped as a separate line item from Acuity Brands Controls.
6 Specifies the Sensor Switch MSOD-7-ODP control; see Outdoor Control Technical Guide for details. Dimming driver standard. Not available with PER5 or PER7. Must specify 120V or 277V. Requires PER or separate on/off.
7 Not available with PER5 or PER7 options.
8 Must specify 120, 277, or 347V option.
9 Must specify 208, 240, or 480V option.
10 Also available as a separate accessory; see Accessories information.
11 Requires a contractor supplied ½" EMT raintight fitting.
12 Requires luminaire to be specified with PER, PER5 or PER7 option. Ordered and shipped as a separate line item from Acuity Brands Controls.

Accessories

Ordered and shipped separately.

DLL127F 1.5 JU	Photocell - SSL twist-lock (120-277V) [12]
DLL347F 1.5 CUL JU	Photocell - SSL twist-lock (347V) [12]
DLL480F 1.5 CUL JU	Photocell - SSL twist-lock (480V) [12]
DSHORT SBK U	Shorting cap
KAXWHS U	House-side shield
KAXWBSW U	Bird-deterrent spikes
KAXWEGS U	External glare shield

© 2011-2018 Acuity Brands Lighting, Inc. All rights reserved.

Performance Data

Lumen Output

Lumen values are from photometric tests performed in accordance with IESNA LM-79-08. Data is considered to be representative of the configurations shown, within the tolerances allowed by Lighting Facts. Contact factory for performance data on any configurations not shown here.

Performance Package	System Watts	Dist. Type	30K (3000 K, 70 CRI)					40K (4000 K, 70 CRI)					50K (5000 K, 70 CRI)				
			Lumens	B	U	G	LPW	Lumens	B	U	G	LPW	Lumens	B	U	G	LPW
P1	29W	R3	3,322	1	0	1	115	3,545	1	0	1	122	3,607	1	0	1	124
		R4	3,415	1	0	1	118	3,643	1	0	1	126	3,707	1	0	1	128
P2	49W	R3	5,731	1	0	1	117	6,115	1	0	1	125	6,222	1	0	1	127
		R4	5,891	1	0	1	120	6,285	1	0	1	128	6,396	1	0	1	131
P3	79W	R3	8,852	1	0	1	112	9,445	2	0	2	120	9,611	2	0	2	122
		R4	9,099	2	0	2	115	9,708	2	0	2	123	9,879	2	0	2	125

Lumen Ambient Temperature (LAT) Multipliers

Use these factors to determine relative lumen output for average ambient temperatures from 0-50°C (32-122°F).
* Shaded cells include active dynamic temperature sensing.

Ambient	Lumen Multiplier		
	P1	P2	P3
0°C	1.05	1.05	1.05
10°C	1.03	1.03	1.03
20°C	1.01	1.01	1.01
25°C	1	1	1
30°C	0.99	0.99	0.99
40°C	0.97	0.97	0.93
45°C	0.96	0.96	0.84
50°C	0.95	0.95	0.74

Electrical Load

Package		120V	208V	240V	277V	347V	480V
P1	Current (A)	0.24A	0.14A	0.13A	0.11A		
	System Watts	29W	29W	29W	29W		
P2	Current (A)	0.41A	0.24A	0.21A	0.18A	0.14A	0.11A
	System Watts	49W	48W	48W	48W	47W	47W
P3	Current (A)	0.66A	0.38A	0.33A	0.29A	0.23A	0.17A
	System Watts	79W	78W	78W	78W	77W	76W

Projected LED Lumen Maintenance

Operating Hours	25,000	50,000	100,000
Lumen Maintenance Factor	>0.94	>0.89	>0.80

Values calculated according to IESNA TM-21-11 methodology and valid up to 40°C.

PER Table						
Control	PER (3 wire)	PER5 (5 wire)		PER7 (7 wire)		
			Wire 4/Wire5		Wire 4/Wire5	Wire 6/Wire7
Photocontrol Only (On/Off)	✔	⚠	Wired to dimming leads on driver	⚠	Wired to dimming leads on driver	Wires Capped inside fixture
ROAM	⃠	✔	Wired to dimming leads on driver	⚠	Wired to dimming leads on driver	Wires Capped inside fixture
ROAM with Motion (ROAM on/off only)	⃠	⚠	Wires Capped inside fixture	⚠	Wires Capped inside fixture	Wires Capped inside fixture
Future-proof*	⃠	⚠	Wired to dimming leads on driver	✔	Wired to dimming leads on driver	Wires Capped inside fixture
Future-proof* with Motion	⃠	⚠	Wires Capped inside fixture	✔	Wires Capped inside fixture	Wires Capped inside fixture

✔ Recommended
⃠ Will not work
⚠ Alternate

*Future-proof means: Ability to change controls in the future.

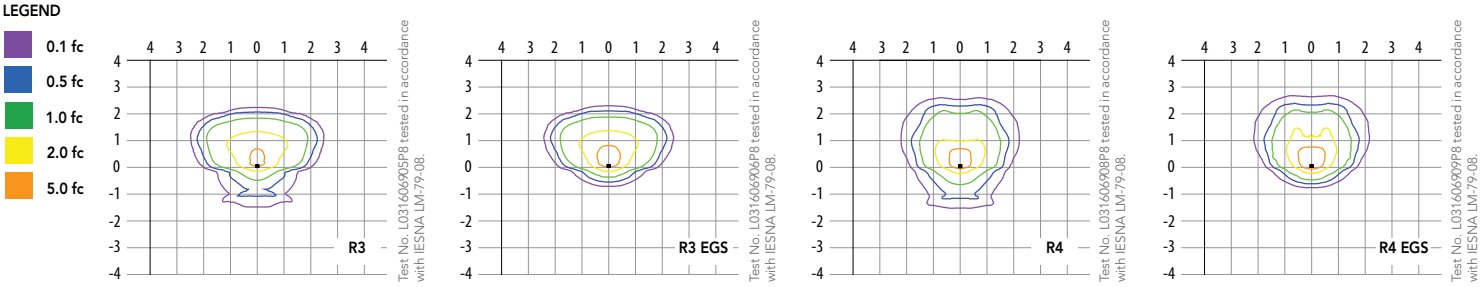
© 2011-2018 Acuity Brands Lighting, Inc. All rights reserved.

Photometric Diagrams

To see complete photometric reports or download .ies files for this product, visit Lithonia Lighting's KAXW homepage.

Isofootcandle plots for the KAXW LED P3 40K. Distances are in units of mounting height (20').

LEGEND



FEATURES & SPECIFICATIONS

INTENDED USE
This feature-rich luminaire embodies the highest level of functionality with extraordinary efficacy which maximizes your application efficiency providing high levels of light for minimal cost specifically for building-mounted doorway and pathway illumination on nearly any type of facility.

CONSTRUCTION
The die-cast aluminum housing has integral heat sink fins to optimize thermal management through conductive and convective cooling. This modular design allows for ease of maintenance and future light engine upgrades. The LED driver is installed in a separate compartment to thermally isolate it from the light engines for low operating temperature and long life. The housing is completely sealed against moisture and environmental contaminants (IP65).

FINISH
Exterior parts are protected by a zinc-infused Super Durable TGIC thermoset powder coat finish that provides superior resistance to corrosion and weathering. A tightly controlled multi-stage process ensures a minimum 3 mils thickness for a finish that can withstand extreme climate changes without cracking or peeling. Available in both textured and non-textured finishes.

OPTICS
Individually formed acrylic lenses are engineered for superior application efficiency which maximizes the light in the areas where it is most needed. Light engines are available in 3000 K, 4000 K or 5000 K (minimum 70 CRI) configurations. The KAXW has zero uplight and qualifies as a Nighttime Friendly™ product, meaning it is consistent with the LEED® and Green Globes™ criteria for eliminating wasteful uplight.

ELECTRICAL
Light engine(s) configurations consist of high-efficacy LEDs mounted to metal-core circuit boards to maximize heat dissipation and promote long life (up to >L80/100,000 hours). Class 1 electronic drivers are designed to have a power factor >90%, THD <20%, and an expected life of 100,000 hours.

INSTALLATION
Included wall mount plate facilitates a quick and easy installation. Mounting bolts feature a 1000-hour salt fog finish. Optional bi-level motion sensor and NEMA 3, 5 or 7 pin twist lock photocontrol receptacle are also available.

LISTINGS
CSA Listed for wet locations. Light engines and electrical compartment are IP66 rated. Rated for temperatures as low as -40°C minimum ambient.

DesignLights Consortium® (DLC) qualified product. Not all versions of this product may be DLC qualified. Please check the DLC Qualified Products List at www.designlights.org/QPL to confirm which versions are qualified.

WARRANTY
5-year limited warranty. Complete warranty terms located at: www.acuitybrands.com/CustomerResources/Terms_and_conditions.aspx.

Note: Actual performance may differ as a result of end-user environment and application. All values are design or typical values, measured under laboratory conditions at 25 °C. Specifications subject to change without notice.

© 2011-2018 Acuity Brands Lighting, Inc. All rights reserved.

Tax Map Number	Name of Property Owner	Address of Property Owner
104800-8.-2-74	Mountain Road School	4565 County Rte 9, East Nassau NY 12067
104800-8.-2-1.112	Casey M Kelly & Heather A Wemple - Kelly	99 Adams Crossing Rd, New Lebanon NY 12125
104800-8.-2-6	Raymond & Gail Sheridan	140 Adams Crossing Rd, East Nassau NY 12062
104800-8.-2-5	Raymond & Gail Sheridan	141 Adams Crossing Rd, East Nassau NY 12062
104800-8.-2-78	495 North Shore Reality LLC	247 Soller Heights Rd, Ghent NY 12075

NOKOMIS LLC
P O BOX 695
NEW LEBANON, NY 12125-3542

539

53-7169/2118
1242

11/3/2018
Date

Pay to the Order of Town of New Lebanon $ 5,000.00

Five Thousand 00/100 Dollars

Photo Safe Deposit® Details on back

BerkshireBank

For

(manager) MP

⑆211871691⑆ 713111383⑈ 0539