CSARCH

Bid Addendum No. 2

February 7, 2023
Clarkstown Central School District – Masonry Reconstruction & Capital Project Phase 5
CSArch Project No. 151-2101 & 151-2201
SED Control No. Varies

Architect's Seal

This Bid Addendum No. 2 forms part of the Contract Documents and modifies the original bidding documents dated January 13, 2023. Bid Addendum No. 2 consists of (1) cover sheet page and (8) 30X42 drawing sheets.

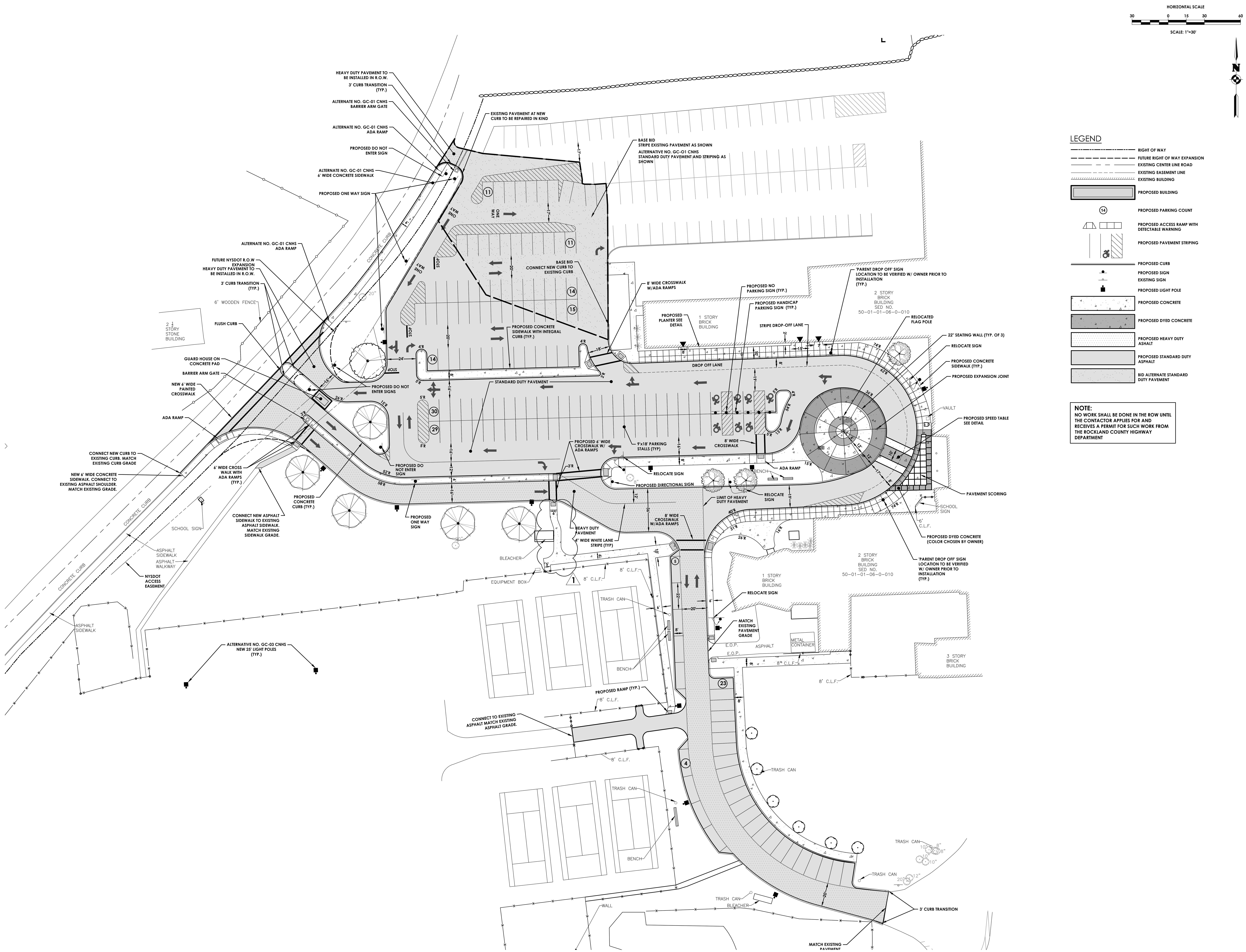
GENERAL INFORMATION

1. Bid Addendum No. 1 was issued to bidders on February 3, 2023.
2. Bid Addendum No. 2 was issued to bidders on February 7, 2023.

REVISIONS TO THE CONSTRUCTION DRAWINGS

1. **DELETE** original drawing sheet CNHS C102 – Site Plan.
2. **DELETE** original drawing sheet CNHS C103 – Existing Conditions & Demolition Plan.
3. **DELETE** original drawing sheet CNHS C104 – Utility Plan.
4. **DELETE** original drawing sheet CNHS C105 – Grading and Erosion Control Plan.
5. **DELETE** original drawing sheet CNHS C106 – Landscape & Lighting Plan.
6. **DELETE** original drawing sheet CNHS C202 – Details.
7. **DELETE** original drawing sheet CNHS C203 – Details.
8. **DELETE** original drawing sheet FFMS C101 – Site Plan.
9. **ADD** attached revised drawing sheet CNHS C102 – Site Plan.
10. **ADD** attached revised drawing sheet CNHS C103 – Existing Conditions & Demolition Plan.
11. **ADD** attached revised drawing sheet CNHS C104 – Utility Plan.
12. **ADD** attached revised drawing sheet CNHS C105 – Grading and Erosion Control Plan.
13. **ADD** attached revised drawing sheet CNHS C106 – Landscape & Lighting Plan.
14. **ADD** attached revised drawing sheet CNHS C202 – Details.
15. **ADD** attached revised drawing sheet CNHS C203 – Details.
16. **ADD** attached revised drawing sheet FFMS C101 – Site Plan.

END OF BID ADDENDUM NO. 2



CSARCH

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Consultant

CLARKSTOWN CENTRAL SCHOOL DISTRICT
CLARKSTOWN NORTH HIGH SCHOOL
CAPITAL PROJECT PHASE 5

Project Title

STATE OF NEW YORK · LICENSED PROFESSIONAL ENGINEER

1	02/03/2023	BID ADDENDUM 1

Drawn By:	BM
Checked By:	SGM
Proj. #:	50-01-01-06-0-010-025
CSArch Proj. #:	151-2201
Construction Documents:	1/13/23

Sheet Title

SITE PLAN

Sheet No.

CNHS C102

CONSTRUCTION DOCUMENTS

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HORIZONTAL SCALE

30 0 15 30 60

SCALE: 1"=30'

N

LEGEND - DEMO:

- PROPERTY BOUNDARY
- R.O.W.
- EXISTING CENTER LINE ROAD
- EXISTING BUILDING
- EXISTING FENCE
- EXISTING EASEMENT LINE
- SETBACK
- EXISTING MAJOR CONTOUR (520)
- EXISTING MINOR CONTOUR (521)
- EXISTING STORM SEWER & MH (D, CB)
- EXISTING WATER SERVICE & VALVE (WV, HYD, W)
- EXISTING SIGN
- EXISTING SANITARY SEWER AND MANHOLE (S, MH)
- EXISTING ELECTRIC LINE & POLE (PP)
- EXIST. LIGHT POLE (LP)
- EXIST. ELECTRIC MANHOLE (E, MH)
- EXIST. ELECTRIC HANDHOLE (HH)
- EXIST. GAS VALVE (GV)
- EXIST. GAS MAIN (G)
- EXIST. WATER MAIN (W)
- EXIST. ELECTRIC LINE (E)
- EXISTING FEATURE TO BE REMOVED
- SAW CUT LIMITS
- EXISTING CONCRETE TO BE REMOVED
- EXISTING FULL DEPTH ASPHALT TO BE REMOVED
- X EXISTING TREE TO BE REMOVED
- EXISTING VEGETATION TO BE REMOVED

NOTE:
NO WORK SHALL BE DONE IN THE ROW UNTIL THE CONTACTOR APPLIES FOR AND RECEIVES A PERMIT FOR SUCH WORK FROM THE ROCKLAND COUNTY HIGHWAY DEPARTMENT

UNDERGROUND UTILITIES NOTE

1. FIELD VERIFY THE LOCATION, SIZE, ELEVATION, AND MATERIAL OF UNDER GROUND UTILITIES AS NOTED ON PLANS USING TEST PITS OR OTHER MEANS. PROVIDE INFORMATION TO THE ENGINEER PRIOR TO ORDERING STORM STRUCTURES ALLOWING ACCURATE MEASUREMENT AND IDENTIFICATION OF UTILITIES.

1

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Project Title

CLARKSTOWN CENTRAL SCHOOL DISTRICT
CLARKSTOWN NORTH HIGH SCHOOL
CAPITAL PROJECT PHASE 5

STATE OF NEW YORK · SHAUNCY G. MADY · 100325 · LICENSED PROFESSIONAL ENGINEER

1	02/03/2023	BID ADDENDUM 1

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Proj. #:	50-01-01-06-0-010-025
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Sheet Title

EXISTING CONDITIONS & DEMOLITION PLAN

Sheet No.

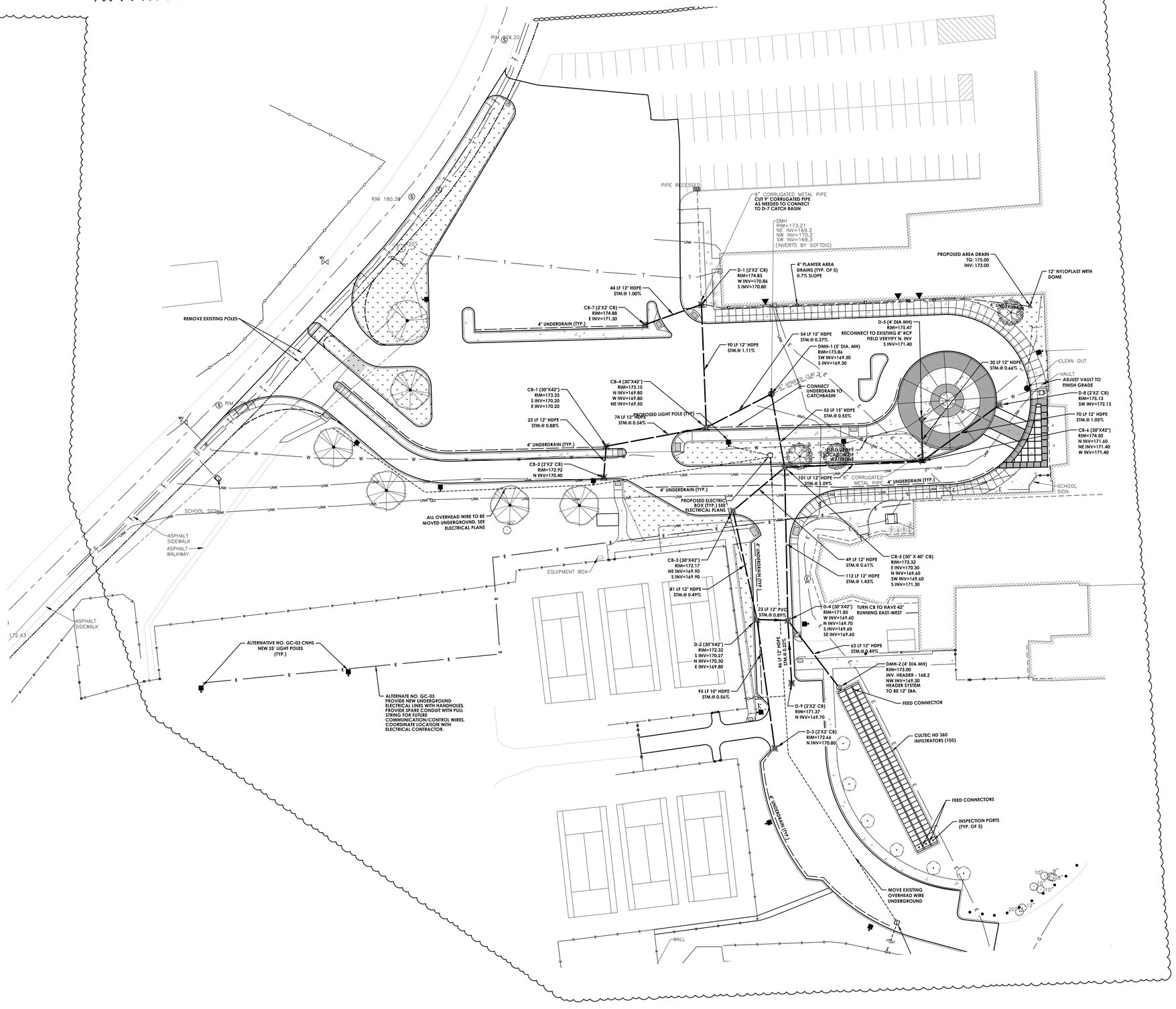
CNHS C103

CONSTRUCTION DOCUMENTS

Y:\PROJECTS-NEW\2021\20213280\0001\01_CAD-BIM-MODELS\CIVIL\20213280.0001_EXCON_DEMO_ADDENDUM.DWG 2/3/2023 3:55 PM Ben Bowden

1. ENTIRE C-104 SHEET REPLACED WITH BID ADDENDUM 1 C-104 SHEET. STORM SEWER SYSTEM REDESIGNED. SEE PLANS FOR CHANGES.

1



HORIZONTAL SCALE

30 0 15 30 60

SCALE: 1"=30'

N

LEGEND - UTILITIES:

- PROPERTY BOUNDARY
- R.O.W.
- EXISTING CENTER LINE ROAD
- EXISTING BUILDING
- EXISTING FENCE
- EXISTING EASEMENT LINE
- PROPOSED EASEMENT LINE
- PROPOSED BUILDING
- PROPOSED CONCRETE
- PROPOSED SIGN
- PROPOSED LIGHT
- PROPOSED STORM SEWER, INLET MH, CB & END SECTION
- EXISTING STORM SEWER & MH
- PROPOSED WATER SERVICE W/ HYDRANT & VALVE
- EXISTING WATER SERVICE & VALVE
- PROPOSED SANITARY SEWER AND MANHOLE
- EXISTING SANITARY SEWER AND MANHOLE
- EXISTING ELECTRIC LINE & POLE
- EXIST. LIGHT POLE
- EXIST. ELECTRIC MANHOLE
- EXIST. ELECTRIC HANDHOLE
- EXIST. GAS VALVE
- EXIST. GAS MAIN
- EXIST. WATER MAIN
- EXIST. ELECTRIC LINE
- PROPOSED UNDERGROUND ELECTRIC
- STORMBRIXX HALF MODULE
- STORMBRIXX FULL MODULE
- STORMBRIXX ACCESS PLATE

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Dig Safely. New York

1-800-962-7962

i-Notice = www.DigSafelyNewYork.com

UTILITY CONTRACTOR COORDINATION NOTES:

1. PRIOR TO THE START OF UTILITY INSTALLATION THE CONTRACTOR AND SUBCONTRACTOR IS RESPONSIBLE FOR COORDINATION OF ALL UTILITY CONNECTIONS WITH MECHANICAL/ARCHITECTURAL DRAWINGS FOR INCLUDING BUT NOT LIMITED TO VERTICAL AND HORIZONTAL LOCATION, PENETRATIONS, AND SIZES. THE CONTRACTOR SHALL OBTAIN WRITTEN PERMISSION TO PROCEED WITH UTILITY INSTALLATION BY THE OWNERS ONSITE REPRESENTATIVE UPON COMPLETION OF COORDINATION WITH CONTRACTORS, AND PLANS.

2. THE DEVELOPER AND HIS/HER CONTRACTOR IS RESPONSIBLE FOR COORDINATING GAS, ELECTRICAL, CABLE, TELEPHONE AND ANY OTHER UTILITIES NOT SPECIFICALLY SHOWN WITHIN THIS PLAN SET WITH APPROPRIATE AGENCY. PASSERO ASSOCIATES ASSUMES NO RESPONSIBILITY FOR THE DESIGN OR PERFORMANCE OF UTILITIES NOT SPECIFICALLY SHOWN WITHIN THIS PLAN SET.

3. PRIOR TO THE START OF UTILITY INSTALLATION THE CONTRACTOR SHALL LOCATE ALL EXISTING UTILITIES VERTICALLY AND HORIZONTALLY AND COORDINATE WITH EXISTING UTILITIES SHOWN ON THE PLANS AND REPORT ANY DISCREPANCIES TO THE DESIGN ENGINEER. THE CONTRACTOR SHALL OBTAIN WRITTEN PERMISSION TO PROCEED WITH UTILITY INSTALLATION BY THE OWNERS ONSITE REPRESENTATIVE UPON COMPLETION EXISTING UTILITY VERIFICATION.

4. THE CONTRACTOR IS REQUIRED TO COORDINATE WITH SITE CONTRACTOR/PLUMBER & SEWER CONTRACTOR TO PREDETERMINE THE NECESSARY WYE & CLEANOUT LOCATION ON THE STORM SEWER SYSTEM. THE STORM SEWER SYSTEM IS RECOMMENDED AND MAY BE MODIFIED TO PROVIDE ADEQUATE ROOF DRAINAGE CONNECTIONS.

5. THRUST BLOCKS ON THE WATERMAIN ARE REQUIRED AT BENDS, TEES OR PLUGS. SEE DETAIL SHEETS FOR THRUST BLOCK DETAILS.

STORM NOTES:

1. STORM SEWERS AND APPURTENANCES SHALL BE CONSTRUCTED IN CONFORMANCE WITH THE LATEST REGULATIONS OF THE MUNICIPALITY
2. PROPOSED STORM SEWER LATERAL MATERIAL:
   PVC SDR-35 6" MIN. SIZE & SHALL BE LAID AT A MINIMUM GRADE OF 1/4" PER FT.
   STORM SEWER MATERIAL:
   ADS HDPE 10" MIN.
3. FOUNDATION DRAINS SHALL BE CONNECTED TO STORM WATER SYSTEM VIA SUMP PUMPS. DOWNSPOUTS SHALL BE CONNECTED TO STORM SEWER WHERE APPLICABLE. WHERE NOTED ON THE PLANS DOWNSPOUTS SHALL DISCHARGE TO SPLASH BLOCKS.
4. UPON COMPLETION OF SYSTEM INSTALLATION, THE MAIN SEWER SYSTEM AND LEADS TO STRUCTURES SHALL BE FLUSHED AND LAMPED OR MANDREL TESTED TO THE SATISFACTION OF THE MUNICIPALITY.

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Project Title

CLARKSTOWN CENTRAL SCHOOL DISTRICT
CLARKSTOWN NORTH HIGH SCHOOL
CAPITAL PROJECT PHASE 5

STATE OF NEW YORK · NANCY G. HUNT · 100325 · LICENSED PROFESSIONAL ENGINEER

Δ	02/01/2023	BID ADDENDUM 1

Drawn By:	BM
Checked By:	SGM
Proj. #:	50-01-01-06-0-010-025
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Construction Documents:	1/13/23

Sheet Title

UTILITY PLAN

Sheet No.

CNHS C 104

CONSTRUCTION DOCUMENTS

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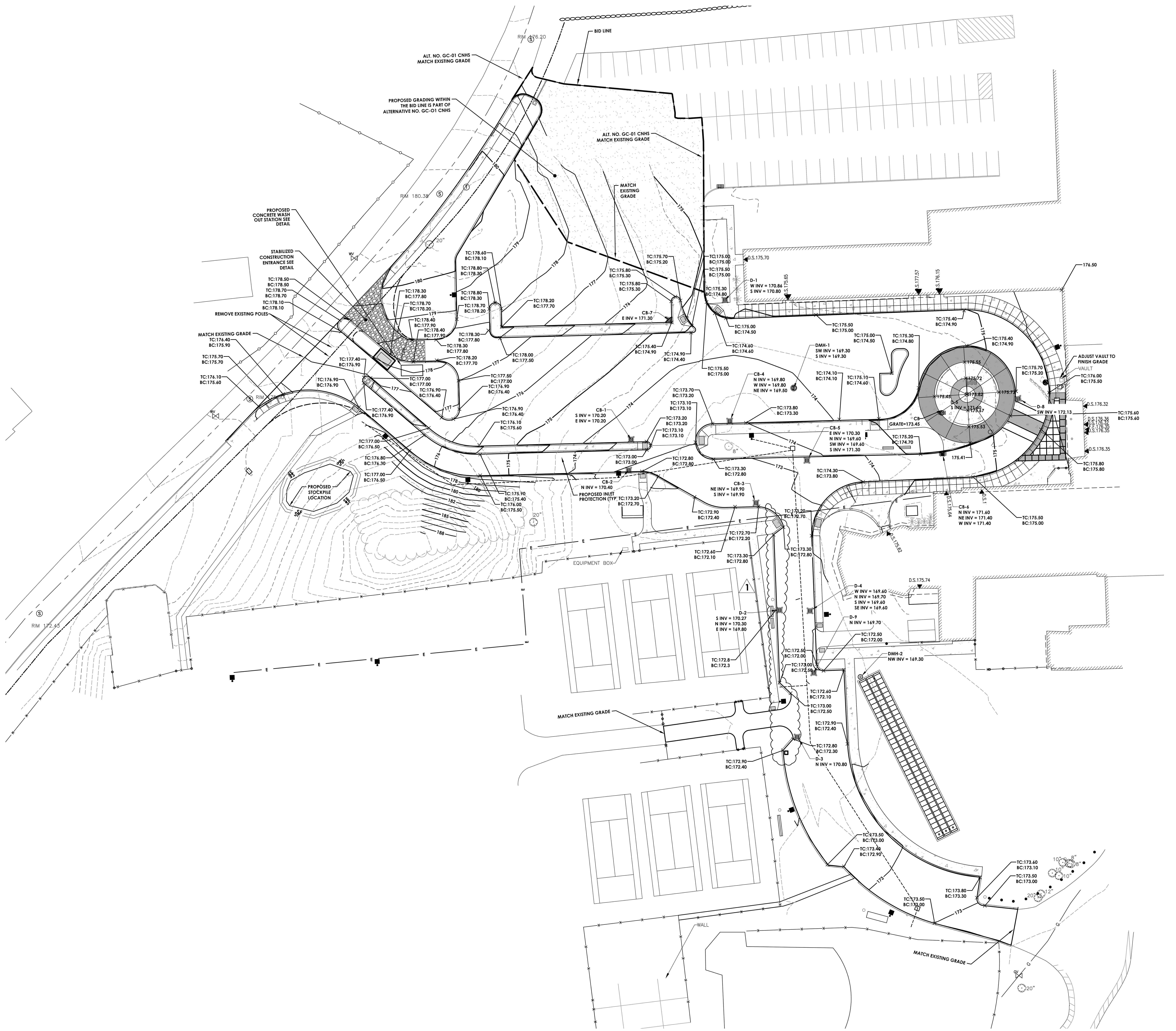

HORIZONTAL SCALE

30 0 15 30 60

SCALE: 1"=30'

LEGEND - GRADING:

- PROPERTY BOUNDARY
- R.O.W.
- EXISTING CENTER LINE ROAD
- EXISTING BUILDING
- EXISTING FENCE
- EXISTING EASEMENT LINE
- PROPOSED EASEMENT LINE
- PROPOSED BUILDING
- PROPOSED CONCRETE
- PROPOSED SIGN
- PROPOSED LIGHT
- 520 EXISTING MAJOR CONTOUR
- 521 EXISTING MINOR CONTOUR
- 520 PROPOSED MAJOR CONTOUR
- 521 PROPOSED MINOR CONTOUR
- SF SILT FENCE
- PROPOSED STORM SEWER, INLET MH, CB & END SECTION
- CB EXISTING STORM SEWER & MH
- PROPOSED WATER SERVICE W/ HYDRANT & VALVE
- HYD WV EXISTING WATER SERVICE & VALVE
- PROPOSED SANITARY SEWER AND MANHOLE
- MH EXISTING SANITARY SEWER AND MANHOLE
- PP EXISTING ELECTRIC LINE & POLE
- LP EXIST. LIGHT POLE
- E MH EXIST. ELECTRIC MANHOLE
- HH EXIST. ELECTRIC HANDHOLE
- GV EXIST. GAS VALVE
- PROPOSED STONE CHECK DAM
- PROPOSED INLET PROTECTION
- PROPOSED TREE/BRUSH LINE
- EXISTING TREE/BRUSH LINE
- SF SILT FENCE
- TC:492.9 BC:492.4 TOP OF: CURB (C), WALL (W), STAIRS (S), RAMP (R) BOTTOM OF: CURB (C), WALL (W), STAIRS (S), RAMP (R)
- X 492.7 492.7 PROPOSED SPOT ELEVATION
- X 491.5 EXISTING SPOT ELEVATION

GRADING NOTES:

1. THE CONTRACTOR SHALL STRIP THE TOPSOIL AND REMOVE ANY UNSUITABLE SOILS, WITHIN THE PROPOSED GRADING LIMITS PRIOR TO PLACEMENT OF FILL MATERIAL.
2. ALL FILL AREAS SHALL BE COMPACTED TO A MINIMUM OF 95% OF MAXIMUM DENSITY OF STANDARD PROCTOR TEST AT OPTIMUM MOISTURE CONTENT.
3. THE COMPACTION TESTS WILL BE CONDUCTED BY A LICENSED TESTING LABORATORY AND RESULTS SUBMITTED TO DESIGN ENGINEER.
4. SLOPES SHALL NOT EXCEED 1' VERTICAL TO 3' HORIZONTAL.
5. CONTRACTOR SHALL TAKE ALL REASONABLE MEASURES TO PROTECT EXISTING TREES WHICH ARE TO BE PRESERVED FROM ALL POSSIBLE TYPES OF ROOT, TRUNK AND LIMB DAMAGE; INCLUDING BUT NOT LIMITED TO, RETAINING WALLS WHICH PREVENT FILLING ON TOP OF ROOTS OR EXCAVATING TREE ROOTS.
6. THE PROPOSED STORMWATER MAINTENANCE FACILITIES WILL BE PRIVATE

Table 5.3 Soil Restoration Requirements

Type of Soil Disturbance	Soil Restoration Requirement		Comments/Examples
No soil disturbance	Restoration not permitted		Preservation of Natural Features
Minimal soil disturbance	Restoration not required		Clearing and grubbing
Areas where topsoil is stripped only - no change in grade	HSG A &B	HSG C&D	Protect area from any ongoing construction activities.
	apply 6 inches of topsoil	Aerate* and apply 6 inches of topsoil	
Areas of cut or fill	HSG A &B	HSG C & D	
	Aerate and apply 6 inches of topsoil	Apply full Soil Restoration **	
Heavy traffic areas on site (especially in a zone 5-25 feet around buildings but not within a 5 foot perimeter around foundation walls)	Apply full Soil Restoration (de-compaction and compost enhancement)		
Areas where Runoff Reduction and/or Infiltration practices are applied	Restoration not required, but may be applied to enhance the reduction specified for appropriate practices.		Keep construction equipment from crossing these areas. To protect newly installed practice from any ongoing construction activities construct a single phase operation fence area
Redevelopment projects	Soil Restoration is required on redevelopment projects in areas where existing impervious area will be converted to pervious area.		

*Aeration includes the use of machines such as tractor-drawn implements with coulters making a narrow slit in the soil, a roller with many spikes making indentations in the soil, or prongs which function like a mini-subsoiler.

NYSDEC SOIL RESTORATION REQUIREMENTS

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CAPITAL PROJECT PHASE 5

STATE OF NEW YORK · SHAUNCY G. MADDY · 100325 · LICENSED PROFESSIONAL ENGINEER

1 02/03/2023 BID ADDENDUM 1

Drawn By:	BM
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Proj. #:	50-01-01-06-0-010-025
CSArch Proj. #:	151-2201
Construction Documents:	1/13/23

Sheet Title

GRADING AND EROSION CONTROL PLAN

Sheet No.

CNHS C 105

CONSTRUCTION DOCUMENTS

CSARCH
19 Front St. · Newburgh · New York 12550-7601
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Consultant

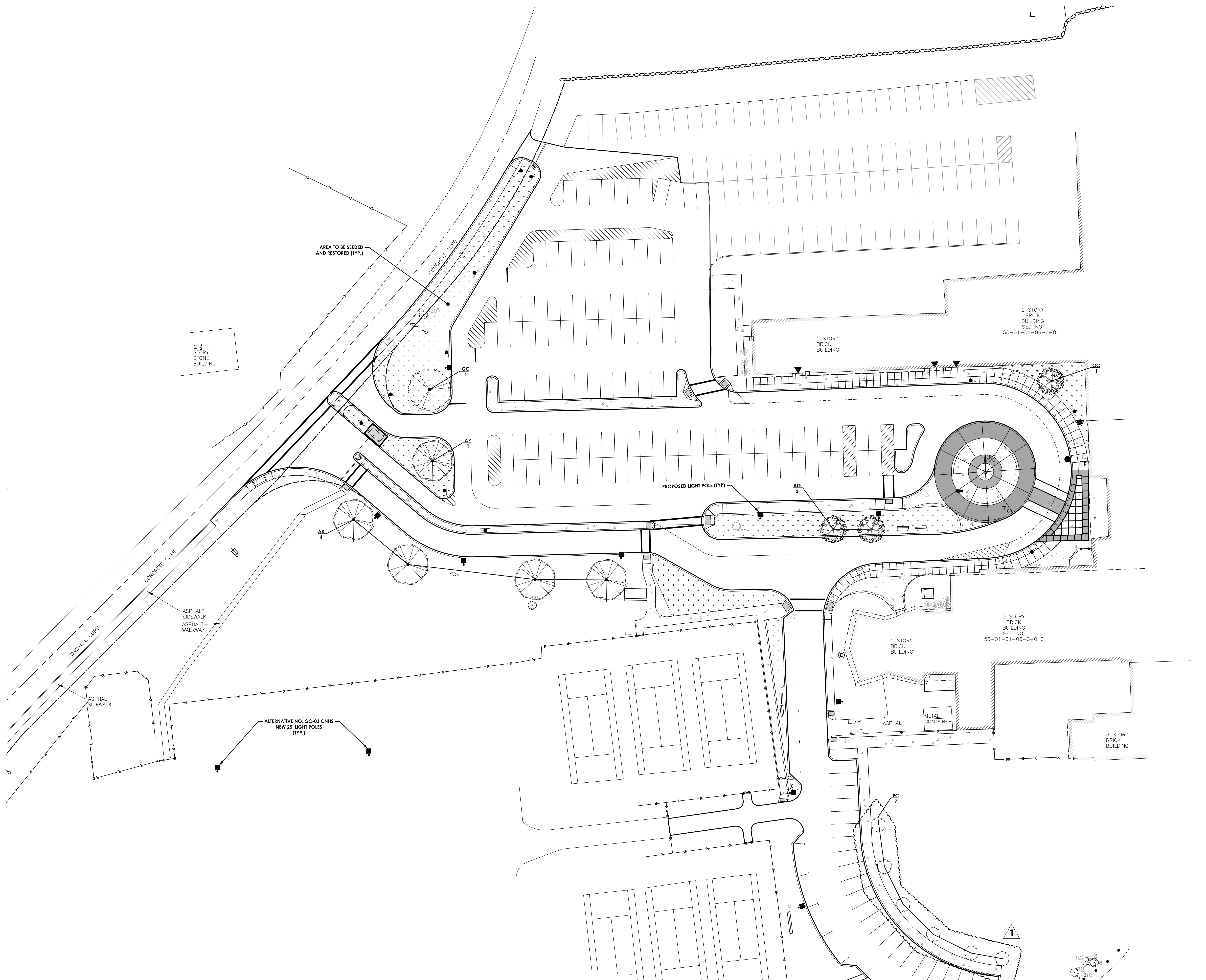
Project Title

CLARKSTOWN CENTRAL SCHOOL DISTRICT
CLARKSTOWN NORTH HIGH SCHOOL
CAPITAL PROJECT PHASE 5

HORIZONTAL SCALE

30 0 15 30 60

SCALE: 1"=30'



LANDSCAPING NOTES:

1. CONTRACTOR SHALL OBTAIN ALL NECESSARY STATE AND LOCAL PERMITS REQUIRED. ALL CONSTRUCTION SHALL CONFORM TO APPLICABLE TOWN AND STATE DESIGN STANDARDS AND CODES.
2. IT IS THE LANDSCAPE CONTRACTORS RESPONSIBILITY TO VISIT THE SITE PRIOR TO BID SUBMITTAL, TO BECOME FAMILIAR WITH EXISTING CONDITIONS AT THE SITE.
3. STANDARDS SET FORTH IN THE "AMERICAN STANDARD FOR NURSERY STOCK", ANSI Z60.1 (LATEST EDITION) REPRESENT GUIDELINE SPECIFICATIONS ONLY AND SHALL CONSTITUTE THE MINIMUM QUALITY REQUIREMENTS FOR PLANT MATERIALS DELIVERED AND INSTALLED ON THIS PROJECT.
4. ALL PLANTS MUST BE HEALTHY, VIGOROUS AND FREE OF PESTS AND DISEASE.
5. ALL PLANTS MUST BE HARDY UNDER CLIMATE CONDITIONS THAT EXIST AT THE PROJECT SITE AND GROWN AT A NURSERY IN THE SAME HARDINESS ZONE AS THE PROJECT LOCATION.
6. ALL PLANTS MUST BE CONTAINER GROWN OR BALLED AND BURLAPPED AN MEET SIZE REQUIREMENTS AS INDICATED ON THE PLANT LIST.
7. ALL TREES MUST BE STRAIGHT-TRUNKED, INJURY FREE, HAVE A FULL, SYMMETRICAL CROWN (HEAD) AND MEET ALL REQUIREMENTS SPECIFIED (E.G. SINGLE STEM, MULTI-STEM, HEAVY BRANCHED, ETC.).
8. ANY PROPOSED DEVIATION TO THE LANDSCAPE PLAN MUST FIRST BE REVIEWED AND APPROVED BY THE LANDSCAPE ARCHITECT PRIOR TO THE INSTALLATION OF THE PROPOSED LANDSCAPING CHANGES.
9. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL QUANTITIES SHOWN ON THESE PLANS. THE BID PRICE SUBMITTED WILL ASSUME THAT ALL PLANT MATERIALS DELINEATED WILL BE SUPPLIED AND INSTALLED. ANY DISCREPANCIES IN THE QUANTITIES SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER AND/OR DESIGN LANDSCAPE ARCHITECT (OWNER'S REPRESENTATIVE) PRIOR TO COMPLETING A BID PRICE.
10. ALL GRADING AND UTILITY WORK SHALL BE COMPLETED PRIOR TO INSTALLATION OF PLANT MATERIAL AND LANDSCAPE MULCH.
11. THE FINAL LOCATION OF TREES AND OTHER LANDSCAPING SHALL BE DETERMINED IN THE FIELD BASED ON UTILITY STAKEOUT AND SHALL NOT CONFLICT WITH TRAFFIC SIGNS AND/OR UTILITIES. STAKE OUT SHALL BE APPROVED BY OWNER'S REPRESENTATIVE PRIOR TO BEGINNING WORK.
12. ANY CONCERNS RELATED TO SITE CONDITIONS AND/OR PLANT LOCATIONS SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION.
13. PLANTING BACKFILL MIXTURE: 4 PARTS TOPSOIL (ON-SITE OR IMPORTED), 1 PART PEAT MOSS, 1/2 PART WELL ROTTED MANURE AND 10 LBS. 5-0-5 PLANTING FERTILIZER, MIXED THOROUGHLY PER CUBIC YARD.
14. MULCH ALL PLANT BEDS, AND INDIVIDUAL TREES IN LAWN AREAS WITH SHREDDED HARDWOOD BARK MULCH TO A DEPTH OF THREE (3") INCHES UNLESS OTHERWISE SPECIFIED ON PLANTING DETAILS, OR AS DIRECTED BY THE LANDSCAPE ARCHITECT DUE TO SITE CONDITIONS.
15. ANY PLANT WHICH TURNS BROWN, DEFOLIATES OR DIES PRIOR TO FINAL ACCEPTANCE BY THE OWNER, OR DESIGN LANDSCAPE ARCHITECT, SHALL BE PROMPTLY REMOVED FROM THE SITE AND REPLACED WITH THE SAME PLANT (SPECIES, VARIETY AND SIZE) AS SPECIFIED ON THE PLANT SCHEDULE (LIST).
16. THE CONTRACTOR SHALL MAINTAIN ALL PLANT MATERIALS AND LAWN AREAS UNTIL THE PROJECT HAS RECEIVED FINAL ACCEPTANCE BY THE OWNER OR OWNER'S REPRESENTATIVE. MAINTENANCE SHALL INCLUDE, BUT NOT BE LIMITED TO: WATERING, MULCHING, FERTILIZING, SPRAYING (FUNGICIDE, PESTICIDE, ANTI-DESICANT), AS WELL AS RAISING PLANTS THAT HAVE SETTLED TOO DEEP OR REQUIRE STRAIGHTENING.
17. UPON COMPLETION AND ACCEPTANCE OF THE LANDSCAPING, THE LANDSCAPE MATERIALS SHALL BE GUARANTEED FOR TWO (2) YEARS. THE GUARANTEE SHALL BE INCLUSIVE OF ALL MATERIAL AND LABOR COSTS. AT THE END OF THE GUARANTEE PERIOD THE OWNERS REPRESENTATIVE WILL INSPECT ALL PLANT MATERIALS. THE CONTRACTOR SHALL PROMPTLY MAKE ALL REQUIRED REPLACEMENTS WITH PLANT MATERIALS MEETING THE SPECIFICATIONS (E.G. SPECIES, SIZE AND CHARACTER).
18. ALL AREAS DISTURBED BY SITE GRADING AND/OR UTILITY INSTALLATION SHALL RECEIVE APPROVED TOPSOIL (BASED ON APPROVED SAMPLES SUBMITTED BY THE CONTRACTOR) AND SPREAD TO A DEPTH NOT LESS THAN SIX (6")INCHES AFTER COMPACTION. TOPSOIL PLACED FOR LAWNS SHALL BE FINE GRADED, SEEDED, MULCHED AND WATERED UNTIL A HEALTHY STAND OF GRASS IS ESTABLISHED. THIS IS EXCLUDING FOUNDATION PLANT BEDS, AND ENTRANCE AREAS.
19. LOCATIONS OF EXISTING BURIED UTILITIES SHOWN ON THE SITE PLAN ARE BASED UPON THE BEST AVAILABLE INFORMATION AND ARE TO BE CONSIDERED APPROXIMATE. THE CONTRACTOR IS RESPONSIBLE TO CALL FOR A UTILITY STAKEOUT PRIOR TO COMMENCING PLANT INSTALLATION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING ANY AND ALL DAMAGE TO UTILITIES, STRUCTURES, AND SITE APPURTENANCES WHICH OCCURS AS A RESULT OF LANDSCAPE INSTALLATION OPERATIONS.
20. EXISTING TREES INDICATED TO BE REMOVED SHALL OCCUR UNDER THE SITE CONTRACT FOR THIS PROJECT. THE LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR NEW PLANTINGS OR RESTORATION OF THE DISTURBED AREA (LAWNS, PLANT BEDS, ISLANDS).
21. PRE-EMERGENT HERBICIDE SHALL BE USED UNDER MULCH IN ALL TREE AND PLANT BED AREAS.
22. ALL SHRUB BEDS ADJACENT TO LAWN AREAS SHALL HAVE A SPADED EDGE BORDER, UNLESS METAL EDGE, CONCRETE, OR OTHER BORDER IS SPECIFIED.

***Seed Mix B** only when you have wet-occasional wet locations.

TOPSOIL AND SEEDING NOTES:

1. THE EARTHWORK CONTRACTOR IS RESPONSIBLE FOR ROUGH GRADING AND RE-SPREADING TOPSOIL IN ALL TURF AND LANDSCAPE AREAS (BEDS AND ISLANDS).
2. THE LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR FINE GRADING AND PREPARATION OF ALL LAWN AND LANDSCAPE AREAS.
3. REMOVE ALL EXISTING VEGETATION DURING GRADING PROCESS.
4. APPLY MINIMUM OF SIX (6) INCHES OF CLEAN TOPSOIL(IMPORTED OR SCREEN ON -SITE) AND FINE GRADE, LEAVING TOPSOIL IN A LOOSE AND FRIABLE CONDITION FOR SEEDING.
5. LIME SOIL OR ADD OTHER ORGANIC AMENDMENTS AS NECESSARY TO ACHIEVE A SOIL pH BETWEEN 5.5 - 7.0.
6. LANDSCAPE CONTRACTOR SHALL WORK OVER LAWN AREAS THAT HAVE REMAINED PARTIALLY INTACT, TOP DRESSING WITH SOIL. SCARIFYING, AND SEEDING TO FORM A SMOOTH, FULL, EVEN LAWN, FREE OF BARE SPOTS, INDENTATIONS, AND WEEDS.
7. SEEDING SHOULD BEGIN IMMEDIATELY UPON COMPLETION OF FINE GRADING. SEED SHOULD BE PRESSED INTO THE SOIL TO CREATE GOOD SEED-TO-SOIL CONTACT, NO DEEPER THAN THE THICKNESS OF THE SEED.
8. FERTILIZING, APPLY 10-0-10 FERTILIZER EVENLY AT THE RATE OF 20 POUNDS PER 1000 SQ FT. NO FERTILIZER CONTAINING PHOSPHORUS IS PERMITTED ON SITE.
9. SEED SHOULD BE APPLIED EITHER BY HAND BROADCASTING OR HYDRO SEEDING. TWO PASSES SHALL BE MADE IN PERPENDICULAR DIRECTIONS TO INSURE PROPER COVERAGE.
10. LAWN SEED MIX

    MIX A: SEEDING RATE: 6 LBS./1,000 SQ.FT
    LOW MAINTENANCE FESCUE LAWN
    PREFERRED SEED : LOW MAINTENANCE GRASS SEED MIX 0R APPROVED EQUAL

    25% FIREFLY HARD FESCUE
    25% BIG HORN GT HARD/SHEEP
    20% INTRIGUE CHEWINGS FESCUE
    20% QUATRO SHEEP FESCUE
    10% MINOTAUR HARD FESCUE

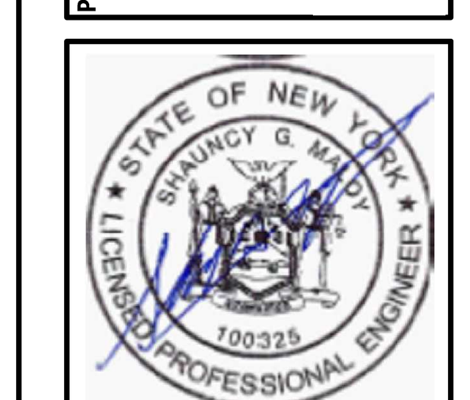
    MIX B: SEEDING RATE: 4LBS./1,000 SQ.FT
    OCCASIONAL WET - WET LOCATIONS:
    20% RED TOP — 20% VIRGINIA WILD RYEGRASS
    20% ALKALI GRASS — 20% FOX SEDGE
    10% AUTUMN BENTGRASS — 10% FOWL BLUEGRASS

11. DRY APPLICATION MULCH
    A. STRAW MULCH SHOULD BE APPLIED TO NEWLY SEEDED AREAS WITHIN 12 HOURS IF HYDRO MULCH IS NOT UTILIZED.
    B. DRY APPLICATION, STRAW: STALKS OF OATS, WHEAT, RYE OR OTHER APPROVED CROPS WHICH ARE FREE OF NOXIOUS WEEDS. WEIGHT SHALL BE BASED ON A 15 PERCENT MOISTURE CONTENT.
    C. DRY APPLICATION: WITHIN ONE DAY AFTER SEEDING, COVER THE SEEDED AREAS WITH A UNIFORM BLANKET OF STRAW MULCH AT THE RATE OF 100 POUNDS PER 1000 SQ FT OF SEEDED AREA.
12. HYDRO APPLICATION: APPLY APPROVED MULCH IN ACCORDANCE WITH THE MANUFACTURER'S WRITTEN INSTRUCTIONS AND RECOMMENDED RATES OF APPLICATION. APPLY SEEDING MATERIALS WITH AN APPROVED HYDRO SEEDER.

    A.COLORED WOOD CELLULOSE FIBER PRODUCT SPECIFICALLY DESIGNED FOR USE AS A HYDRO-MECHANICAL APPLIED MULCH. ACCEPTABLE PRODUCT: CONWED HYDRO MULCH, CONWED FIBERS, 231 4TH STREET SW, HICKORY, NC
13. FILL TANK WITH WATER AND AGITATE WHILE ADDING SEEDING MATERIALS. USE SUFFICIENT FERTILIZER, MULCH, AND SEED TO OBTAIN THE SPECIFIED APPLICATION RATE. ADD SEED TO THE TANK AFTER THE FERTILIZER AND MULCH HAVE BEEN ADDED. MAINTAIN CONSTANT AGITATION TO KEEP CONTENTS IN HOMOGENEOUS SUSPENSION. PROLONGED DELAYS IN APPLICATION OR AGITATION THAT MAY BE INJURIOUS TO THE SEED WILL BE THE BASIS OF REJECTION OF MATERIAL REMAINING IN TANK.
14. DISTRIBUTE UNIFORMLY A SLURRY MIXTURE OF WATER, SEED, FERTILIZER, AND MULCH AT A MINIMUM RATE OF 57 GALLONS PER 1000 SQ FT (2500 GALLONS PER ACRE). THE OWNER AND PROJECT REPRESENTATIVE MAY ORDER THE AMOUNT OF WATER INCREASED IF DISTRIBUTION OF SEEDING MATERIALS IS NOT UNIFORM.

PLANT SCHEDULE

DECIDUOUS TREES	CODE	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER	MATURE HEIGHT
	AR	5	ACER RUBRUM 'OCTOBER GLORY'	OCTOBER GLORY RED MAPLE	3-3.5"	B&B	50-80'
	QC	1	QUERCUS COCCINEA	SCARLET OAK	3-3.5"	B&B	50-60'
FLOWERING AND ORNAMENTAL TREES	**CODE**	**QTY**	**BOTANICAL NAME**	**COMMON NAME**	**SIZE**	**CONTAINER**	**MATURE HEIGHT**
	AG	3	ACER GRISEUM	PAPERBARK MAPLE	2-2.5"	B&B	20-30'
	PC	7	PYRUS CALLERYANA	REDSPIRE PEAR	2-2.5"	B&B	20-30'



1	02/03/2023	BID ADDENDUM 1

Drawn By:	BM
Checked By:	SGM
Proj. #:	50-01-01-06-0-010-025
CSArch Proj. #:	151-2201
Construction Documents:	1/13/23

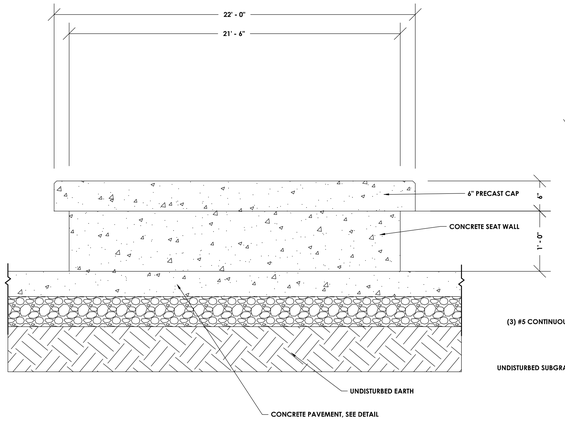
Sheet Title

LANDSCAPE & LIGHTING PLAN

Sheet No.

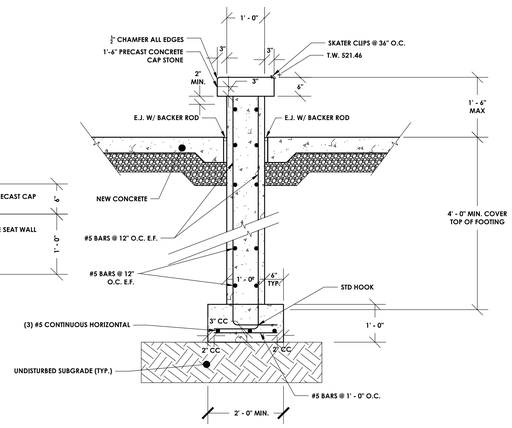
CNHS C 106

CONSTRUCTION DOCUMENTS



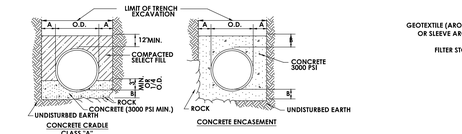
CONCRETE SEAT WALL ELEVATIONS, SECTION B-B

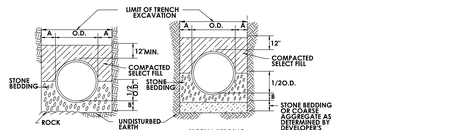
N.T.S.



CONCRETE SEAT WALL SECTION A-A

N.T.S.



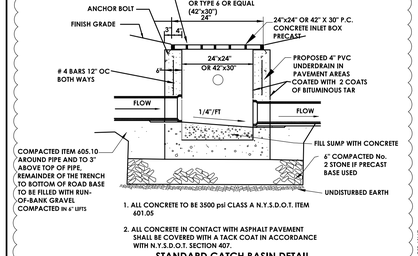


PIPE DIA.	DIM. A	DIM. B
UP TO 18"	1.0'	6"
21" TO 36"	1.5'	9"
OVER 36"	1.5'	12"

1. TRENCH BACKFILL SHALL BE AS REQUIRED BY THE HIGHWAY OWNER.
2. SELECT FILL SHALL BE SAND, GRAVEL, AND SIMILAR MATERIAL WHICH SHALL BE FREE FROM CLAY, LOAM, ORGANIC MATERIAL, DEBRIS, FROZEN MATERIAL AND SHALL CONTAIN ONLY SMALL AMOUNTS OF STONE, PEBBLES OR LUMPS OVER ONE INCH IN GREATEST DIMENSION BUT NONE OVER TWO INCHES IN GREATEST DIMENSION.
3. STONE BEDDING SHALL MEAN APPROVED IMPORTED AGGREGATE MEETING THE REQUIREMENTS OF THE NEW YORK STATE DEPARTMENT OF TRANSPORTATION, STANDARD SPECIFICATION, JAN 2, 1990 EDITION, AS REVISED, SUBSECTION 703-0201 "CRUSHED STONE", PRIMARY SIZE 1 OR A MIXTURE OF PRIMARY SIZES 1 AND 2.
4. COARSE AGGREGATE SHALL MEAN APPROVED IMPORTED AGGREGATE MEETING THE REQUIREMENTS OF THE NEW YORK STATE DEPARTMENT OF TRANSPORTATION, STANDARD SPECIFICATION, JAN 2, 1990 EDITION, AS REVISED, SUBSECTION 703-0201 "CRUSHED STONE". PRIMARY SIZE 3 AND/OR 4
5. THIS FIGURE APPLIES TO SANITARY MAINLINE AND LATERAL PIPE INSTALLATION AS WELL AS FORCEMAINS.

STORM SEWER/SANITARY SEWER BEDDING DETAILS

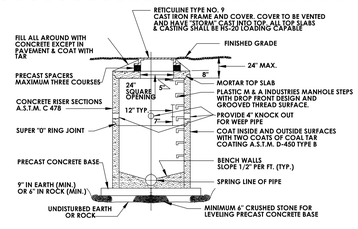
N.T.S.



1. ALL CONCRETE TO BE 3500 psi CLASS A N.Y.S.D.O.T. ITEM 601.05
2. ALL CONCRETE IN CONTACT WITH ASPHALT PAVEMENT SHALL BE COVERED WITH A TACK COAT IN ACCORDANCE WITH N.Y.S.D.O.T. SECTION 407.

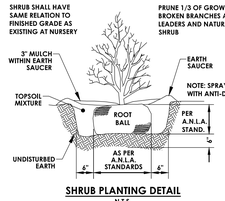
STANDARD CATCH BASIN DETAIL

N.T.S.



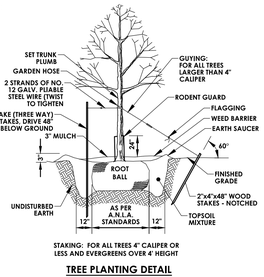
STANDARD STORM MANHOLE DETAIL

N.T.S.



SHRUB PLANTING DETAIL

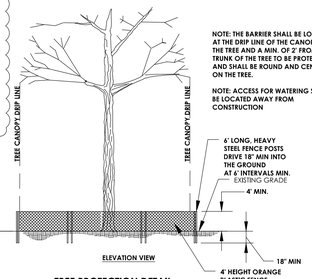
N.T.S.



STAKING: FOR ALL TREES 4" CALIPER OR LESS AND EVERGREENS OVER 4' HEIGHT

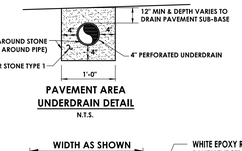
TREE PLANTING DETAIL

N.T.S.



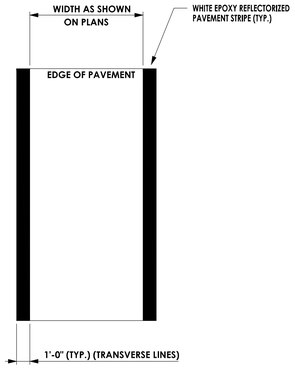
TREE PROTECTION DETAIL

N.T.S.

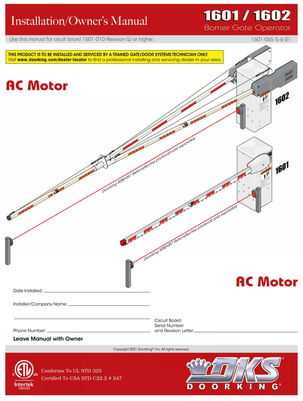


PAVEMENT AREA UNDERDRAIN DETAIL

N.T.S.

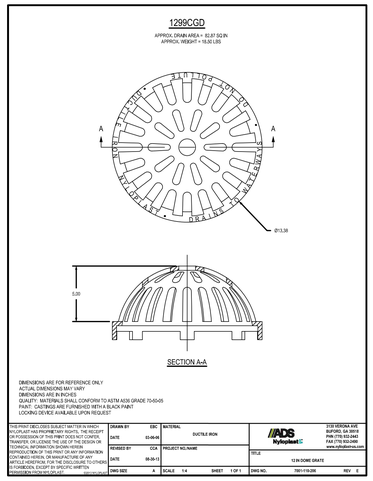


STANDARD TYPE S CROSSWALK DETAIL

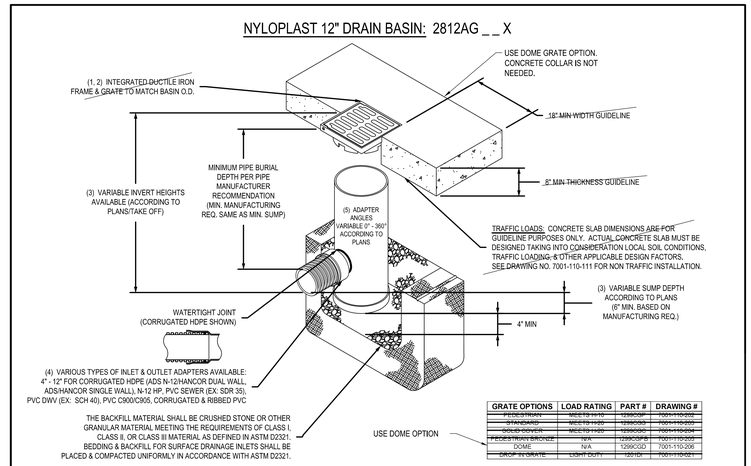


DROP ARM GATE DETAIL

N.T.S.



NYLOPLAST 12" DRAIN BASIN: 2812AG _ _ X

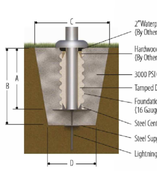


GRATE OPTIONS	LOAD RATING	PART #	DRAWING #
FLUSH GRATE	MEETS H-10	1299CGS	7001-110-202
3" STANDARD	MEETS H-20	1299CGF	7001-110-203
SOLID COVER	MEETS H-20	1299CGB	7001-110-204
FLUSH TRAY BRONZE	N/A	1299CGFB	7001-110-205
DOME	N/A	1299CGD	7001-110-206
GROUP IN GRATE	LIGHT DUTY	1251D	7001-110-207

1 - GRATES/SOLID COVER SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05, WITH THE EXCEPTION OF THE BRONZE GRATE.
2 - FRAMES SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05
3 - DRAIN BASIN TO BE CUSTOM MANUFACTURED ACCORDING TO PLAN DETAILS. RISERS ARE NEEDED FOR BASINS OVER 84" DUE TO SHIPPING RESTRICTIONS. SEE DRAWING NO. 7001-110-065
4 - DRAINAGE CONNECTION STUB JOINT TIGHTNESS SHALL CONFORM TO ASTM D3212 FOR CORRUGATED HDPE (ADS N-12/HANCOR DUAL WALL), N-12 HP, & PVC SEWER.
5 - ADAPTERS CAN BE MOUNTED ON ANY ANGLE 0° TO 360°. TO DETERMINE MINIMUM ANGLE BETWEEN ADAPTERS SEE DRAWING NO. 7001-110-012.

DRAWN BY: EBC
DATE: 03-09-06
REVISED BY: NMH
DATE: 03-11-16
MATERIAL:
PROJECT NO./NAME:
TITLE: 12 IN DRAIN BASIN QUICK SPEC INSTALLATION DETAIL
DWG SIZE: A
SCALE: 1:20
SHEET: 1 OF 1
DWG NO.: 7001-110-189
REV: E
ADS Nyloplast
3130 VERONA AVE
BUFORD, GA 30518
PHN (770) 932-2443
FAX (770) 932-2490
www.nyloplast-us.com

GROUND SLEEVE WITH STEEL LIGHTNING SPIKE INSTALLATION



Ground Set

Forged Mounting Height	A	B	C	D
20'-0"	7'-0"	7'-6"	30"	24"
25'-0"	7'-6"	3'-0"	36"	24"
30'-0"	3'-0"	3'-6"	36"	24"
35'-0"	3'-6"	4'-0"	36"	30"
40'-0"	4'-0"	4'-6"	45"	36"
45'-0"	4'-6"	5'-0"	45"	36"
50'-0"	5'-0"	5'-6"	58"	42"
60'-0"	6'-0"	6'-6"	60"	48"
70'-0"	7'-0"	7'-6"	60"	48"
80'-0"	8'-0"	8'-6"	72"	48"

NAAMM's Metal Flagpole Manual offers basic suggestions on foundation measurements in firm, dry soil only using dry tamped sand and 3000 PSI concrete. Soil conditions vary by site. Exact foundation requirements should be verified by a Structural Engineer with knowledge of soil conditions in your locality.

FLAGPOLE BASE AND SLEEVE DETAIL

N.T.S.

SIGN	DESIGNATION	
DO NOT ENTER	R5-1	
ONE WAY	R6-2	24X30
KEEP RIGHT	R4-7A	18X24

BREAKAWAY SIGN POST DETAIL

N.T.S.

Customer Name:	
Dealer:	Qty: 1
Project:	Location:
Notes:	

ISW35C71G-TAB-00M-C1K-ACL

ISW35C71 - ACL

TRK-9650-CLR
Int. Revolving Truck Sealed Bearings

BAL-0812-ACL
HD Clear Anodized Aluminum Ball

COL1-F07C-CLR
FC-121 Cast Alum 1-Piece

ACL
Clear Anodized

ISW - WINCH
Reinforced Raised Door Frame

NOTE: Flagpole Components on Anodized and Powder Coat flagpoles (excluding specified Ornaments and Ball Trucks) will match flagpole color specified.

Specifications
A. Mounting Height: 35'
B. Set Depth: 3'-6"
C. Total Length: 38'-6"
D. Butt Diameter: 7"
E. Wall Thickness: .156"
F. Top Diameter: 3.5"
Flagpole Sections: 1
Shaft Weight: 197 lbs.
Hardware Weight: 30 lbs.
Ground Sleeve Weight: 39 lbs.
* Max Flag Size: 6' x 10'
* Max Wind Speed w/Nylon Flag: 110 mph
* Max Wind Speed No Flag: 165 mph
* Wind Speed Specifications from ANSI/NAAMM FP 1001-07

1

19 Front St., Newburgh, New York 12550-7601
845 561 3179 www.csarchpc.com
CSARCH

Consultant

CLARKSTOWN CENTRAL SCHOOL DISTRICT
CLARKSTOWN NORTH HIGH SCHOOL
CAPITAL PROJECT PHASE 5

Project Title

1	02/01/2022	BID ADDENDUM 1

Drawn By:	BM
Checked By:	SGM
Proj. #:	50-01-01-06-0-010-025
CSArch Proj. #:	151-2201
Construction Documents:	1/13/22

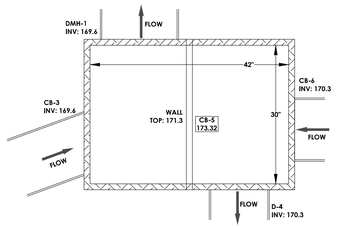
Sheet Title

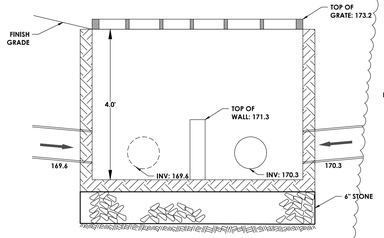
DETAILS

Sheet No.

CNHS C202

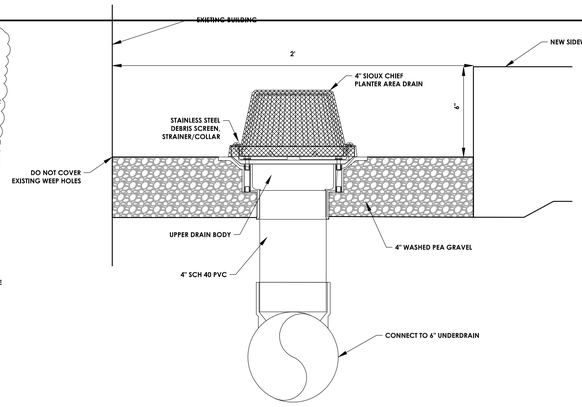
CONSTRUCTION DOCUMENTS





CB-5 FLOW SPLITTER DETAIL

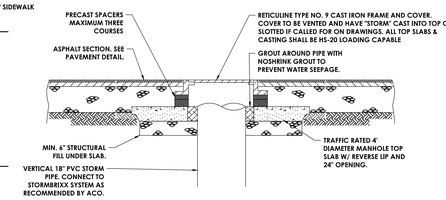
N.T.S.



1

4" PLANTER AREA DRAIN

N.T.S.



STORM CHAMBER ACCESS DETAIL

N.T.S.

CULTEC RECHARGER® 360HD PRODUCT SPECIFICATIONS

GENERAL
CULTEC RECHARGER® 360HD CHAMBERS ARE DESIGNED FOR UNDERGROUND STORMWATER MANAGEMENT. THE CHAMBERS MAY BE USED FOR RETENTION, RECHARGING, DETENTION OR CONTROLLING THE FLOW OF ON-SITE STORMWATER RUNOFF.

CHAMBER PARAMETERS
1. THE CHAMBERS SHALL BE MANUFACTURED IN THE U.S.A. OR CANADA BY CULTEC, INC. OF BROOKFIELD, CT. (203-775-4416 OR 1-800-428-5832)
2. THE CHAMBERS SHALL BE DESIGNED AND TESTED IN ACCORDANCE WITH ASTM F2787 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS", THE LOAD CONFIGURATION SHALL INCLUDE:
   A. INSTANTANEOUS AASHTO DESIGN TRUCK LIVE LOAD AT MINIMUM COVER
   B. MAXIMUM PERMANENT (50-YEAR) COVER LOAD
   C. 1-WEEK PARKED AASHTO DESIGN TRUCK LOAD
3. THE CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F3430-20 "STANDARD SPECIFICATION FOR CELLULAR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS",
4. THE INSTALLED CHAMBER SYSTEM SHALL PROVIDE RESISTANCE TO THE LOADS AND LOAD FACTORS AS DEFINED IN THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS SECTION 12.12, WHEN INSTALLED ACCORDING TO CULTEC'S RECOMMENDED INSTALLATION INSTRUCTIONS. THE STRUCTURAL DESIGN OF THE CHAMBERS SHALL INCLUDE THE FOLLOWING:
   A. THE CREEP MODULUS SHALL BE 50-YEAR AS SPECIFIED IN ASTM F3430
   B. THE MINIMUM SAFETY FACTOR FOR LIVE LOADS SHALL BE 1.75
   C. THE MINIMUM SAFETY FACTOR FOR DEAD LOADS SHALL BE 1.95
5. THE CHAMBER SHALL BE STRUCTURAL FOAM INJECTION MOLDED OF BLUE VIRGIN HIGH MOLECULAR WEIGHT IMPACT-MODIFIED POLYPROPYLENE.
6. THE CHAMBER SHALL BE ARCHED IN SHAPE.
7. THE CHAMBER SHALL BE OPEN-BOTTOMED.
8. THE CHAMBER SHALL BE JOINED USING AN INTERLOCKING OVERLAPPING RIB METHOD. CONNECTIONS MUST BE FULLY SHOULDERED OVERLAPPING RIBS, HAVING NO SEPARATE COUPLINGS.
9. THE NOMINAL CHAMBER DIMENSIONS OF THE CULTEC RECHARGER® 360HD SHALL BE 36 INCHES (915 mm) TALL, 60 INCHES (1525 mm) WIDE AND 50 INCHES (1275 mm) LONG. THE INSTALLED LENGTH OF A JOINED RECHARGER® 360HD SHALL BE 3.67 FEET (1.12 m).
10. MULTIPLE CHAMBERS MAY BE CONNECTED TO FORM DIFFERENT LENGTH ROWS. EACH ROW SHALL BEGIN AND END WITH A SEPARATELY FORMED CULTEC RECHARGER® 360HD END CAP. MAXIMUM INLET OPENING ON THE END CAP IS 24 INCH (600 mm) HDPE OR 30 INCH (750mm) PVC.
11. THE CHAMBER SHALL HAVE TWO SIDE PORTALS TO ACCEPT CULTEC HVLV™ FC-48 FEED CONNECTORS TO CREATE AN INTERNAL MANIFOLD. MAXIMUM ALLOWABLE PIPE SIZE IN THE SIDE PORTAL IS 10 INCH (250mm) HDPE OR 12 INCH (300mm) PVC.
12. THE NOMINAL CHAMBER DIMENSIONS OF THE CULTEC HVLV™ FC-48 FEED CONNECTOR SHALL BE 12 INCHES (305 mm) TALL, 16 INCHES (406 mm) WIDE AND 49 INCHES (1245 mm) LONG.
13. THE NOMINAL STORAGE VOLUME OF THE RECHARGER® 360HD CHAMBER SHALL BE 10.0 FT³ / FT (.928 m³ / m) - WITHOUT STONE. THE NOMINAL STORAGE VOLUME OF A JOINED RECHARGER® 360HD SHALL BE 36.66 FT³ / UNIT (1.038 m³ / UNIT) - WITHOUT STONE.
14. THE NOMINAL STORAGE VOLUME OF THE HVLV™ FC-48 FEED CONNECTOR SHALL BE 0.913 FT³ / FT (0.085 m³ / m) - WITHOUT STONE.
15. THE RECHARGER® 360HD CHAMBER SHALL HAVE 7 CORRUGATIONS.
16. THE CHAMBER SHALL BE MANUFACTURED IN A FACILITY EMPLOYING CULTEC'S QUALITY CONTROL AND ASSURANCE PROCEDURES.
17. MAXIMUM ALLOWABLE COVER OVER THE TOP OF THE CHAMBER SHALL BE 12.0 FEET (3.66 m).

END CAP PARAMETERS
1. THE CULTEC RECHARGER® 360HD END CAP (REFERRED TO AS 'END CAP') SHALL BE MANUFACTURED IN THE U.S.A. OR CANADA BY CULTEC, INC. OF BROOKFIELD, CT. (203-775-4416 OR 1-800-428-5832)
2. THE END CAP SHALL BE STRUCTURAL FOAM INJECTION MOLDED OF BLUE VIRGIN HIGH MOLECULAR WEIGHT IMPACT-MODIFIED POLYPROPYLENE.
3. THE END CAP SHALL BE ARCHED IN SHAPE.
4. THE END CAP SHALL BE OPEN-BOTTOMED.
5. THE END CAP SHALL BE JOINED AT THE BEGINNING AND END OF EACH ROW OF CHAMBERS USING AN INTERLOCKING OVERLAPPING RIB METHOD. CONNECTIONS MUST BE FULLY SHOULDERED OVERLAPPING RIBS, HAVING NO SEPARATE COUPLINGS.
6. THE END CAP SHALL HAVE 5 CORRUGATIONS.
7. THE NOMINAL DIMENSIONS OF THE END CAP SHALL BE 36.5 INCHES (927 mm) TALL, 60 INCHES (1525 mm) WIDE AND 18 INCHES (458 mm) LONG. WHEN JOINED WITH A RECHARGER 360HD CHAMBER, THE INSTALLED LENGTH OF THE END CAP SHALL BE 15 INCHES (381 mm).
8. THE NOMINAL STORAGE VOLUME OF THE END CAP SHALL BE 5.17 FT³ / FT (0.48 m³ / m) - WITHOUT STONE. THE NOMINAL STORAGE VOLUME OF AN INTERLOCKED END CAP SHALL BE 6.46 FT³ / UNIT (0.183 m³ / UNIT) - WITHOUT STONE.
9. MAXIMUM INLET OPENING ON THE END CAP IS 24 INCH (600 mm) HDPE OR 30 INCH (750mm) PVC.
10. THE CHAMBER SHALL BE MANUFACTURED IN A FACILITY EMPLOYING CULTEC'S QUALITY CONTROL AND ASSURANCE PROCEDURES
11. THE END CAP SHALL PROVIDE RESISTANCE TO THE LOADS AND LOAD FACTORS AS DEFINED IN THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS SECTION 12.12.

CULTEC HVLV FC-48 FEED CONNECTOR PRODUCT SPECIFICATIONS

GENERAL
CULTEC HVLV FC-48 FEED CONNECTORS ARE DESIGNED TO CREATE AN INTERNAL MANIFOLD FOR CULTEC RECHARGER MODEL 360HD STORMWATER CHAMBERS.

FEED CONNECTOR PARAMETERS
1. THE FEED CONNECTOR SHALL BE MANUFACTURED BY CULTEC, INC. OF BROOKFIELD, CT. (203-775-4416 OR 1-800-428-5832)
2. THE FEED CONNECTOR SHALL BE VACUUM THERMOFORMED OF BLACK HIGH MOLECULAR WEIGHT HIGH DENSITY POLYETHYLENE (HMWHDPE).
3. THE FEED CONNECTOR SHALL BE ARCHED IN SHAPE.
4. THE FEED CONNECTOR SHALL BE OPEN-BOTTOMED.
5. THE NOMINAL DIMENSIONS OF THE CULTEC HVLV FC-48 FEED CONNECTOR SHALL BE 12 INCHES (305 mm) TALL, 16 INCHES (406 mm) WIDE AND 49 INCHES (1245 mm) LONG.
6. THE NOMINAL STORAGE VOLUME OF THE HVLV FC-48 FEED CONNECTOR SHALL BE 0.913 FT³ / FT (0.085 m³ / m) - WITHOUT STONE.
7. THE HVLV FC-48 FEED CONNECTOR SHALL HAVE 4 CORRUGATIONS.
8. THE HVLV FC-48 FEED CONNECTOR MUST BE FORMED AS A WHOLE UNIT HAVING TWO OPEN END WALLS AND HAVING NO SEPARATE END PLATES OR SEPARATE END WALLS. THE UNIT SHALL FIT INTO THE SIDE PORTALS OF THE CULTEC RECHARGER STORMWATER CHAMBER AND ACT AS CROSS FEED CONNECTIONS CREATING AN INTERNAL MANIFOLD.
9. THE FEED CONNECTOR SHALL BE DESIGNED TO WITHSTAND AASHTO HS-25 DEFINED LOADS WHEN INSTALLED ACCORDING TO CULTEC'S RECOMMENDED INSTALLATION INSTRUCTIONS.
10. THE FEED CONNECTOR SHALL BE MANUFACTURED IN AN ISO 9001:2008 CERTIFIED FACILITY.

CULTEC NO. 410™ NON-WOVEN GEOTEXTILE
CULTEC NO. 410™ NON-WOVEN GEOTEXTILE MAY BE USED WITH CULTEC CONTACTOR® AND RECHARGER® STORMWATER INSTALLATIONS TO PROVIDE A BARRIER THAT PREVENTS SOIL INTRUSION INTO THE STONE.

GEOTEXTILE PARAMETERS
1. THE GEOTEXTILE SHALL BE PROVIDED BY CULTEC, INC. OF BROOKFIELD, CT. (203-775-4416 OR 1-800-428-5832)
2. THE GEOTEXTILE SHALL BE BLACK IN APPEARANCE.
3. THE GEOTEXTILE SHALL HAVE A TYPICAL WEIGHT OF 4.5 OZ/SY (142 G/M).
4. THE GEOTEXTILE SHALL HAVE A TENSILE STRENGTH VALUE OF 120 LBS (533 N) PER ASTM D4632 TESTING METHOD.
5. THE GEOTEXTILE SHALL HAVE AN ELONGATION @ BREAK VALUE OF 50% PER ASTM D4632 TESTING METHOD.
6. THE GEOTEXTILE SHALL HAVE A MULLEN BURST VALUE OF 225 PSI (1551 KPA) PER ASTM D3786 TESTING METHOD.
7. THE GEOTEXTILE SHALL HAVE A PUNCTURE STRENGTH VALUE OF 65 LBS (289 N) PER ASTM D4833 TESTING METHOD.
8. THE GEOTEXTILE SHALL HAVE A CBR PUNCTURE VALUE OF 340 LBS (1513 N) PER ASTM D6241 TESTING METHOD.
9. THE GEOTEXTILE SHALL HAVE A TRAPEZOID TEAR VALUE OF 50 LBS (222 N) PER ASTM D4533 TESTING METHOD.
10. THE GEOTEXTILE SHALL HAVE A AOS VALUE OF 70 U.S. SIEVE (0.212 MM) PER ASTM D4751 TESTING METHOD.
11. THE GEOTEXTILE SHALL HAVE A PERMITTIVITY VALUE OF 1.7 SEC-1 PER ASTM D4491 TESTING METHOD.
12. THE GEOTEXTILE SHALL HAVE A WATER FLOW RATE VALUE OF 135 GAL/MIN/SF (5500 L/MIN/SM) PER ASTM D4491 TESTING METHOD.
13. THE GEOTEXTILE SHALL HAVE A UV STABILITY @ 500 HOURS VALUE OF 70% PER ASTM D4355 TESTING METHOD.

CULTEC NO. 4800™ WOVEN GEOTEXTILE
CULTEC NO. 4800 WOVEN GEOTEXTILE IS DESIGNED AS A UNDERLAYMENT TO PREVENT SCOURING CAUSED BY WATER MOVEMENT WITHIN THE CULTEC CHAMBERS AND FEED CONNECTORS UTILIZING THE CULTEC MANIFOLD FEATURE, IT MAY ALSO BE USED AS A COMPONENT OF THE CULTEC SEPARATOR ROW TO ACT AS A BARRIER TO PREVENT SOIL/CONTAMINANT INTRUSION INTO THE STONE WHILE ALLOWING FOR MAINTENANCE.

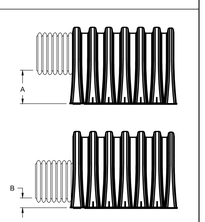
GEOTEXTILE PARAMETERS
1. THE GEOTEXTILE SHALL BE PROVIDED BY CULTEC, INC. OF BROOKFIELD, CT. (203-775-4416 OR 1-800-428-5832)
2. THE GEOTEXTILE SHALL BE BLACK IN APPEARANCE.
3. THE GEOTEXTILE SHALL HAVE A TENSILE STRENGTH OF 550 X 550 LBS (2,448 X 2,448 N) PER ASTM D4632 TESTING METHOD.
4. THE GEOTEXTILE SHALL HAVE A ELONGATION @ BREAK RESISTANCE OF 20 X 20% PER ASTM D4632 TESTING METHOD.
5. THE GEOTEXTILE SHALL HAVE A WIDE WIDTH TENSILE RESISTANCE OF 5,070 X 5,070 LBS/FT (74 X 74 KN/M) PER ASTM D4595 TESTING METHOD.
6. THE GEOTEXTILE SHALL HAVE A WIDE WIDTH TENSILE RESISTANCE @ 2% STRAIN OF 960 X 1,096 LBS/FT (14 X 16 KN/M) PER ASTM D4595 TESTING METHOD.
7. THE GEOTEXTILE SHALL HAVE A WIDE WIDTH TENSILE RESISTANCE @ 5% STRAIN OF 2,740 X 2, 740 LBS/FT (40 X 40 kN/M) PER ASTM D4595 TESTING METHOD.
8. THE GEOTEXTILE SHALL HAVE A WIDE WIDTH TENSILE RESISTANCE @ 10% STRAIN OF 4,800 X 4,800 LBS/FT (70 X 70 KN/M) PER ASTM D4595 TESTING METHOD.
9. THE GEOTEXTILE SHALL HAVE A CBR PUNCTURE RESISTANCE OF 1,700 LBS (7,560 N) PER ASTM D6241 TESTING METHOD.
10. THE GEOTEXTILE SHALL HAVE A TRAPEZOIDAL TEAR RESISTANCE OF 180 X 180 LBS (801 X 801 N) PER ASTM D4533 TESTING METHOD.
11. THE GEOTEXTILE SHALL HAVE AN APPARENT OPENING SIZE OF 40 US STD. SIEVE (0.425 MM) PER ASTM D4751 TESTING METHOD.
12. THE GEOTEXTILE SHALL HAVE A PERMITTIVITY RATING OF 0.15 SEC-1 PER ASTM D4491 TESTING METHOD.
13. THE GEOTEXTILE SHALL HAVE A WATER FLOW RATING OF 11.5 GPM/FT2 (470 LPM/M2) PER ASTM D4491 TESTING METHOD.
14. THE GEOTEXTILE SHALL HAVE A UV RESISTANCE OF 80% @ 500 HRS. PER ASTM D4355 TESTING METHOD.

360HD 1.0

GENERAL NOTES

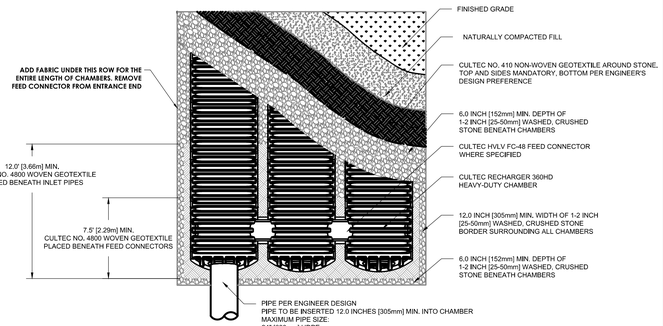
PIPE	A	B
6" [150 mm]	26.00" [660 mm]	0.75" [20 mm]
8" [200 mm]	24.00" [600 mm]	1.00" [25 mm]
10" [250 mm]	21.00" [525 mm]	1.25" [32 mm]
12" [300 mm]	18.00" [450 mm]	1.75" [45 mm]
15" [375 mm]	15.00" [375 mm]	2.00" [50 mm]
18" [450 mm]	12.00" [300 mm]	2.25" [58 mm]
24" [600 mm]	6.00" [150 mm]	2.50" [64 mm]

*THE TYPICAL INVERT TABLE ABOVE IS BASED ON THE INSIDE DIAMETER OF STANDARD CORRUGATED PLASTIC PIPE. THE HEAVY DUTY END CAP HAS PRE-MARKED TRIM LINES FOR PIPE DIAMETERS 12" (300mm), 15" (375mm), 18" (450mm) AND 24" (600mm), PIPES OF ANY SIZE AND MATERIAL UP TO 24" (600mm) MAY BE PLACED AT CUSTOM LOCATIONS AND CUSTOM INVERTS. 30" (750 mm) SMOOTH-WALL SDR-35 PVC PIPE MAY BE USED AT THE BOTTOM OF THE END CAP. THE CROWN OF THE PIPE MUST REMAIN A MINIMUM OF 3" (75mm) FROM THE EDGE OF THE HEAVY DUTY END CAP.



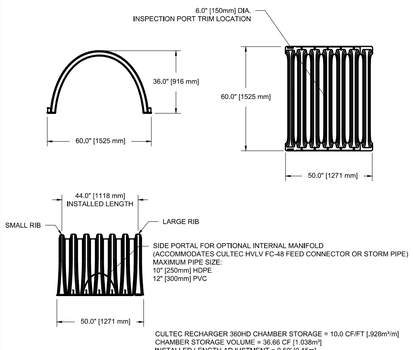
360HD 7.0

CULTEC RECHARGER 360HD TYPICAL PIPE INVERTS



360HD 2.0

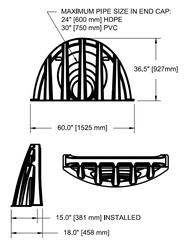
CULTEC RECHARGER 360HD HEAVY DUTY PLAN VIEW



CULTEC RECHARGER 360HD CHAMBER STORAGE = 10.0 CF/FT [.928m³/m]
CHAMBER STORAGE VOLUME = 36.66 CF [1.038m³]
INSTALLED LENGTH ADJUSTMENT = 0.50' [0.15m]
SIDE PORTAL ACCEPTS CULTEC HVLV FC-48 FEED CONNECTOR

360HD 3.0

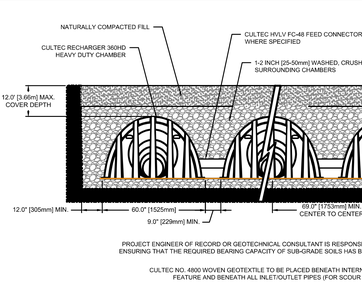
CULTEC RECHARGER 360HD HEAVY DUTY THREE VIEW



CULTEC RECHARGER 360HD END CAP
STORAGE = 5.17 CF/FT [0.48 m³/m]
END CAP STORAGE VOLUME = 6.46 CF [0.183 m3]
INSTALLED LENGTH ADJUSTMENT = 0.25' [0,08 m]

360HD 4.0

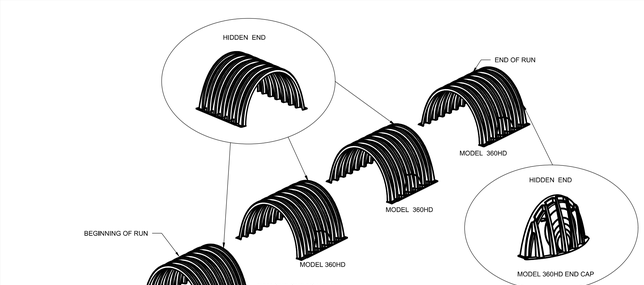
CULTEC RECHARGER 360HD HEAVY DUTY END CAP THREE VIEW



NOTES:
1. THE CHAMBERS SHALL BE DESIGNED AND TESTED IN ACCORDANCE WITH ASTM F2787 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS." THE LOAD CONFIGURATION SHALL INCLUDE:
   1.a. INSTANTANEOUS AASHTO DESIGN TRUCK LIVE LOAD AT MINIMUM COVER
   1.b. MAXIMUM PERMANENT (50-YEAR) COVER LOAD
   1.c. 1-WEEK PARKED AASHTO DESIGN TRUCK LOAD
2. THE CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F3430-20 "STANDARD SPECIFICATION FOR CELLULAR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS"
3. THE INSTALLED CHAMBER SYSTEM SHALL PROVIDE RESISTANCE TO THE LOADS AND LOAD FACTORS AS DEFINED IN THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS SECTION 12.12, WHEN INSTALLED ACCORDING TO CULTEC'S RECOMMENDED INSTALLATION INSTRUCTIONS. THE STRUCTURAL DESIGN OF THE CHAMBERS SHALL INCLUDE THE FOLLOWING:
   3.a. THE CREEP MODULUS SHALL BE 50-YEAR AS SPECIFIED IN ASTM F3430
   3.b. THE MINIMUM SAFETY FACTOR FOR LIVE LOADS SHALL BE 1.75
   3.c. THE MINIMUM SAFETY FACTOR FOR DEAD LOADS SHALL BE 1.95

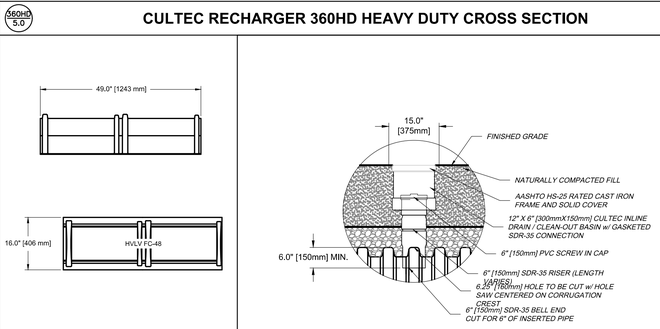
360HD 5.0

CULTEC RECHARGER 360HD HEAVY DUTY CROSS SECTION



360HD 6.0

CULTEC RECHARGER 360HD HEAVY DUTY TYPICAL INTERLOCK



360HD 8.0

CULTEC HVLV FC-48 FEED CONNECTOR THREE VIEW

360HD 9.0

CULTEC INSPECTION PORT - ZOOM DETAIL

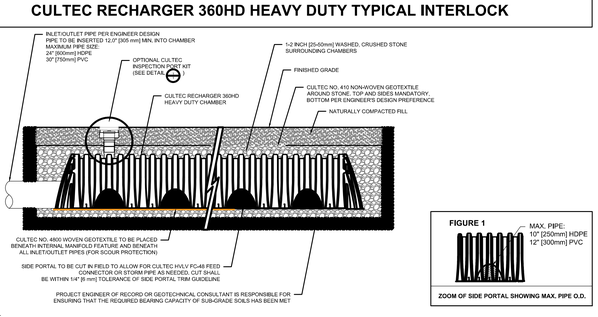


FIGURE 1

ZOOM OF SIDE PORTAL SHOWING MAX. PIPE O.D.

NOTES:
1. THE CHAMBERS SHALL BE DESIGNED AND TESTED IN ACCORDANCE WITH ASTM F2787 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS." THE LOAD CONFIGURATION SHALL INCLUDE:
   1.a. INSTANTANEOUS AASHTO DESIGN TRUCK LIVE LOAD AT MINIMUM COVER
   1.b. MAXIMUM PERMANENT (50-YEAR) COVER LOAD
   1.c. 1-WEEK PARKED AASHTO DESIGN TRUCK LOAD
2. THE CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F3430-20 "STANDARD SPECIFICATION FOR CELLULAR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS"
3. THE INSTALLED CHAMBER SYSTEM SHALL PROVIDE RESISTANCE TO THE LOADS AND LOAD FACTORS AS DEFINED IN THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS SECTION 12.12, WHEN INSTALLED ACCORDING TO CULTEC'S RECOMMENDED INSTALLATION INSTRUCTIONS. THE STRUCTURAL DESIGN OF THE CHAMBERS SHALL INCLUDE THE FOLLOWING:
   3.a. THE CREEP MODULUS SHALL BE 50-YEAR AS SPECIFIED IN ASTM F3430
   3.b. THE MINIMUM SAFETY FACTOR FOR LIVE LOADS SHALL BE 1.75
   3.c. THE MINIMUM SAFETY FACTOR FOR DEAD LOADS SHALL BE 1.95

360HD 10.0

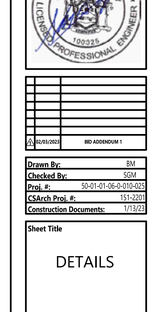
CULTEC INTERNAL MANIFOLD - OPTIONAL INSPECTION PORT DETAIL

CSARCH
19 Front St., Newburgh, New York 12550-7601
845 561 3179 www.csarchpc.com

Consultant

Project Title

CLARKSTOWN CENTRAL SCHOOL DISTRICT
CLARKSTOWN NORTH HIGH SCHOOL
CAPITAL PROJECT PHASE 5



A 02/01/2022	BID ADDENDUM 1

Drawn By:	BM
Checked By:	SGM
Proj. #:	50-01-01-06-0-010-025
CSArch Proj. #:	151-2201
Construction Documents:	1/13/23

Sheet Title

DETAILS

Sheet No.

CNHS
C 203

CONSTRUCTION DOCUMENTS

HORIZONTAL SCALE

40 0 20 40 80

SCALE: 1"=40'

N

LEGEND - SITE:

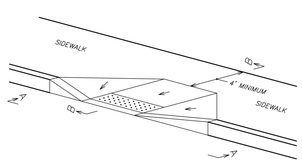
- PROPERTY BOUNDARY
- R.O.W. RIGHT OF WAY
- EXISTING BUILDING
- PROPOSED CONCRETE
- PROPOSED ACCESS RAMP
- PROPOSED PAVEMENT STRIPING
- PROPOSED CURB
- PROPOSED SAW CUT LIMITS

GENERAL NOTES

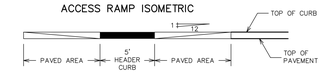
1. THE SANITARY WASTE DISPOSAL SYSTEM SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE STANDARDS OF THE NEW YORK STATE DEPARTMENT OF HEALTH AND THE TOWN OF PERINTON.
2. WATER SERVICE WILL BE INSTALLED IN ACCORDANCE WITH THE RULES AND REGULATIONS OF THE MONROE COUNTY WATER AUTHORITY.
3. THE BUILDING CONSTRUCTION TO BE IN COMPLIANCE WITH THE NEW YORK STATE BUILDING CODE.
4. ANY COST RELATED TO THE RELOCATION OF ANY UTILITIES NECESSITATED BY THIS PROJECT SHALL BE THE RESPONSIBILITY OF THE OWNER OR THOSE REQUESTING THE RELOCATION OF THE UTILITY.
5. ANY AND ALL CULVERT LOCATIONS, SIZES OR TYPES, TO BE APPROVED BY THE TOWN SUPERINTENDENT OF HIGHWAYS.
6. ALL PROPERTY CORNERS TO BE MARKED WITH IRON PINS.
7. THIS SUBDIVISION SHALL COMPLY WITH THE APPLICABLE REQUIREMENTS OF THE COUNTY MONUMENTATION LAW.
8. THE SUBDIVISION IS LESS THAN 1500 FEET FROM THE NEAREST CONTROL MONUMENT AND IS THEREFORE TIED INTO THE MONUMENTATION NETWORK.
9. THIS SUBDIVISION SHALL COMPLY WITH ANY COUNTY OR STATE AGENCIES HAVING JURISDICTION.
10. ALL CONSTRUCTION WILL BE IN ACCORDANCE WITH THE DESIGN CRITERIA AND CONSTRUCTION SPECIFICATIONS FOR LAND DEVELOPMENT FOR THE TOWN OF PERINTON DATED THE MOST CURRENT REVISION.

DEMOLITION NOTES:

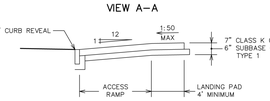
1. CONTRACTOR IS RESPONSIBLE TO CALL DIG SAFE 811 PRIOR TO BEGINNING DEMOLITION.
2. WITHIN LIMIT LINES, ALL AT GRADE UTILITIES SUCH AS TRANSFORMERS, GENERATORS, HVAC UNITS, THE UNITS CONCRETE PAD AND ANY FENCING THAT SURROUNDS THE UNIT, TO BE REMOVED.
3. PRIOR TO ANY DEMOLITION TAKING PLACE, CONTRACTOR TO VERIFY LOCATION AND DEPTH OF ALL UTILITIES WITHIN THE WORK AREA OR THOSE EXPECTED TO BE AFFECTED BY NEW WORK, AND SUBSURFACE FEATURES.
4. CONTRACTOR TO COORDINATE ALL UTILITY SHUT DOWNS, RELOCATIONS, SERVICE INSTALLATIONS WITH THE LOCAL UTILITY COMPANIES.
5. CONTRACTOR IS RESPONSIBLE FOR THE REMOVAL OF ALL DEMOLISHED MATERIAL IN ACCORDANCE WITH ALL LOCAL, STATE AND FEDERAL REGULATIONS.
6. ALL EXISTING FEATURES TO BE REMOVED ARE NOT SHOWN ON SUBSEQUENT PLANS FOR CLARITY.
7. CONTRACTOR SHALL PROTECT ALL EXISTING FEATURES TO REMAIN. DAMAGE TO EXISTING FEATURES TO REMAIN SHALL BE REPAIRED AT THE CONTRACTORS EXPENSE.
8. ALL SURFACES THAT ARE DISTURBED DUE TO UTILITY CONSTRUCTION, OUTSIDE OF THE MAJOR WORK AREAS, ARE TO BE RESTORED TO PRE-CONSTRUCTION CONDITION, IN ACCORDANCE WITH THE ASPHALT AND CONCRETE SECTION DETAILS INCLUDED IN THESE PLANS. LAWN AREAS ARE TO BE RE-ESTABLISHED WITH 4 INCHES OF TOPSOIL (MINIMUM) AND HYDROSEED.
9. ANY MATERIALS CONTAINING ASBESTOS SHALL BE REMOVED AND DISPOSED OF IN ACCORDANCE WITH FEDERAL, STATE AND LOCAL REGULATIONS. NOTE THIS MAY INCLUDE UNDERGROUND UTILITIES.
10. ALL UTILITIES NOT SLATED FOR DEMOLITION ARE TO REMAIN FUNCTIONAL UPON COMPLETION OF DEMOLITION. THIS INCLUDES BYPASS PUMPING, IF NECESSARY
11. EXISTING UTILITIES THAT ARE PROPOSED TO BE REMOVED, UNLESS OTHERWISE INDICATED, SHALL BE EXCAVATED, UTILITY MATERIAL REMOVED, AND DISPOSED OF IN ACCORDANCE WITH ALL APPLICABLE SPECIFICATIONS. ALL TRENCHES SHALL BE BACKFILLED WITH GRANULAR FILL COMPACTED IN 12" LIFTS TO 95% MODIFIED PROCTOR TEST. ALL DISTURBED AREAS SHALL BE RESTORED IN KIND IN ACCORDANCE WITH THE DETAILS IN THESE PLANS AND AT A MINIMUM TO THEIR ORIGINAL STATE.
12. AREAS OF ASPHALT AND CONCRETE REMOVAL SHALL BE SAWCUT WITH A NEAT STRAIGHT LINE AT ALL REMOVAL LIMITS.
13. CONTRACTOR RESPONSIBLE FOR OBTAIN ALL DEMOLITION PERMITS AND INCLUDE ALL FEES ASSOCIATED WITH THOSE PERMITS, IN HIS BID.
14. IF ANY ENVIRONMENTAL CONDITIONS OR ISSUES, NOT PREVIOUSLY IDENTIFIED, ARE ENCOUNTERED DURING DEMOLITION, THE OWNER AND THE CONTRACTORS(S) SHALL IMMEDIATELY NOTIFY THE TOWN, MONROE COUNTY HEALTH DEPARTMENT AND NYSDEC BEFORE CONTINUING THE DEMOLITION PROCESS.
15. ALL MATERIALS SHALL BE RECYCLED, WHEN APPROPRIATE.
16. THE CONTRACTOR SHALL OBTAIN ALL SEWER PERMITS PRIOR TO DEMOLITION.
17. ALL SPOIL MATERIALS FROM DEMOLITION OR EARTHWORK, SHALL BE REMOVED FROM THE SITE AND DISPOSED OF AT THE CONTRACTORS EXPENSE.
18. ALL EXISTING STRUCTURES THAT ARE ABANDONED IN PLACE, SHALL BE REMOVED TO A DEPTH OF 2 FEET BELOW FINISHED GRADE. STRUCTURES SHALL BE FILLED WITH CRUSHED STONE, (MEETING NYSDOT STANDARD SPECIFICATION SECTION 304) COMPACTED IN 12" LIFTS TO 95% MODIFIED PROCTOR TEST.



ACCESS RAMP ISOMETRIC



VIEW A–A

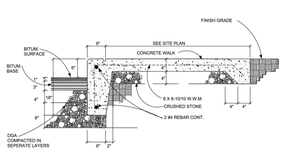


SECTION B–B

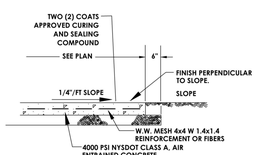
NOTES:

1. 1:12 IS MAXIMUM SLOPE OF ACCESS RAMP AND SIDE FLARE IN PAVED AREA.
2. SURFACE OF ACCESS RAMP IS TO BE STABLE, FIRM AND SLIP–RESISTANT. TEXTURE SURFACE WITH COARSE BROOM RUNNING TRANSVERSE TO SLOPE OF ACCESS RAMP.
3. ENTIRE AREA OF ACCESS RAMP AND LANDING PAD IS TO BE 7 INCH THICK CONCRETE.

SIDEWALK RAMP DETAIL
N.T.S.

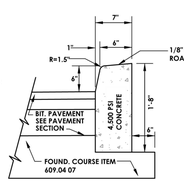


CURB WITH INTEGRAL SIDEWALK DETAIL
N.T.S.

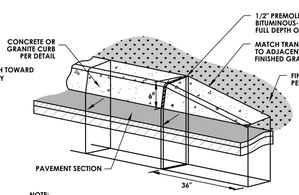


NOTE: IF APPLICABLE, CONCRETE SIDEWALKS THROUGH DRIVEWAY SHALL BE INCREASED TO A 6" THICKNESS.

TYPICAL SIDEWALK DETAIL
N.T.S.



CONCRETE CURB DETAIL
N.T.S.



NOTE:
1. TRANSITION CURB LENGTHS SHALL BE 36" UNLESS OTHERWISE INDICATED IN THE DRAWINGS.

TRANSITION CURB TO GRADE
N.T.S.

MODIFIED INTERNATIONAL SYMBOL OF ACCESS
N.T.S.

19 Front St - Newburgh, New York 12550-7607
845 561 3179 www.csarchpc.com
CSARCH

Consultant

Project Title

CLARKSTOWN CENTRAL SCHOOL DISTRICT
FELIX FESTA MIDDLE SCHOOL
CAPITAL PROJECT PHASE 5

#	DATE	DESCRIPTION

Drawn By:	Author
Checked By:	Checker
Proj. #:	50-01-01-06-0-012-034
CSArch Proj. #:	151-2201
Construction Documents:	5/20/22

Sheet Title

SITE PLAN

Sheet No.

FFMS
101

CONSTRUCTION DOCUMENTS