SITE PLAN APPROVAL

NEW BRANCH OFFICE FOR

AmeriCU CREDIT UNION

871 ARSENAL STREET

CITY of WATERTOWN

JEFFERSON COUNTY, NEW YORK

MAY 11, 2012

BID SET - // 2012

ISSUE FOR CONSTRUCTION - // 2012

DRAWING LIST

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LOCATION MAP

DEVELOPER:

CANAL PROPERTIES II INC., LLC
125 HIGH ROCK AVENUE
SARATOGA SPRINGS NY, 12866
(518) 306-3747
CONTACT: DEVIN DAL POS

CONSULTANTS:

Brian Manthey architect
1919 Patterson Rd Marietta, New York 13110
Phone: 315.636.8436 Fax: 315.636.8451
E-mail: bmanthey@tncny.rr.com
MEMBER: AMERICAN INSTITUTE of ARCHITECTS

KEPLINGER FREEMAN ASSOCIATES
LANDSCAPE ARCHITECTURE & LAND PLANNING
6320 FLY ROAD, SUITE 201, EAST SYRACUSE, NEW YORK 13057
PHONE: (315) 445-7980 FAX: (315) 445-7981

RESOURCE LIST

PLANNING/ZONING
CITY OF WATERTOWN PLANNING & ZONING
245 WASHINGTON STREET
3rd FLOOR
WATERTOWN, NY 13601
(315) 785-7724
CONTACT: KEN MIX

WATER
245 WASHINGTON STREET
2rd FLOOR
WATERTOWN, NY 13601
(315) 785-7845
CONTACT: MICHAEL SLIGAR

GAS
NATIONAL GRID
300 ERIE BLVD. WEST
SYRACUSE, NY 13202
(800) 664-6729
(800) 892-2345 - EMERGENCY

HEALTH DEPARTMENT
531 MEADE STREET
WATERTOWN, NEW YORK 130601
PHONE: (315) 786-3770
CONTACT: JEAN BILOW

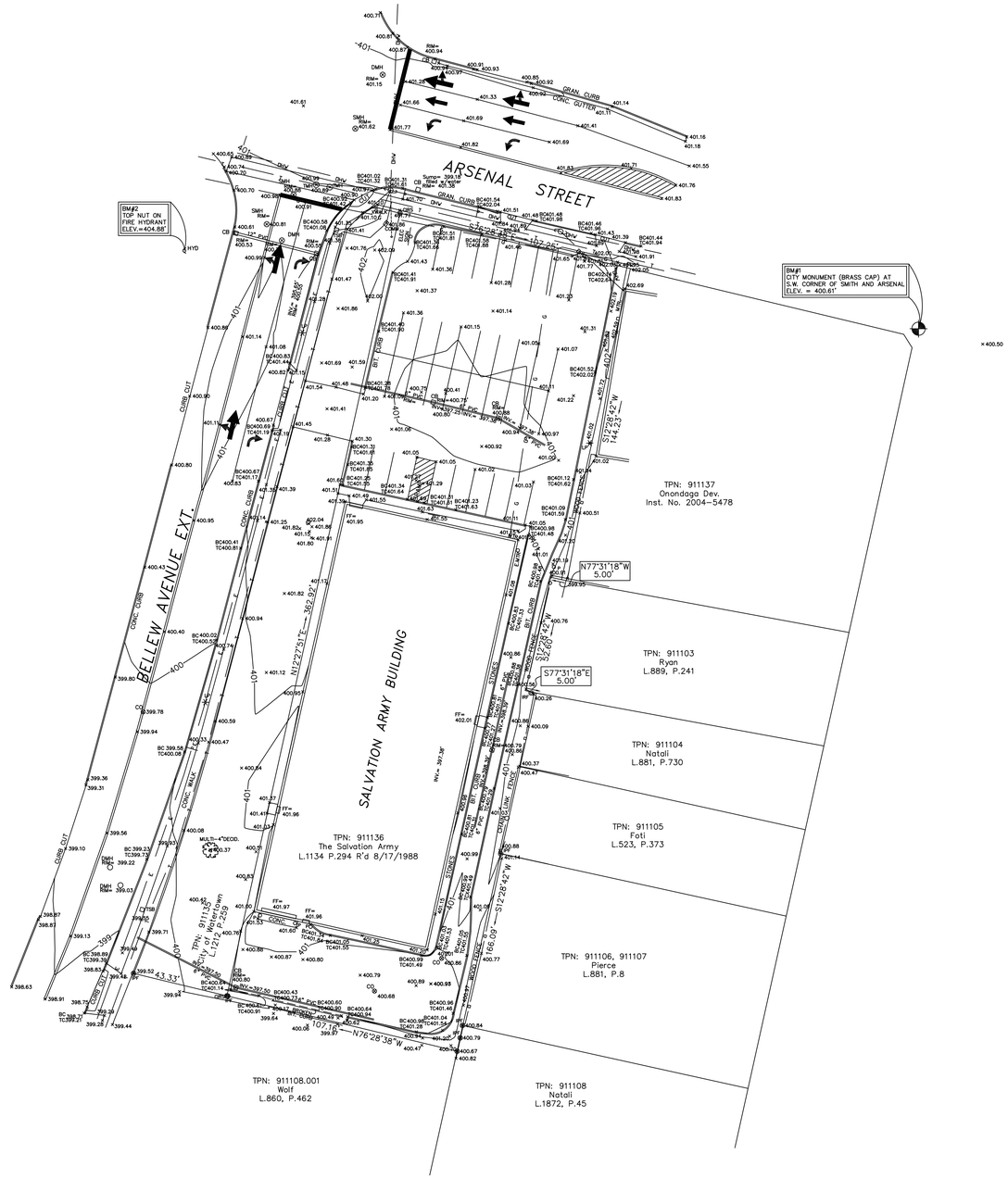
ELECTRIC
NATIONAL GRID
300 ERIE BLVD. WEST
SYRACUSE, NY 13202
(800) 664-6729
(800) 892-2345 - EMERGENCY

FIRE PREVENTION
224 SOUTH MASSEY STREET
WATERTOWN, NY 13601
Phone: (315) 785-7800
CONTACT: DALE HERMAN

ENGINEERING
CITY HALL
245 WASHINGTON STREET., ROOM. 305
WATERTOWN, NY 13601
PHONE: (315) 785-7740
CONTACT:
JAMES HAUK

AmeriCU - Approved for Construction Date

PLANNING BOARD CHAIRMAN DATE



LEGEND

L.A.	LANDSCAPED AREA	SB-20	SOIL BORING
	POST	MB	MAIL BOX
	SIGN	TMH	TELEPHONE MANHOLE
IPF	IRON PIPE FOUND	TP	TELEPHONE PEDESTAL
MON	STONE MONUMENT FOUND	TRANS	TRANSFORMER
CIRF	CAPPED IRON ROD FOUND	TSP	TRAFFIC SIGNAL POLE
IRF	IRON ROD FOUND	TSB	TRAFFIC SIGNAL BOX
CIRS	CAPPED IRON ROD SET	EMH	ELECTRIC MANHOLE
CB	CATCH BASIN		UTILITY POLE
DMH	DRAIN MANHOLE	LP	LIGHT POLE
SMH	SANITARY MANHOLE	HYD	HYDRANT
CO	CLEANOUT	WV	WATER VALVE
GV	GAS VALVE	WMH	WATER MANHOLE
OHV	OVERHEAD WIRES		
FO	UNDERGROUND FIBER OPTIC		
T	UNDERGROUND TELEPHONE		
G	UNDERGROUND GAS		
W	UNDERGROUND WATER		
E	UNDERGROUND ELECTRIC		
	OVERHEAD ROOF		

MAP NOTES:

1) NORTH ORIENTATION IS PER MAGNETIC OBSERVATION TAKEN ON 4/13/2012.

2) VERTICAL DATUM IS NAVD 88 AND WAS DERIVED USING GPS.

3) THIS SURVEY WAS PREPARED WITHOUT THE BENEFIT OF AN ABSTRACT OR UP TO DATE TITLE REPORT AND IS THEREFORE SUBJECT TO ANY EASEMENTS, RESTRICTIONS, COVENANTS OR ANY STATEMENT OF FACTS THAT SUCH DOCUMENTS MAY DISCLOSE.

4) UNDERGROUND FACILITIES, STRUCTURES AND UTILITIES HAVE BEEN PLOTTED FROM DATA OBTAINED BY FIELD SURVEY, PREVIOUS MAPS AND RECORDS, AND FROM PARCEL TESTIMONY MADE BY OWNER REPRESENTATIVE AND UTILITY COMPANY PERSONNEL. THERE MAY BE OTHER UNDERGROUND UTILITIES, THE EXISTENCE OF WHICH ARE NOT KNOWN TO THE UNDERSIGNED. SIZE AND LOCATION OF ALL UNDERGROUND UTILITIES AND STRUCTURES MUST BE VERIFIED BY THE APPROPRIATE AUTHORITIES PRIOR TO ANY CONSTRUCTION.

DEED REFERENCE:

Being that parcel of land conveyed by Anthony J. Marra to The Salvation Army by warranty deed recorded in the Jefferson County Clerk's Office in Liber 1134 at page 294 dated August 18, 1988.

ABSTRACT REFERENCE:

Survey performed without the benefit of an Abstract of Title.

BAR SCALE

30 0 15 30 60

1 inch = 30 ft.

UTILITY INFORMATION:

SERVICE	OPERATING AUTHORITY
ELECTRIC	NATIONAL GRID/CENTRAL
WATER	CITY OF WATERTOWN
TELEPHONE	VERIZON/SYRACUSE A1
SANITARY	CITY OF WATERTOWN
GAS	NATIONAL GRID/CENTRAL

MAGNETIC

MAP showing the BOUNDARY AND TOPOGRAPHIC SURVEY of THE SALVATION ARMY property, 913 Arsenal Street, City of Watertown, County of Jefferson, State of New York

T.P.N. –911135,911136
Project No. – 12013
Scale – 1"=30 feet
Survey Date –4/13/12
Map Date – 4/18/12
Print Date – _____
Checked By – RSM
Revisions –

Survey Prepared By:
MONCRIEF
LAND SURVEYING, P.C.
P.O. Box 249, Lowville, N.Y. 13367
TEL.(315)376–8444 FAX: 376–7556

"Unauthorized alteration or addition to a survey map bearing a licensed land surveyor's seal is a violation of section 7209, sub-division 2, of the New York State Education Law."
"Certifications indicated hereon signify that the original survey was made in the land surveyor's endorsement and shall be considered to be valid this date."
"Certifications indicated hereon signify that this survey was prepared in accordance with the existing code of practice for land surveys adopted by the New York State Association of Professional Land Surveyors. Said certifications shall run only to the persons for whom the survey was prepared, and to the title company, governmental agency and lending institution listed hereon and to the assignees of the lending institution."
"Certifications are not transferrable to additional institutions or subsequent owners."
"The location of underground improvements or environments, if any exist or are shown hereon, is NOT GUARANTEED."
"This survey opinion is not valid, and the surveyor assumes no liability if it is used in connection with a "Survey Affidavit" or similar document, statement or mechanism to obtain title insurance."

R. STEPHEN MONCRIEF, JR.
PLS No. 49819

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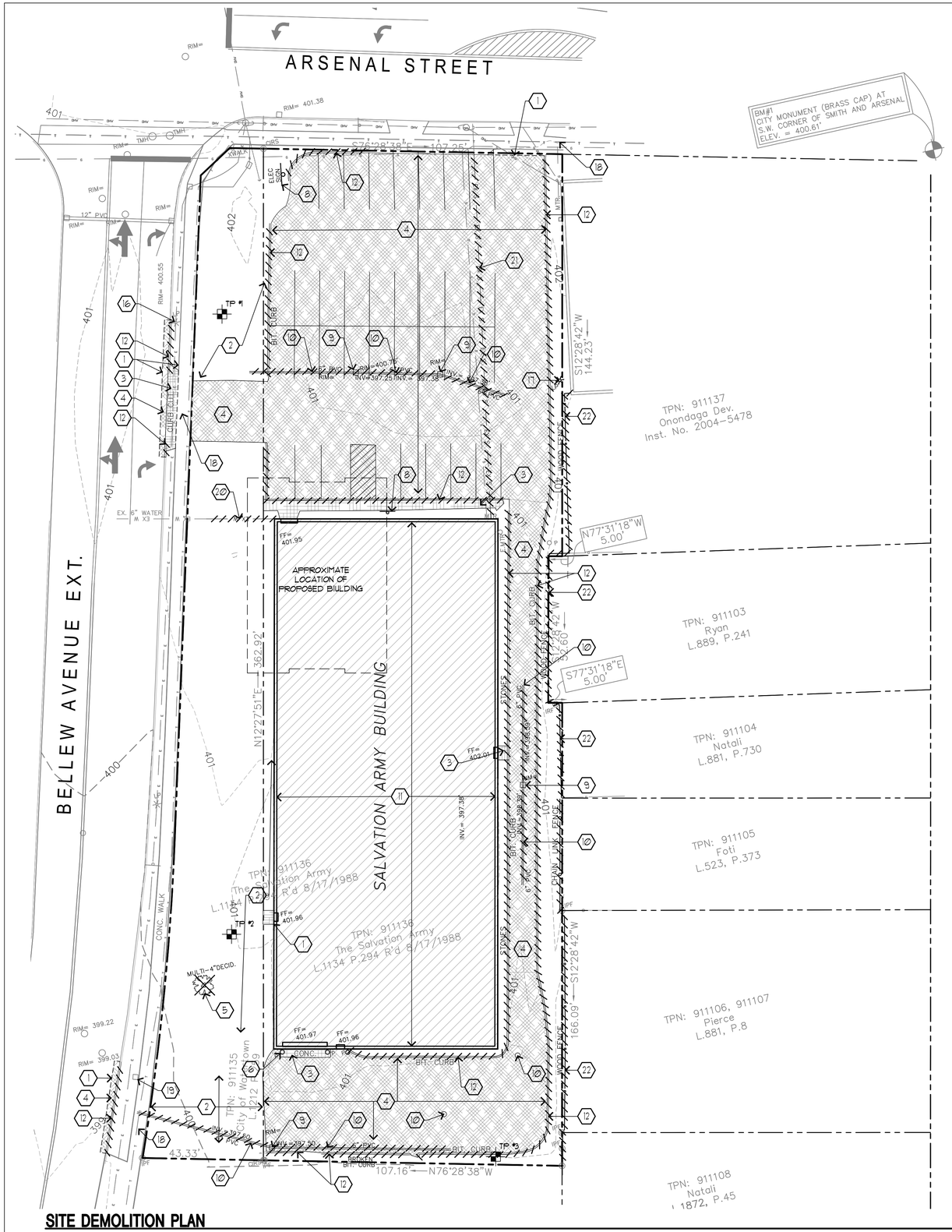
DWG. NAME = 12013-WATERTOWN SALVATION ARMY



SITE DEMOLITION PLAN

GENERAL NOTES

1. TOPOGRAPHIC BOUNDARY SURVEY, INCLUDING PROPERTY LINES, LEGAL DESCRIPTION, EXISTING UTILITIES, SITE TOPOGRAPHY WITH SPOT ELEVATIONS, OUTSTANDING PHYSICAL FEATURES AND EXISTING STRUCTURE LOCATIONS WAS PROVIDED BY THE FOLLOWING COMPANY, AS A CONTRACTOR TO THE DEVELOPER:

TOPOGRAPHY & BOUNDARY: MONCRIEF LAND SURVEYORING P.C.
P.O. BOX 249, LOUIEVILLE, NY 13367
PHONE: (315) 376-8444
CONTACT: STEPHEN MONCRIEF

OWNER AND ARCHITECT DO NOT CONFIRM THE COMPLETENESS OR ACCURACY OF SUCH INFORMATION. CONTRACTOR IS RESPONSIBLE FOR THOROUGH EXAMINATION AND VERIFICATION OF ALL EXISTING SURFACE AND SUBSURFACE CONDITIONS AFFECTING THE NATURE, SCOPE, COMPLEXITY AND COST OF THE CONTRACT WORK. ADDITIONAL INFORMATION ON EXISTING CONDITIONS HAS BEEN ADDED TO THE DRAWINGS BASED ON THE LANDSCAPE ARCHITECT'S OBSERVATIONS BUT IS NOT INTENDED TO AND DOES NOT ALTER THE SURVEY INFORMATION. REFER TO SURVEY NOTES FOR ADDITIONAL INFORMATION.

2. SAW CUT FOR PAVING REMOVALS, EXTEND REMOVAL LINES TO INCLUDE ANY ADJOINING BROKEN OR DETERIORATING PAVING. CAREFULLY REMOVE, STOCKPILE AND PROTECT ANY ITEMS NOTED FOR SALVAGE. ALL DEMOLITION RUBBLE, DEBRIS AND EXCESS SOILS TO BE PROMPTLY REMOVED FROM SITE. STRIP AND STOCKPILE SUFFICIENT EXISTING ORGANIC TOPSOILS FOR RESPREADING AS REQUIRED ON DISTURBED AND REGRADED AREAS TO BE ESTABLISHED IN LAWN AND FOR REPAIR OF DISTURBED EXISTING LAWNS TO REMAIN. STOCKPILE ALL MATERIALS IN APPROVED LOCATIONS WITHOUT INTERFERING WITH OTHER CONTRACTOR WORK, SCHOOL TRAFFIC OR DRAINAGE.

3. ALL FILL/BACKFILL OF EXCAVATIONS AND VOIDS RESULTING FROM REMOVALS AND RELATED WORK UNDER NEW OR REPLACEMENT PAVING AREAS SHALL ONLY BE COARSE AGGREGATE FILL OR SUBBASE COURSE MATERIAL THOROUGHLY COMPACTED.

4. PROTECT ALL FACILITIES AND IMPROVEMENTS ON AND ADJOINING THE PROPERTY WHICH ARE NOT SPECIFICALLY IDENTIFIED FOR REMOVAL. VERIFY LOCATIONS AND DEPTHS OF ALL SUBSURFACE UTILITIES TO REMAIN PRIOR TO ANY ADJACENT REMOVAL AND EXCAVATION WORK.

5. ALL EXISTING FEATURES ARE TO REMAIN UNLESS OTHERWISE NOTED. IF THE CONTRACTOR DAMAGES ANY OF THE EXISTING ON-SITE FACILITIES TO REMAIN (TREES, PAVEMENTS, UNDERGROUND UTILITIES, STRUCTURES, ETC.) WHETHER SHOWN ON THE PLANS OR NOT, THE CONTRACTOR SHALL REPAIR AND/OR REPLACE SUCH ITEMS AT HIS OWN EXPENSE AND ASSUME ALL RESPONSIBILITY FOR SUCH DAMAGE WITHOUT ANY ADDITIONAL COST TO THE OWNER. REPLACEMENT MATERIAL SHALL BE SAME QUALITY AND QUANTITY AS ORIGINAL.

6. THE CONTRACTOR SHALL CONFIRM EXISTING GRADES AND LOCATIONS OF ALL EXISTING FEATURES WITHIN THE CONTRACT LIMIT AREA. SEE DRAWING L1.2 FOR CONTRACT LIMIT LINE. THE CONTRACTOR SHALL CONTACT THE LANDSCAPE ARCHITECT IMMEDIATELY SHOULD ANY DISCREPANCIES BE FOUND AT (315) 445-7980.

7. ADJUST RIMS OF UTILITY STRUCTURES TO REMAIN WITHIN AREAS OF GRADE CHANGES TO MEET NEW LINES AND GRADES.

8. ALL NON-PAVED AREAS ARE TO BE LAWN UNLESS OTHERWISE NOTED.

9. CONTRACTOR SHALL BLEND NEW WORK SMOOTHLY AND EVENLY WITH EXISTING LINES AND GRADES.

LEGEND

EXISTING	PROPOSED	DESCRIPTION
100		CONTOUR
+377.7		SPOT ELEVATION
	CT/CE	CURB TAPER/END
	TC/BC	TOP/BOTTOM OF CURB
	HP/LP	HIGH / LOW POINT
		GUIDERAIL
		UTILITY POLE
W		WATER LINE
		FIRE HYDRANT
EX ST	ST	STORM PIPE
	UD	UNDERDRAIN
SS		SANITARY PIPE
OH		OVERHEAD ELECTRIC
G		GAS LINE
	ST MH	STORM STRUCTURE
	DW	DRYWELL
	DI	INLET
CB	CB MH	CATCH BASIN/MANHOLE
	CO	CLEAN OUT
		SANITARY MANHOLE
		ASPHALT PARKING PAVEMENT
		CONCRETE PAVEMENT
		OUTLET PROTECTION
		TRAFFIC SIGN
		LIGHT POLE (SEE ELECTRICAL PLANS FOR WIRING)
		CURB
	SF	CURB FLUSH (1" REVEAL UNLESS OTHERWISE NOTED)
		SILT FENCE
		TREE
		SHRUB
	QUANTITY PLANT TYPE	PLANT KEY
TP #		TEST PITS SYMBOL
PT #		PERCOLATION TEST SYMBOL
		ARMORTILE SYMBOL
	W	WATER LINE
	G	GAS LINE
	UE	UNDERGROUND ELECTRIC

EXISTING CONDITIONS & REMOVAL/DEMOLITION NOTES

CLL — CONTRACT LIMIT LINE

1. SAWCUT ASPHALT OR CONCRETE PAVEMENT. SAWCUT ASPHALT IN NEAT STRAIGHT LINE AND SAWCUT CONCRETE PAVEMENT AT NEAREST SCORE JOINT.
2. STRIP EXISTING TOPSOIL AND STOCKPILE FOR REUSE. ENCLOSE STOCKPILE WITH SILT FENCE.
3. REMOVE EXISTING CONCRETE PAVEMENT INCLUDING BASE MATERIAL AND DISPOSE OF OFF SITE.
4. REMOVE EXISTING ASPHALT PAVEMENT INCLUDING BASE MATERIAL AND DISPOSE OF OFF SITE.
5. REMOVE EXISTING TREES AND VEGETATION, INCLUDING STUMPS AND ROOTS AND DISPOSE OF OFF SITE.
6. REMOVE EXISTING BOLLARD AND FOOTING AND DISPOSE OF OFF SITE.
7. REMOVE EXISTING SIGN AND DISPOSE OF OFF SITE.
8. REMOVE EXISTING ELECTRIC SIGN AND FOUNDATION. COORDINATE DISCONNECTION WITH CONSTRUCTION MANAGER.
9. ABANDON EXISTING STORM STRUCTURE IN PLACE. BREAK BOTTOM OF STRUCTURE AND FILL WITH #1/2 CRUSHED STONE.
10. REMOVE/CAP AND ABANDON EXISTING STORM PIPE.
11. REMOVE EXITING STRUCTURE IN ITS ENTIRETY, INCLUDING FOUNDATION.
12. REMOVE EXISTING CURBING AND DISPOSE OF OFF SITE.
13. DISCONNECT EXISTING GAS SERVICE. COORDINATE WITH NATIONAL GRID.
14. DISCONNECT EXISTING ELECTRIC/TELEPHONE/CABLE SERVICE. COORDINATE WITH UTILITY VENDOR.
15. NOTE OMITTED.
16. LIGHT POLE TO REMAIN, PROTECT.
17. REMOVE EXISTING LIGHT POLE AND BASE. COORDINATE REMOVAL WITH ELECTRICAL ENGINEER.
18. EXISTING CONCRETE SIDEWALK TO REMAIN, PROTECT.
19. FIELD ADJUST OR RESET TRAFFIC SIGNAL HANDHOLE AS REQUIRED.
20. DISCONNECT EXISTING WATER SERVICE. COORDINATE WITH OCWA.
21. DISCONNECT EXISTING SANITARY CONNECTION. COORDINATE WITH CITY OF WATERTOWN DPW.
22. DEVELOPER TO CONTACT AND COORDINATE WITH ADJACENT PROPERTY OWNERS THE REMOVAL OF EXISTING WOOD AND CHAIN LINK FENCE. FENCE TO BE REPLACED PER SITE LAYOUT PLAN.

0 10 20 30
SCALE IN FEET

AmeriCU - Approved for Construction Date

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REGISTERED LANDSCAPE ARCHITECT EDWARD GILBERT KEPLINGER 001835 STATE OF NEW YORK

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871 Arsenal Street
Watertown, New York

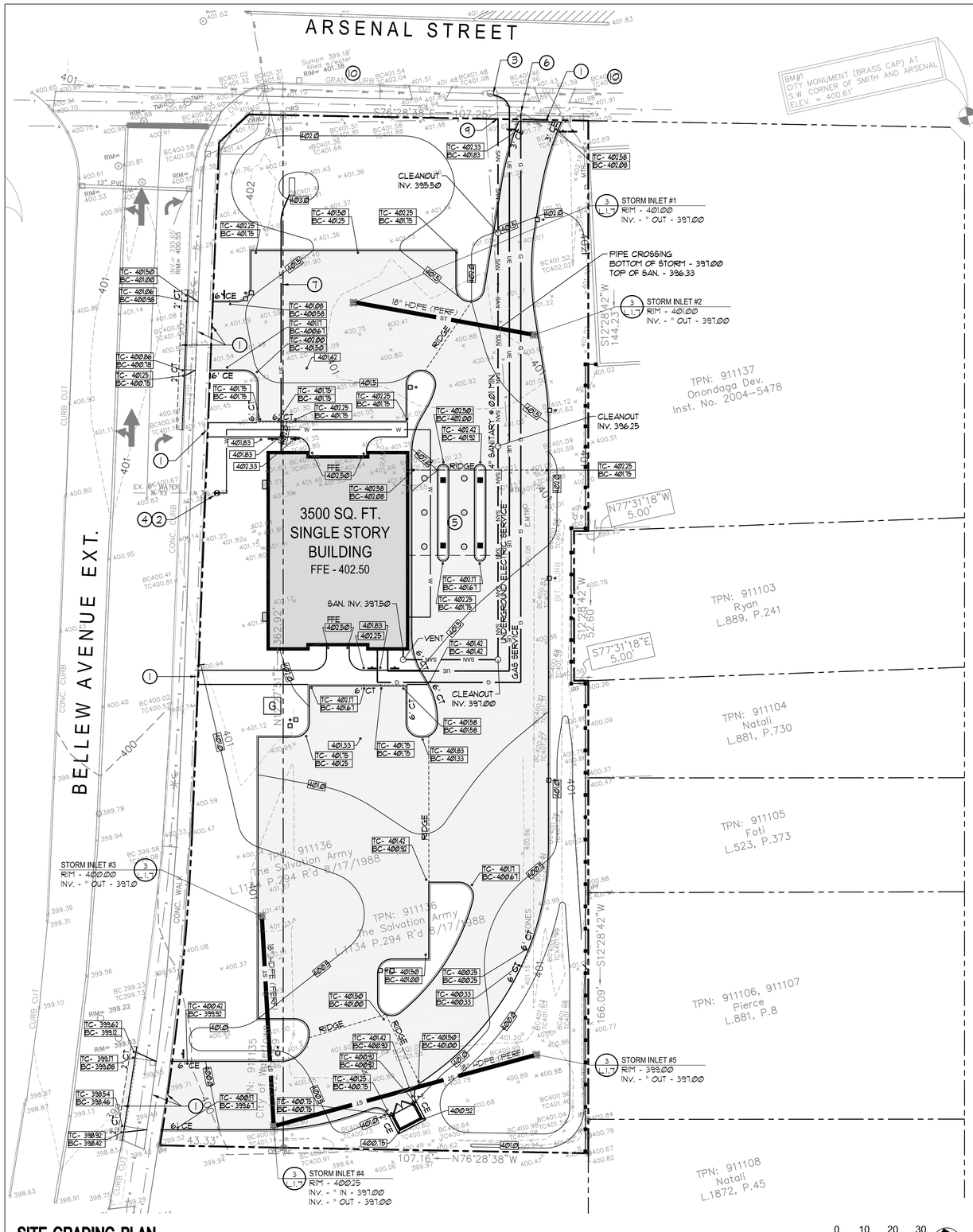
REVISIONS

Drawn By:	S.R.C.
Checked By:	E.G.K.
KFA Proj. No.:	31095
Date:	11 May 2012
Scale:	AS NOTED

Title:

EXISTING CONDITIONS AND SITE DEMOLITION PLAN

L1.1



SITE GRADING PLAN

GRADING and UTILITY GENERAL NOTES

1. ANY/ALL FILL REQUIRED BELOW PAVING SUBGRADE SHALL ONLY BE COARSE AGGREGATE FILL OR SUBBASE COURSE MATERIALS.

2. WHEREVER EXISTING STORM STRUCTURES ARE TO BE ABANDONED AND REMOVED, CUT AND PLUG CONNECTING PIPES AND/OR REMOVE PORTIONS OF PIPES WHICH MAY INTERFERE WITH OTHER WORK.

3. ALL CONCRETE PAVING AT ALL EXISTING AND NEW DOORS SHALL BE FLUSH WITH BUILDING FLOOR ELEVATION. CONCRETE PAVEMENT SHALL BE DOUELED TO FOUNDATION WALL PER DETAILS.

4. ALL EXISTING FEATURES ARE TO REMAIN UNLESS OTHERWISE NOTED. IF THE CONTRACTOR DAMAGES ANY OF THE EXISTING ON-SITE FACILITIES TO REMAIN (TREES, PAVEMENTS, UNDERGROUND UTILITIES, STRUCTURES, ETC..) WHETHER SHOWN ON THE PLANS OR NOT, THE CONTRACTOR SHALL REPAIR AND/OR REPLACE SUCH ITEMS AT HIS OWN EXPENSE AND ASSUME ALL RESPONSIBILITY FOR SUCH DAMAGE WITHOUT ANY ADDITIONAL COST TO THE OWNER. REPLACEMENT MATERIAL SHALL BE SAME QUALITY AND QUANTITY AS ORIGINAL.

5. ALL WATER LINES SHALL BE TYPE K COPPER WITH 48" MIN. COVER.

6. ALL GRAVITY SANITARY SEWER LINES SHALL BE SDR-35 PVC WITH 48" MIN. COVER.

7. CONTRACTOR SHALL COORDINATE ANY DISRUPTIONS TO EXISTING UTILITY SERVICES WITH ADJACENT PROPERTY OWNERS.

8. ALL ELECTRIC AND TELEPHONE EXTENSIONS INCLUDING SERVICE LINES SHALL BE CONSTRUCTED TO THE APPROPRIATE UTILITY COMPANY SPECIFICATIONS. ALL UTILITY DISCONNECTIONS SHALL BE COORDINATED WITH THE DESIGNATED UTILITY COMPANIES.

9. CONSTRUCTION SHALL NOT START ON ANY PUBLIC UTILITY SYSTEM UNTIL WRITTEN APPROVAL HAS BEEN RECEIVED BY THE ENGINEER FROM THE APPROPRIATE GOVERNING AUTHORITY AND THE CONTRACTOR HAS BEEN NOTIFIED BY THE ENGINEER.

10. PRIOR TO THE CONSTRUCTION OF OR CONNECTION TO ANY STORM DRAIN, SANITARY SEWER, WATER MAIN OR ANY OF THE DRY UTILITIES, THE CONTRACTOR SHALL EXCAVATE, VERIFY AND CALCULATE ALL POINTS OF CONNECTION AND ALL UTILITY CROSSINGS AND INFORM KEPLINGER FREEMAN ASSOCIATES (KFA) AND THE OWNER/DEVELOPER OF ANY CONFLICT OR REQUIRED DEVIATIONS FROM THE PLAN. NOTIFICATION SHALL BE MADE A MINIMUM OF 48 HOURS PRIOR TO CONSTRUCTION. KFA AND ITS CLIENTS SHALL BE HELD HARMLESS IN THE EVENT THAT THE CONTRACTOR FAILS TO MAKE SUCH NOTIFICATION.

11. ALL WATER MAIN AND SERVICE WORK MUST BE COORDINATED WITH THE CITY OF WATERTOWN WATER DEPARTMENT. THE WATER DEPARTMENT REQUIREMENTS SUPERCEDE ALL OTHER PLANS AND SPECIFICATIONS PROVIDED.

12. ALL WORK TO BE PERFORMED WITHIN THE CITY OF WATERTOWN MARGIN WILL REQUIRE SIGN-OFF FROM A PROFESSIONAL ENGINEER LICENSED AND CURRENTLY REGISTERED TO PRACTICE IN THE STATE OF NEW YORK THAT THE WORK WAS BUILT ACCORDING TO THE APPROVED SITE PLAN AND APPLICABLE CITY OF WATERTOWN STANDARDS. COMPACTION TESTING WILL BE REQUIRED FOR ALL WORK TO BE PERFORMED WITHIN THE CITY OF WATERTOWN MARGIN AND MUST BE SUBMITTED TO THE CITY OF WATERTOWN CODES DEPARTMENT.

GRADING and UTILITY KEY NOTES

1. MEET EXISTING LINE AND GRADE.
2. POINT OF DOMESTIC WATER SERVICE TAP PER LOCAL CODES. COORDINATE WITH OWNER AND OCWA.
3. PROPOSED POLE MOUNTED TRANSFORMER. COORDINATE WITH UTILITY COMPANY. UTILIZE EXISTING CONDUIT WHERE POSSIBLE.
4. LOCATION OF THIS UTILITY AS SHOWN IS FOR DRAWING PURPOSES ONLY. CONTRACTOR SHALL VERIFY THE EXACT LOCATION IN FIELD PRIOR TO THE CONSTRUCTION OF THE PROPOSED UTILITY LINE TO BE CONNECTED. CONTRACTOR SHALL NOTIFY KEPLINGER FREEMAN ASSOCIATES IF THE DESIGN AS SHOWN IS NOT ACHIEVABLE.
5. REFER TO ARCHITECTURAL DRAWINGS FOR ADDITIONAL SPOT GRADES UNDER DRIVE-THRU CANOPY.
6. POINT OF GAS SERVICE CONNECTION. COORDINATE WITH NATIONAL GRID.
7. PROVIDE 1-1/2" CONDUIT FROM PANEL TO PROPOSED MONUMENT SIGN LOCATION. 2'-0" MIN BURY CAP END.
8. INSTALL GRANITE CURB TO NYSDOT STANDARDS WITH 1" REVEAL.
9. FIELD VERIFY INVERT OF EXITING SANITARY LATERAL AT ARSENAL STREET AND REPORT RESULTS TO THE ARCHITECT.
10. NO WORK TO OCCUR WITHIN ARSENAL STREET RIGHT OF WAY.

AmeriCU - Approved for Construction Date

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EDMUND GILBERT KEPLINGER
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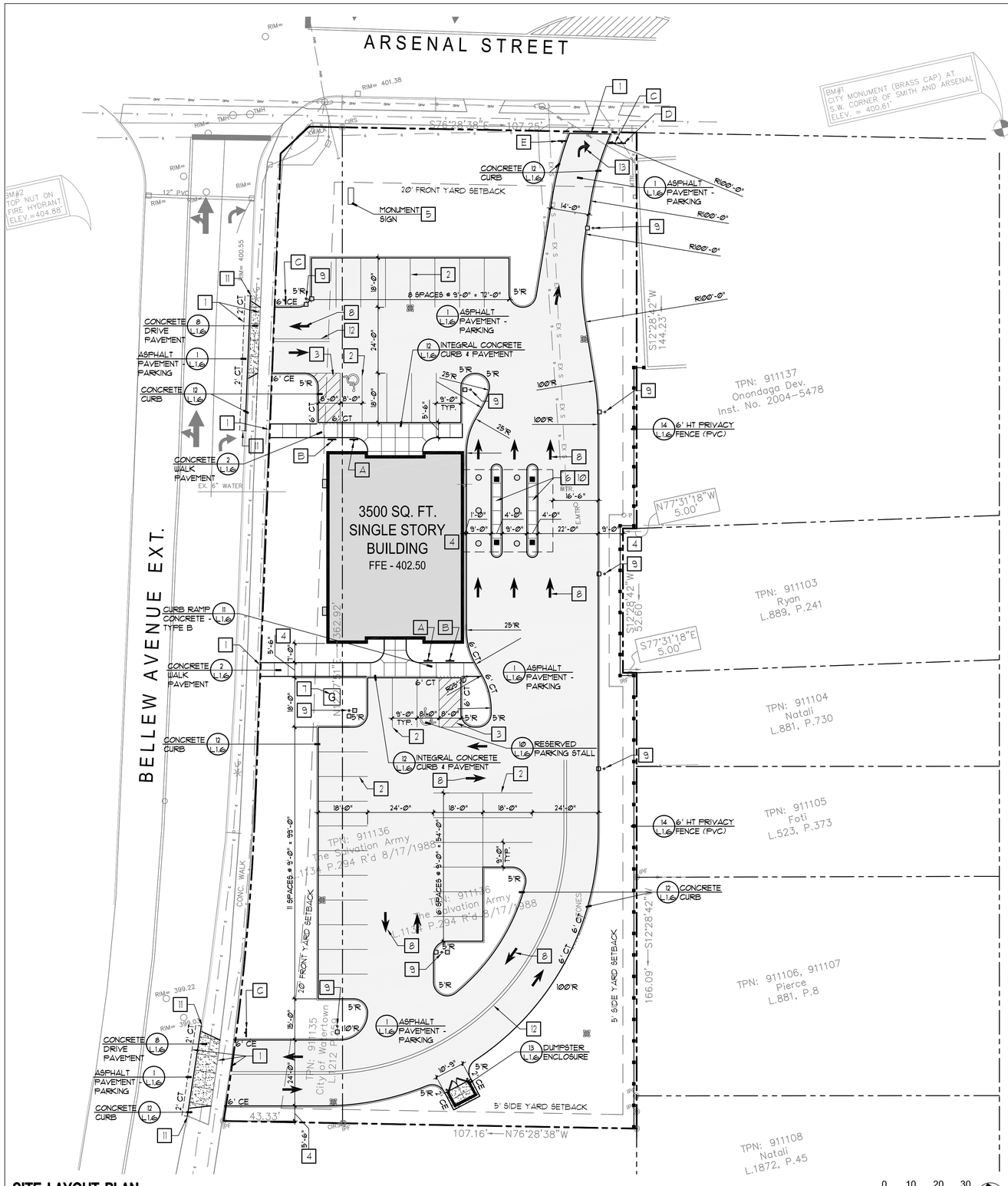
SITE GRADING DRAINAGE AND UTILITIES PLAN

L1.2



SITE LAYOUT PLAN

ZONING CHART

LOCATED WITHIN A COMMERCIAL DISTRICT

A.	MINIMUM LOT AREA	- 1,000 S.F.
	PROPOSED LOT AREA	- 44,444 S.F.
B.	MAXIMUM LOT COVERAGE	- 100%
	PROPOSED LOT COVERAGE	- 7% (3,500 SF)
C.	MINIMUM FRONT YARD	- 20 FT
	PROVIDED FRONT YARD	- 21 FT - ARSENAL ST.
	PROVIDED FRONT YARD	- 116 FT - BELLEW AVE.
D.	SIDE YARDS - TOTAL/ ONE SIDE	- 5FT
	PROVIDED SIDE YARD	- 58 FT - EAST
	PROVIDED SIDE YARD	- 174 FT - SOUTH
E.	MAXIMUM BUILDING HEIGHT	- NO REQUIREMENTS
	PROPOSED BUILDING HEIGHT	- ?
F.	PARKING REQUIREMENTS	
	5 SPACES / 1000 S.F. BLDG. AREA	
	(3,500 / 1000) X 5 = 18	- 18 SPACES
	PROPOSED PARKING	- 36 SPACES

SIGN SCHEDULE

KEY	SIGN PLATE		SIGN SIZE MOUNTING HT.	N.Y.S.D.O.T. M.U.T.C.D. NO. / COMMENTS
A	RESERVED PARKING	RESERVED PARKING W/ HANDICAP SYMBOL	12" X 18" 7'-0" HT.	SIGN NO: R4-6 COLORS: COMMENTS:
B	NO PARKING ANY TIME	NO PARKING ANY TIME	12" X 18" 7'-0" HT.	SIGN NO: - COLORS: WHITE BACKGROUND, RED TEXT AND BORDER
C	STOP	STOP SIGN	30" X 30" 7'-0" HT.	SIGN NO: R1-1 COLORS: COMMENTS:
D		NO LEFT TURN	30" X 30" 7'-0" HT.	SIGN NO: - COLORS: WHITE BACKGROUND, BLACK ARROW, RED SLASH AND BORDER
E	DO NOT ENTER	DO NOT ENTER	24" X24" 7'-0" HT.	SIGN NO: R3-15C COLORS: WHITE BACKGROUND, BLACK TEXT/SYMBOL AND BLACK BORDER

NOTES:
1. REFER TO TRAFFIC CONTROL SIGN DETAIL FOR INSTALLATION.
2. ALL REGULATORY SIGNS SHALL CONFORM TO THE MOST CURRENT N.Y.S.D.O.T. "MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.

SITE CONSTRUCTION NOTES

SCHH-XYOIT-NOTES

1. MEET EXISTING LINE and GRADE.
2. PROVIDE 4" WIDE WHITE PARKING STALL PAINT LINES - TYPICAL.
3. PROVIDE 4" WIDE WHITE PAINT LINES AT 45° @ 2' O.C. - TYPICAL.
4. P.O.B #1 - BUILDING LAYOUT BASELINE, DIMENSIONS ARE PARALLEL AND PERPENDICULAR TO THE BUILDING.
5. LOCATION OF AMERICU MONUMENT SIGN. SIGN SHALL BE SUBMITTED FOR PERMIT BY OTHERS.
6. REFER TO ARCHITECTURAL PLANS FOR DETAILS ON THE LAYOUT OF THE DRIVE-THRU ISLANDS AND PAVEMENT, INCLUDING BOLLARD LOCATIONS, EQUIPMENT PADS AND CONCRETE SURFACING.
7. LOCATION OF BACKUP GENERATOR. GENERATOR SHALL BE EARTH TONE COLOR, BROWN OR GREEN RANGE.
8. PROVIDE WHITE PAINTED THROUGH DIRECTIONAL ARROW - TYPICAL.
9. LIGHTPOLE BASE TYPICAL. REFER TO SITE LIGHTING PLAN FOR DETAILS.
10. INSTALL CONCRETE WALK PAVEMENT WITHIN CURBED ISLAND.
11. MATCH TOP AND FACE OF PROPOSED CURB TO TOP AND FACE OF EXISTING CURB.
12. PROVIDE 4" WIDE DOUBLE YELLOW PAINT LINES AT DRIVEWAY CENTERLINE.
13. PROVIDE WHITE PAINTED TURN DIRECTIONAL ARROW.
14. INSTALL GRANITE CURB TO NYSDOT STANDARDS WITH 1" REVEAL.

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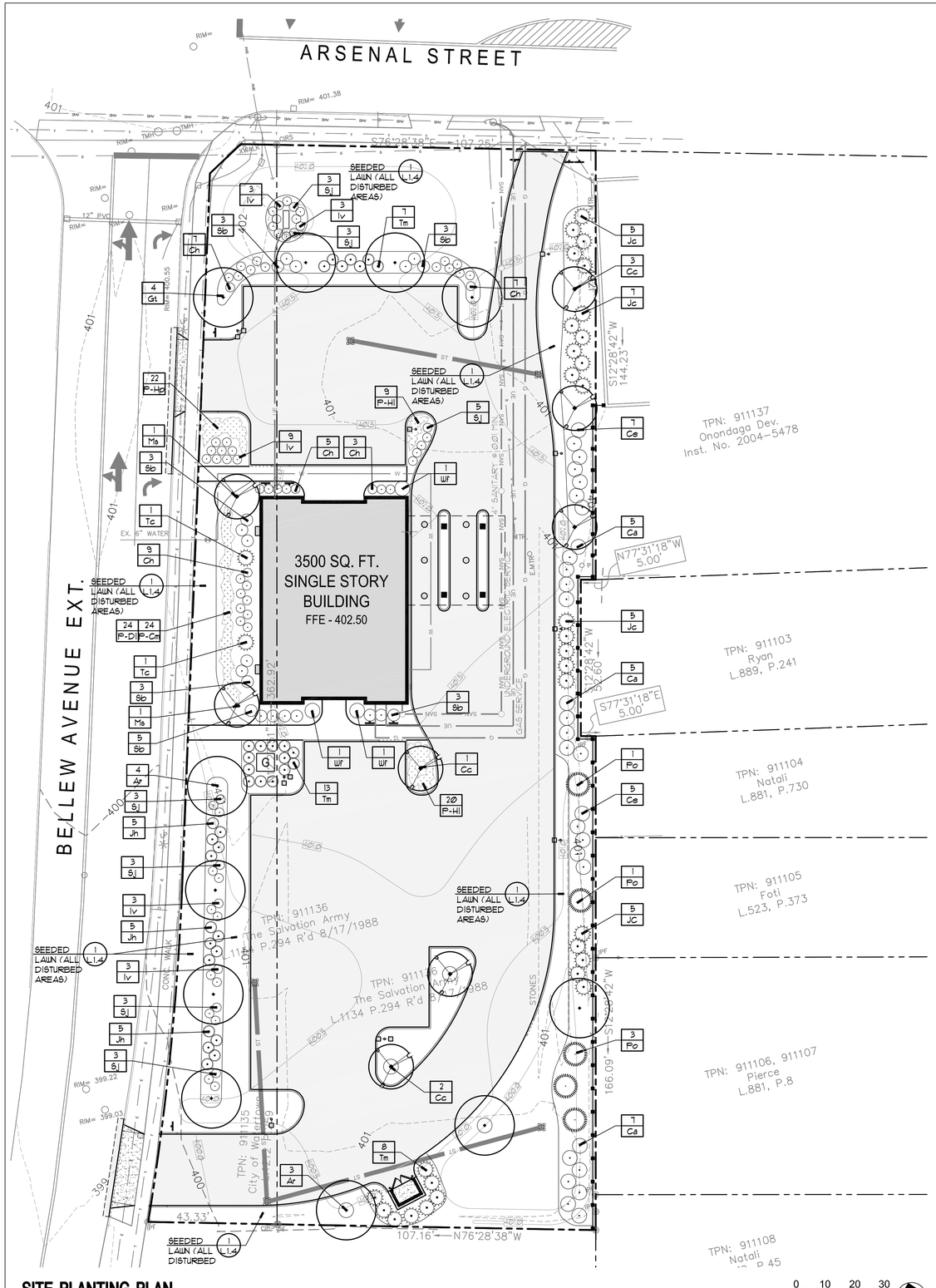
871 Arsenal Street
Watertown, New York

REVISIONS

Drawn By:	S.R.C.
Checked By:	E.G.K.
KFA Proj. No.:	31095
Date:	11 May 2012
Scale:	AS NOTED

Title:
SITE LAYOUT PLAN

L1.3



SITE PLANTING PLAN

NOT TO SCALE

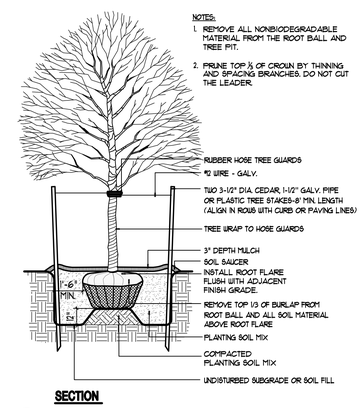
0 10 20 30
SCALE IN FEET

PLANTING PLAN NOTES

1. 3" DEPTH SHREDDED BARK MULCH
2. ALL PLANTING BEDS AROUND BUILDING ENTRIES AND ISLAND AT MAIN ENTRANCE SHALL HAVE 18"-24" MIN. DEPTH PLANT SOIL MIX
3. ALL PLANT MATERIALS AND LAWN AREAS ARE TO BE MAINTAINED BY THE OWNER.

PLANT LIST

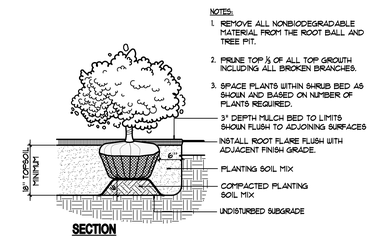
KEY	COMMON NAME	BOTANICAL NAME	CALIPER	HEIGHT	CONDITION	REMARKS
TREES						
Ar	AUTUMN BLAZE RED MAPLE	ACER x FREEMANI AUTUMN BLAZE	2.5" CAL.	--	B&B	--
Cc	EASTERN REDBUD	CERCIS CANADENSIS	2.0" CAL.	--	B&B	TREE FORM
Gt	SKYLINE HONEYLOCUST	GLEDITSIA TRIACANTHOS 'SKYLINE'	2.5" CAL.	--	B&B	--
Ms	SPRING SNOW CRABAPPLE	MALUS 'SPRING SNOW'	2.0" CAL.	--	B&B	--
Po	SERBIAN SPRUCE	PICEA OMORIKA	--	6'-7'	B&B	--
SHRUBS						
Ca	RUBY SPICE SUMMERSWEET	CLETHRA ALNIFOLIA RUBY SPICE	--	--	3 GAL.	--
Cs	VARIEGATED RED TWIG DOGWOOD	CORNUS ALBA 'ELEGANTISMA'	--	--	3 GAL.	--
Ch	HUMMINGBIRD SUMMERSWEET	CLETHRA ALNIFOLIA 'HUMMINGBIRD'	--	--	3 GAL.	--
Iv	LITTLE HENRY SWEETSPIRE	ITEA VIRGINICA 'LITTLE HENRY'	--	--	3 GAL.	--
Jc	SEA GREEN JUNIPER	JUNIPERUS CHINENSIS 'SEA GREEN'	--	24"-30"	B&B	--
Jh	ADORRAN JUNIPER	JUNIPERUS HORIZONTALIS 'ANDORRA'	--	-	2 GAL.	--
Sb	GOLDFLAME SPIREA	SPIRAEA X BUMALDA 'GOLDFLAME'	--	--	3 GAL.	--
SJ	LITTLE PRINCESS SPIREA	SPIRAEA JAPONICA 'LITTLE PRINCESS'	--	--	3 GAL.	--
Tc	CAPITAL YEW	TAXUS CUSPIDATA 'CAPITATA'	--	36"	B&B	SPEC. FORM
Tm	TAUNTON YEW	TAXUS X MEDIA 'TAUNTON'	--	24"-30"	B&B	--
To	HETZ MIDGET ARBORVITAE	THUJA OCCIDENTALIS 'HETZ MIDGET'	--	24"-30"	B&B	--
Wr	WINE AND ROSES WEIGELIA	WEIGELIA FLORIDA 'ALEXANDRA'	--	--	3 GAL.	--
PERENNIALS						
P-Cm	MOONBEAM COREOPSIS	COREOPSIS 'MOONBEAM'	--	--	1 GAL.	--
P-Dl	LADY IN RED DIANTHUS	DIANTHUS 'LADY IN RED'	--	--	1 GAL.	--
P-Hp	PARDON ME DAYLILY	HEMEROCALLIS 'PARDON ME'	--	--	1 GAL.	--
P-Hl	LEMON YELLOW DAYLILY	HEMEROCALLIS 'LEMON YELLOW'	--	--	1 GAL.	--



SECTION

3 L1.4 **TREE PLANTING**

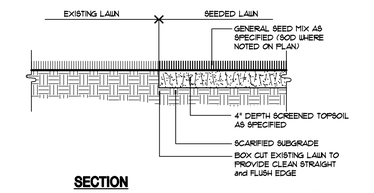
NOT TO SCALE 32-9300-01



SECTION

2 L1.4 **SHRUB PLANTING**

NOT TO SCALE 32-9300-02



SECTION

1 L1.4 **SEEDED LAWN**

NOT TO SCALE

FOR SLOPES LESS THAN 1V:4H AS INDICATED ON PLANS

32-9200-01A

AmeriCU - Approved for Construction Date

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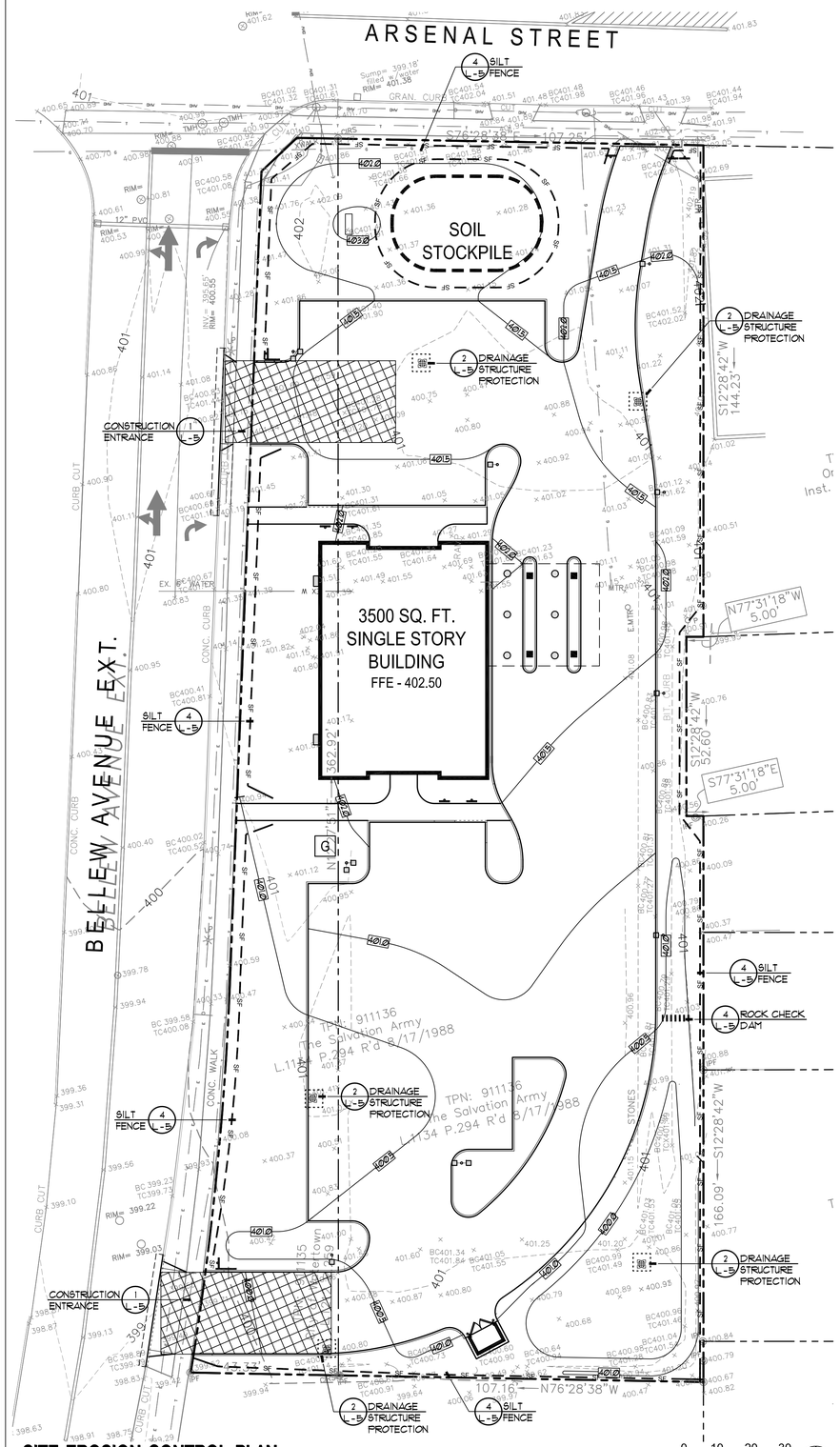
SITE PLANTING PLAN

L1.4



SITE EROSION CONTROL PLAN

EROSION CONTROL NOTES and EROSION CONTROL SEQUENCING

EROSION AND SEDIMENT CONTROL NOTES:

1. PRIOR TO THE START OF CONSTRUCTION AND UNTIL ALL DISTURBED AREAS ARE STABILIZED, ALL EROSION AND SEDIMENT CONTROL MEASURES, AS SHOWN ON THE SITE PLAN AND AS OTHERWISE REQUIRED, SHALL BE INSTALLED AND MAINTAINED BY THE CONTRACTOR, AND SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE NEW YORK STATE GUIDELINES FOR URBAN EROSION AND SEDIMENTATION CONTROL PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.

2. BARE SOILS SHALL BE MULCHED WITH HAY AT A RATE OF TWO TONS PER ACRE WITHIN 14 DAYS OF EXPOSURE. IF CONSTRUCTION ON AN AREA IS SUSPENDED, THE AREA SHALL BE SEEDED IMMEDIATELY.

3. SITE PREPARATION SHALL INCLUDE:
   A. SEEDBED PREPARATION - SCARIFY IF COMPACTED, REMOVE DEBRIS AND OBSTACLES SUCH AS ROOTS OR STUMPS.
   B. SOIL AMENDMENTS
      1. LIME TO pH 6.0
      2. FERTILIZE WITH 600 LBS OF 5-10-10 OR EQUIVALENT PER ACRE (14 LBS/100 SQ FT.).
   C. SEED MIXTURES
      1. TEMPORARY SEEDINGS
         a. RYEGRASS (ANNUAL OR PERENNIAL) @ 30 LBS/ACRE (0.7 LBS/1000 SQ FT.).
         b. CERTIFIED "ARDOSTOCK" WINTER RYE (CEREAL RYE) @ 100 LBS/ACRE (2.3 LBS/1000 SQ FT.).
      2. PERMANENT SEEDINGS
         a. ROUGH OR OCCASIONALLY MOWED AREAS:

	LBS/ACRE	LBS/1000 SQ FT
EMPIRE BIRDSFOOT (TREFOIL OR COTTON)	8	0.20
WHITE CLOVER PLUS+	8	0.20
TALL FESCUE PLUS	20	0.45
REDTOP	2	0.05
RYEGRASS (PERENNIAL)	5	0.10

+ADD INOCULANT IMMEDIATELY PRIOR TO SEEDING

   D. METHOD OF SEEDING:
      BROADCASTING, DRILLING WITH CULTIPACK TYPE SEEDER OR HYDROSEEDING ARE ACCEPTABLE.

4. DISTURBED AREAS SHALL BE SEEDED AS NOTED ABOVE AND MULCHED WITH CLEAN STRAW AS OUTLINED IN THE NEW YORK STATE GUIDELINES FOR URBAN EROSION AND SEDIMENTATION CONTROL. ON SLOPES GREATER THAN 3:1 SEEDED AREAS SHALL BE STAKED WITH JUTE MESH OR SODDED.

5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR KEEPING THE STREET PAVEMENT AREAS CLEAN OF DIRT AND DEBRIS.

6. ACCESS TO DISTURBED AREAS SHALL BE LIMITED TO THE AREAS SHOWN ON THE PLAN. THE CONTRACTOR SHALL INSTALL THE STABILIZED CONSTRUCTION ENTRANCE AT THE LOCATION SHOWN ON THE PLAN AND ANY OTHER LOCATIONS THE CONTRACTOR INTENDS TO ENTER THE SITE FROM THE ADJACENT ROADWAYS.

7. ANY EXISTING DRAINAGE FACILITIES DISRUPTED BY CONSTRUCTION OR IMPACTED BY INSTALLATION OF EROSION CONTROL MEASURES SHALL BE REPLACED TO MATCH EXISTING CONDITIONS OR BETTER.

8. TEMPORARY EROSION AND SEDIMENTATION CONTROL FACILITIES - AS SEDIMENT ACCUMULATES TO ½ THE DEPTH OF THE STORMWATER BASIN, SEDIMENT SHALL BE REMOVED AS OUTLINED IN THE NYS GUIDELINES FOR URBAN EROSION AND SEDIMENT CONTROL.

9. DIRECT ACCESS SHALL BE PROVIDED TO ALL BASIN AREAS FOR MAINTENANCE AND REHABILITATION.

10. THE PERMITEE & ITS SUBCONTRACTORS ARE RESPONSIBLE FOR MEANS & METHODS OF EROSION CONTROL FACILITIES DURING CONSTRUCTION. IT SHOULD BE NOTED THAT FACILITIES ON THIS DRAWING ARE CONSIDERED MINIMUM & ADDITIONAL EROSION CONTROL MEASURES MAY BE REQUIRED AS CONSTRUCTION PROGRESSES. THE PERMITEE & ITS SUBCONTRACTORS ARE RESPONSIBLE FOR ANY ADDITIONAL MEASURES DEEMED NECESSARY BY THE ENGINEER, TOWN OR NYSDEC.

11. PROVIDE EROSION CONTROL MEASURES AS NOTED ON THE PLANS AND AS OTHERWISE REQUIRED TO PREVENT EROSION AND SEDIMENTATION ONTO ADJOINING PROPERTY, STREETS, WATERWAYS, AND ON SITE IMPROVEMENTS BEYOND THE LIMITS OF WORK. COMPLY WITH THE LATEST ISSUE OF "NEW YORK GUIDELINES FOR URBAN EROSION AND SEDIMENT CONTROL" AND THE NYSDEC'S "REDUCING THE IMPACTS OF STORMWATER RUNOFF FROM NEW DEVELOPMENT".

12. MAINTENANCE - THE CONTRACTOR SHALL INSPECT ALL DRAINAGE STRUCTURES AND EROSION CONTROLS ON A WEEKLY BASIS AND AFTER ALL STORMS (½" RAINFALL OR GREATER) INCLUDING BUT NOT LIMITED TO THE FOLLOWING: REPLACING DAMAGED OR SILTED IN EROSION CONTROLS, CLEANING OUT STRUCTURES, AND STABILIZING ERODED OR WASHED OUT SLOPED AREAS.

13. CONTRACTOR SHALL MAINTAIN EROSION CONTROL MEASURES UNTIL CONSTRUCTION IS COMPLETE, LAWNS HAVE BECOME ESTABLISHED AND ALL SOURCES OF EROSION HAVE BEEN PERMANENTLY STABILIZED.

14. CONTRACTOR SHALL PROVIDE DUST CONTROL IN ACCORDANCE WITH THE LATEST ISSUE OF "NEW YORK GUIDELINES FOR URBAN EROSION AND SEDIMENT CONTROL."

EROSION CONTROL and CONSTRUCTION SEQUENCE

THE PROJECT WILL CREATE A TOTAL SITE DISTURBANCE OF APPROXIMATELY .96 ACRES. THE SITE DISTURBANCE WILL BE PHASED TO LIMIT THE POTENTIAL FOR EROSION AND SEDIMENTATION ISSUES DURING THE CONSTRUCTION PROCESS. BELOW IS A LISTING OF THE ANTICIPATED PHASING.

THE SEQUENCE OF CONSTRUCTION FOR EACH AREA SHALL BE:

1. PRIOR TO ANY SITE DISTURBANCE, CONSTRUCT A STABILIZED CONSTRUCTION ENTRANCE OF 6" MINIMUM STONE AGGREGATE UNDERLAIN WITH FILTER FABRIC AT PROPOSED SITE ENTRANCE LOCATION AS SHOWN ON THE DRAWING.

2. SILT FENCE - INSTALL PERIMETER SILT FENCE AS SHOWN ON PLAN PRIOR TO EARTHWORK. SILT FENCE SHALL BE UTILIZED ONLY AS A TEMPORARY MEASURE. DISTURBED AREAS SHALL BE SEEDED IMMEDIATELY FOLLOWING THE COMPLETION OF ANY EARTHWORK PHASE.

3. CLEARING AND GRUBBING - REMOVE ALL TREES, STUMPS AND BRUSH PRIOR TO EARTHWORK.

4. PROVIDE ALL DRAINAGE CHANNELS AND INSTALL EROSION CONTROL MEASURES WITHIN DRAINAGEWAYS. INSTALL CHECK DAMS WHERE INDICATED ON THE PLANS.

5. STRIP AND STOCKPILE TOPSOIL IN AREA SHOWN ON PLAN AND / OR AGREED UPON LOCATION WITH OWNER. ENCLOSE TOPSOIL STOCKPILE AREAS WITH SILT FENCE.

6. PROVIDE DRAINAGE STRUCTURES AND PIPING, INCLUDING DRAINAGE INLET PROTECTION AS SHOWN ON THE DRAWING.

7. PREPARE BUILDING PAD AREA AND PARKING AREA SUBGRADE.

8. EXCAVATE AND FILL REST OF SITE AREAS. FINE GRADE, SEED AND MULCH ALL DISTURBED AREAS WITHIN FOURTEEN (14) DAYS OF DISTURBANCE. AREAS TO RECEIVE ASPHALT PAVEMENT SHOULD BE PAVED WITH AT LEAST THE ASPHALT BINDER COURSE WITHIN FOURTEEN (14) DAYS OF PLACEMENT OF THE SUBBASE COURSE. MAINTAIN ALL DISTURBED SOIL AREAS AND DRAINAGE FACILITIES UNTIL AREAS ARE COMPLETELY STABILIZED AND VEGETATION IS ACHIEVED.

9. EXCAVATE, FILL AND GRADE PARKING LOT SUBBASE AS SHOWN ON THE DRAWINGS. FINE GRADE, SEED AND MULCH ALL DISTURBED AREAS WITHIN FOURTEEN (14) DAYS OF DISTURBANCE. AREAS TO RECEIVE ASPHALT PAVEMENT SHOULD BE PAVED WITH AT LEAST THE ASPHALT BINDER COURSE WITHIN FOURTEEN (14) DAYS OF PLACEMENT OF THE SUBBASE COURSE. MAINTAIN ALL DISTURBED SOIL AREAS AND DRAINAGE FACILITIES UNTIL AREAS ARE COMPLETELY STABILIZED AND VEGETATION IS ACHIEVED.

10. REMOVE TEMPORARY CONSTRUCTION ENTRANCE AFTER ASPHALT BINDER COURSE IS PLACED.

11. REMOVE TEMPORARY SILT FENCING AND ROCK CHECK DAMS AFTER SITE IS COMPLETELY STABILIZED AND VEGETATION IS ACHIEVED

FINAL CLEAN UP & PREVENTATIVE MAINTENANCE

1. REMOVE AND/OR MAINTAIN STOCKPILE AREAS.

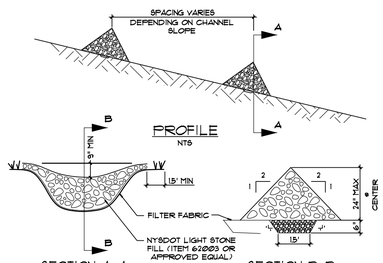
2. REMOVE EROSION CONTROL MEASURES FROM STABILIZED AREAS.

3. FINAL CLEAN UP - REMOVE EROSION CONTROL MEASURES AND CLEAN OUT ALL DRAINAGE STRUCTURES AND PIPES AFTER LAWN IS WELL ESTABLISHED. OWNER IS RESPONSIBLE FOR MAINTAINING SITE UPON PROJECT CLOSEOUT.

4. CONTRACTOR, ARCHITECT, AND OWNER TO REVIEW SITE FOR COMPLETION. CONTRACTOR TO ADDRESS FINAL COMMENTS ON PUNCH LIST FROM ARCHITECT.

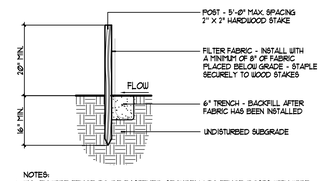
SWPPP LEGEND

- SF — SILT FENCE
- SEDIMENT TRAP @ CB/INLET
- JUTE MESH
- CONSTRUCTION ENTRANCE
- CHECK DAM



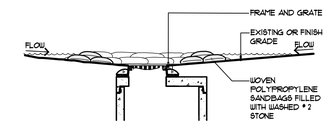
NOTES:
1. STONE WILL BE PLACED ON A FILTER FABRIC FOUNDATION TO THE LINES, GRADES AND LOCATIONS SHOWN IN THE PLAN.
2. SET SPACING OF CHECK DAMS TO ASSURE THAT THE ELEVATIONS OF THE CREST OF THE DOWNSTREAM DAM IS AT THE SAME ELEVATION OF THE TOE OF THE UPSTREAM DAM.
3. EXTEND THE STONE A MINIMUM OF 15 FEET BEYOND THE DITCH BANKS TO PREVENT CUTTING AROUND THE DAM.
4. PROTECT THE CHANNEL DOWNSTREAM OF THE LOWEST CHECK DAM FROM SCOUR AND EROSION WITH STONE OR LINER AS APPROPRIATE.
5. ENSURE THAT CHANNEL APPURTENANCES SUCH AS CULVERT ENTRANCES BELOW CHECK DAMS ARE NOT SUBJECT TO DAMAGE OR BLOCKAGE FROM DISPLACED STONES.
6. MAXIMUM DRAINAGE AREA 2 ACRES.
7. REFER TO SWPPP SECTION 7 FOR NYS STANDARDS & SPECIFICATIONS FOR CHECK DAMS.

SECTION
4 / L1.5 ROCK CHECK DAM
NOT TO SCALE — 31-1001-06



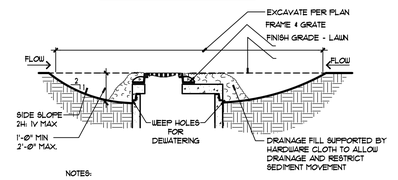
NOTES:
1. WOVEN WIRE FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES.
2. FILTER CLOTH TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED 24" AT TOP AND MID SECTION.
3. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVERLAPPED BY SIX (6) INCHES AND FOLDED.
4. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE. FENCING SHALL BE INSPECTED MONTHLY, AND FOLLOWING MAJOR RAINFALLS.
5. THE FOLLOWING MATERIALS SHALL BE USED FOR CONSTRUCTION OF THE SILT FENCE:
   POSTS: STEEL EITHER "T" OR "U" TYPE OR 2" HARDWOOD
   FENCE: WOVEN WIRE 14-1/2 GA. 6" MAX. MESH OPENING.
   FILTER CLOTH: FILTER X, MIRAFI 1100X, STABILINKA T140N OR APPROVED EQUAL.
   PREFABRICATED UNIT: GEOFAB, ENVIROFENCE, OR APPROVED EQUAL.
6. REFER TO SWPPP, SECTION 7 FOR NYS STANDARDS & SPECIFICATIONS FOR SILT FENCE.

SECTION
3 / L1.5 SILT FENCE (SF)
NOT TO SCALE — 31-1001-01



NOTES:
1. CLEAR THE AREA OF ALL DEBRIS THAT WILL HINDER SANDBAG PLACEMENT.
2. SANDBAGS TO BE PLACED ON EXISTING GRADE AND STACKED IF NECESSARY TO ELIMINATE DEBRIS FROM ENTERING STRUCTURE.
3. CONTRACTOR SHALL USE A WOVEN POLYPROPYLENE SANDBAG FILLED WITH DRAINAGE FILL (WASHED ¾" STONE) OR AN APPROVED EQUAL.
4. CONTRACTOR SHALL MAINTAIN, REPAIR and REPLACE DAMAGED OR WORN SANDBAGS.

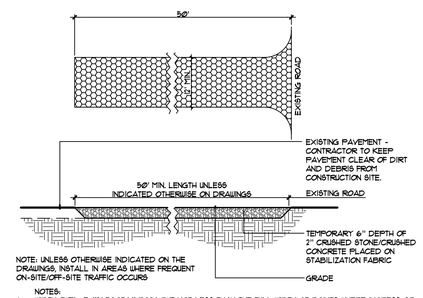
SECTION - PAVED AREAS



NOTES:
1. CLEAR THE AREA OF ALL DEBRIS THAT WILL HINDER EXCAVATION.
2. GRADE APPROACH TO THE INLET UNIFORMLY AROUND THE BASIN.
3. WEEP HOLES SHALL BE PROTECTED BY DRAINAGE FILL (GRAVEL).
4. UPON STABILIZATION OF CONTRIBUTING DRAINAGE AREA, SEAL WEEP HOLES, FILL BASIN WITH STABLE SOIL TO FINAL GRADE, COMPACT IT PROPERLY AND STABILIZE WITH PERMANENT SEEDING.
5. MAXIMUM DRAINAGE AREA 1 ACRE
6. CONTRACTOR MAY UTILIZE ANY APPROPRIATE STORM DRAIN INLET MEASURE WHICH COMPLIES WITH NYS STANDARDS & SPECIFICATIONS FOR EROSION & SEDIMENT CONTROL. REFER TO SWPPP, SECTION 7 FOR NYS STANDARDS & SPECIFICATIONS FOR STORM DRAIN INLET PROTECTION.
7. AFTER TOPSOIL and FINE GRADING, CONTRACTOR SHALL PLACE 10' x 10' SQUARE OF SOD AROUND STRUCTURE.

SECTION - UNPAVED AREAS

SECTION
2 / L1.5 DRAINAGE STRUCTURE PROTECTION
NOT TO SCALE — 31-1001-02



NOTE: UNLESS OTHERWISE INDICATED ON THE DRAWINGS, INSTALL IN AREAS WHERE FREQUENT ON-SITE/OFF-SITE TRAFFIC OCCURS

NOTES:
1. WIDTH-TWELVE (12) FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS. TWENTY-FOUR (24) FOOT IF SINGLE ENTRANCE TO SITE.
2. FILTER CLOTH WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE.
3. 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 WILL BE PERMITTED.
4. MAINTENANCE-THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHT-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.
5. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.
6. REFER TO SWPPP, SECTION 7 FOR NYS STANDARDS AND SPECIFICATIONS FOR STABILIZED CONSTRUCTION ENTRANCE.

SECTION
1 / L1.5 CONSTRUCTION ENTRANCE (MUDRACK)
NOT TO SCALE — 31-1001-04

AmeriCU - Approved for Construction — Date

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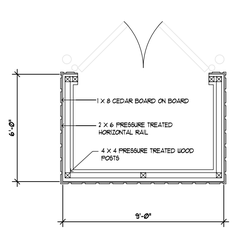
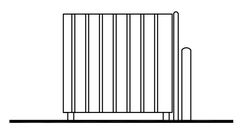
SITE EROSION AND SEDIMENT CONTROL PLAN

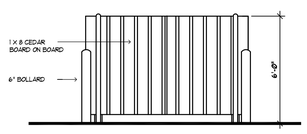
L1.5



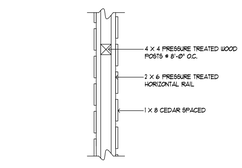
PLAN



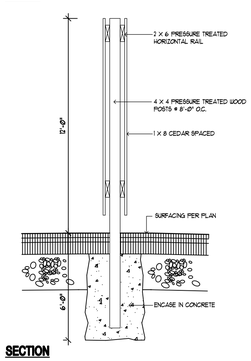
SIDE ELEVATION



FRONT ELEVATION



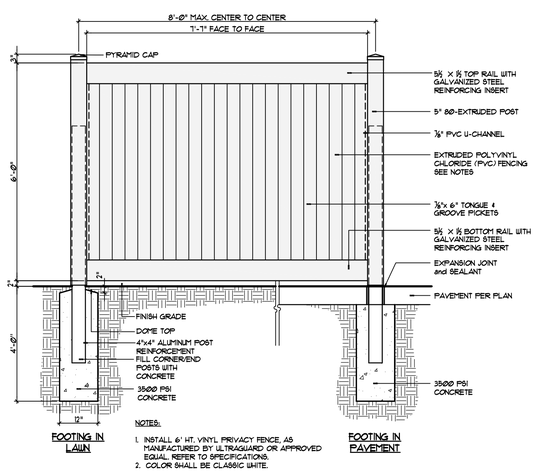
DETAIL



SECTION

13 L1.6 DUMPSTER ENCLOSURE DETAILS

NOT TO SCALE — SCALE: 1/4" - 1'-0" — dumpster detail

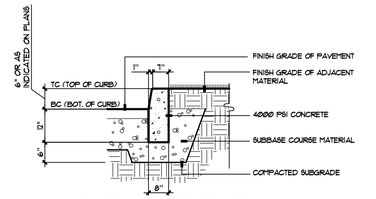


NOTES:
1. INSTALL 6' HT. VINYL PRIVACY FENCE, AS MANUFACTURED BY ULTRAGUARD OR APPROVED EQUAL. REFER TO SPECIFICATIONS.
2. COLOR SHALL BE CLASSIC WHITE.

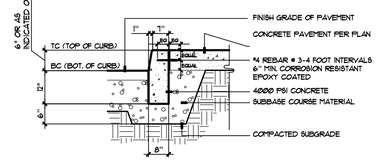
ELEVATION

14 L1.6 6' HT. PRIVACY FENCE (PVC)

NOT TO SCALE — 32-3123-02



SECTION AT UNPAVED AREA

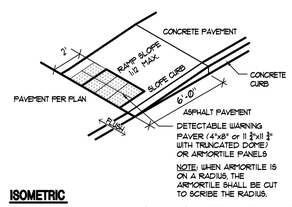


SECTION AT CONCRETE WALK

NOTES:
1. PROVIDE SCORE CONTROL JOINT EVERY 10'-0".

12 L1.6 CONCRETE CURB and PAVEMENT - SLIP FORM

NOT TO SCALE — 32-1313-04B

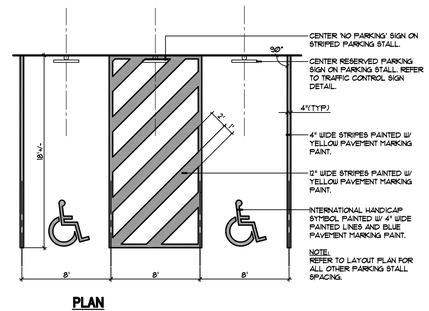


NOTE: WHEN ARMORTILE IS ON A RADIUS, THE ARMORTILE SHALL BE CUT TO SCRIBE THE RADIUS.

ISOMETRIC

11 L1.6 CURB RAMP - CONCRETE TYPE B

NOT TO SCALE — 32-1313-09F

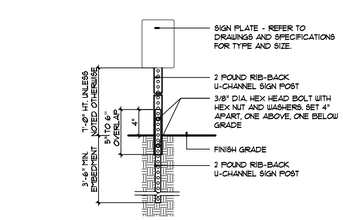


NOTE:
REFER TO LAYOUT PLAN FOR ALL OTHER PARKING STALL SPACING.

PLAN

10 L1.6 RESERVED PARKING STALL

NOT TO SCALE — 32-1723-01

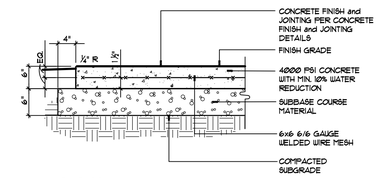


SECTION - NON-PAVED AREAS

NOTES:
1. FABRICATE SIGN PANELS OF 6063 ALUMINUM.
2. ALL SIGNS SHALL BE FASTENED TO OR MOUNTED ON POST WITH GALVANIZED BOLTS, NUTS AND WASHERS.
3. FOR FURTHER INFORMATION, REFER TO THE LATEST EDITION OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS, U.S. DEPARTMENT OF TRANSPORTATION, FEDERAL HIGHWAY ADMINISTRATION.
4. COORDINATE SIGN LOCATION TO AVOID UTILITIES.

9 L1.6 TRAFFIC CONTROL SIGN

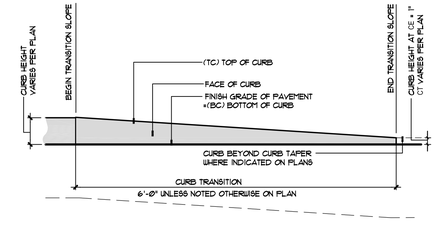
NOT TO SCALE — 32-4000-01



SECTION

8 L1.6 CONCRETE DRIVE PAVEMENT

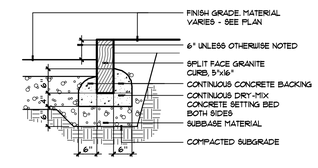
NOT TO SCALE



ELEVATION

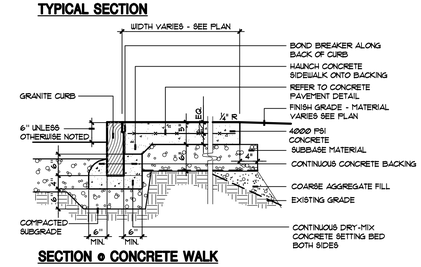
7 L1.6 CURB ENDING/TAPER (CE/CT)

NOT TO SCALE — 32-1313-07



NOTE:
1. AT FLUSH CURBS, 5"x12" DEEP MIN. CURB PIECES MAY BE USED.
2. REFER TO "SECTION @ CONCRETE WALK" FOR AREAS WHERE CONCRETE WALK ABUTS GRANITE CURB.

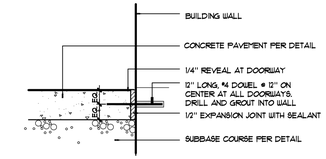
TYPICAL SECTION



SECTION @ CONCRETE WALK

6 L1.6 GRANITE CURB

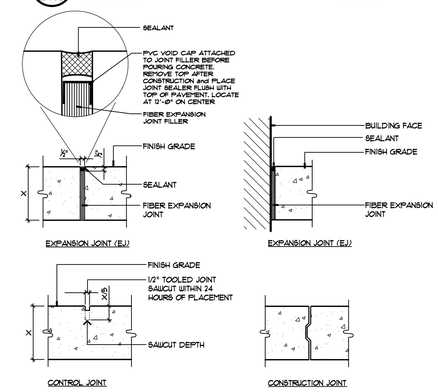
NOT TO SCALE — 32-1640-07



SECTION

5 L1.6 CONCRETE DOWELING @ BUILDING

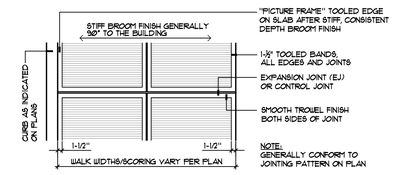
NOT TO SCALE — 32-1313-10



SECTION

4 L1.6 CONCRETE JOINT DETAILS

NOT TO SCALE — 32-1313-04

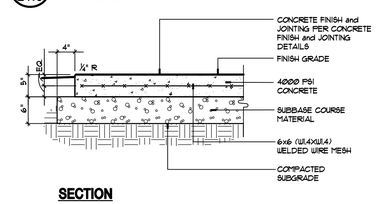


NOTE:
GENERALLY CONFORM TO JOINTING PATTERN ON PLAN

PLAN

3 L1.6 CONCRETE FINISH

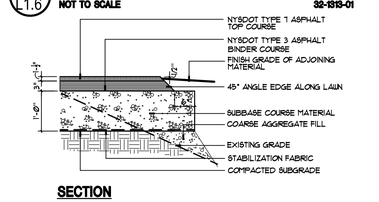
NOT TO SCALE — 32-1313-03



SECTION

2 L1.6 CONCRETE WALK PAVEMENT

NOT TO SCALE — 32-1313-01



SECTION

1 L1.6 ASPHALT PAVEMENT - PARKING

NOT TO SCALE — 32-1216-02

AmeriCU - Approved for Construction Date

KEPLINGER FREEMAN ASSOCIATES
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RZ Engineering, PLLC
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EAST SYRACUSE, NY 13057
PH: 315.432.1089 FAX: 315.445.7981

REGISTERED LANDSCAPE ARCHITECT — EDWARD GILBERT KEPLINGER — 001835 — STATE OF NEW YORK

Client:
Canal Properties II Inc., LLC
125 High Rock Avenue
Saratoga Springs, NY 12866

Contact: Devin Dal Pos
(518) 306-3747
(212) 401-4759

AmeriCU CREDIT UNION

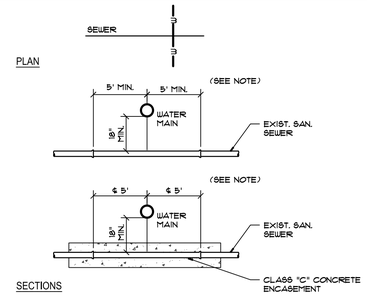
871 Arsenal Street
Watertown, New York

REVISIONS

Drawn By:	S.R.C.
Checked By:	E.G.K.
KFA Proj. No.:	31095
Date:	11 May 2012
Scale:	AS NOTED

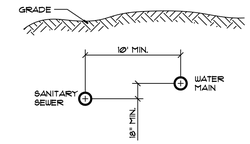
Title:
SITE DETAILS

L1.6



NOTE:
IF DISTANCE FROM WATER MAIN TO SEWER JOINT IS LESS THAN 5' MIN, THEN THE SEWER PIPE SHALL BE ENCASED IN CONCRETE, 10' ON BOTH SIDES OF WATER MAIN.

SANITARY SEWER & WATER MAIN CROSSING



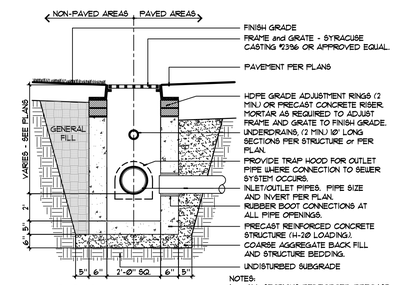
HORIZONTAL & VERTICAL SEPARATIONS

PARALLEL SANITARY SEWER & WATER MAIN

NOTE:
SEPARATION DISTANCES LISTED FOR SANITARY SEWERS ALSO APPLY TO STORM SEWERS, AS IDENTIFIED ON THE PLANS.

6 / L1.7 SEPARATION BETWEEN SEWER AND WATER LINES

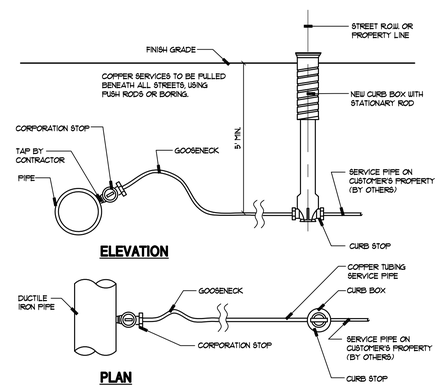
N.T.S. 33-3913-07



NOTES:
1. ALL SECTIONS REINFORCED PRECAST CONCRETE DESIGNED FOR H-20 LOADING.
2. ADD PRECAST CONCRETE RISER(S) AS REQUIRED.

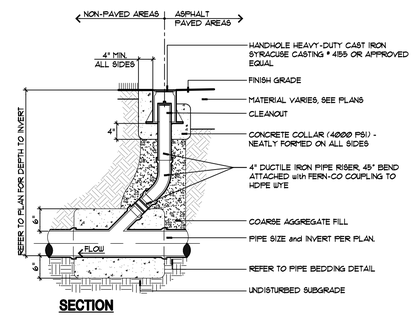
3 / L1.7 STORM INLET (SI)

NOT TO SCALE 33-4000-01A



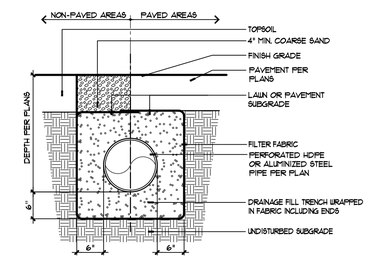
8 / L1.7 CURB BOX DETAIL

N.T.S. D2660-09



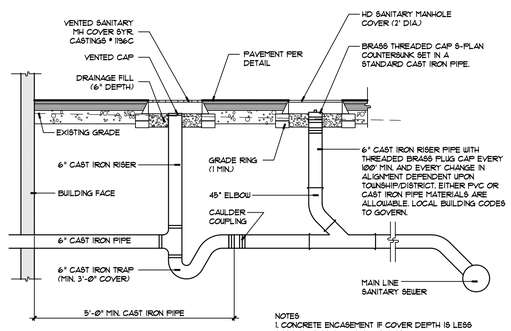
5 / L1.7 STORM/SANITARY CLEANOUT (CO)

NOT TO SCALE 33-4000-08



2 / L1.7 PERF. PIPE TRENCH

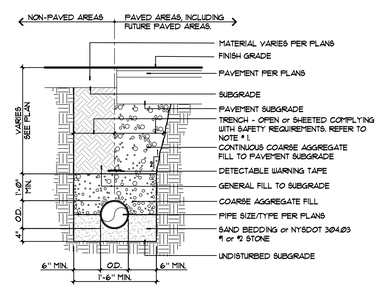
NOT TO SCALE 33-4000-21C



NOTES
1. CONCRETE ENCASEMENT IF COVER DEPTH IS LESS THAN 4'-0" UNDER PAVED AREAS.
2. MINIMUM DEPTH OF COVER IS 3'-0"
3. COVER FOR CLEANOUTS LOCATED IN PAVED AREAS TO BE NEENAH FOUNDRY SERIES R318 OR APPROVED EQUAL.

7 / L1.7 COMMERCIAL SERVICE TRAP and VENT (IN PAVED AREAS)

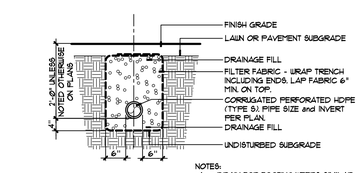
NOT TO SCALE 33-3913-02C



NOTES:
1. TRENCH DEPTHS, WIDTHS, SHEETING, SHORING, BRACING and CUTBACK SLOPES TO BE DETERMINED BY THE CONTRACTOR and COMPLY WITH O.S.H.A., NEW YORK STATE DEPARTMENT OF LABOR, NEW YORK STATE INDUSTRIAL CODE and ALL OTHER APPLICABLE SAFETY STANDARDS.
2. APPLIES TO NON-PERFORATED STORM PIPE, WATER PIPE AND SANITARY SEWER PIPING.
3. REFER TO PERF. HDPE PIPE BEDDING DETAIL FOR PERF. HDPE STORM PIPE INSTALLATION WHERE NOTED ONE PLANS.

4 / L1.7 PIPE BEDDING

NOT TO SCALE 33-4000-20



NOTES:
1. DRAIN FOR FOOTINGS/WEEPS SIMILAR.
2. CAP ALL FREE ENDS.
3. (UD) FOR USE IN ALL CATCH BASINS and STORM INLETS.

1 / L1.7 UNDERDRAIN (UD)

NOT TO SCALE 33-4000-21

AmeriCU - Approved for Construction Date

KEPLINGER FREEMAN ASSOCIATES
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Contact: Devin Dal Pos
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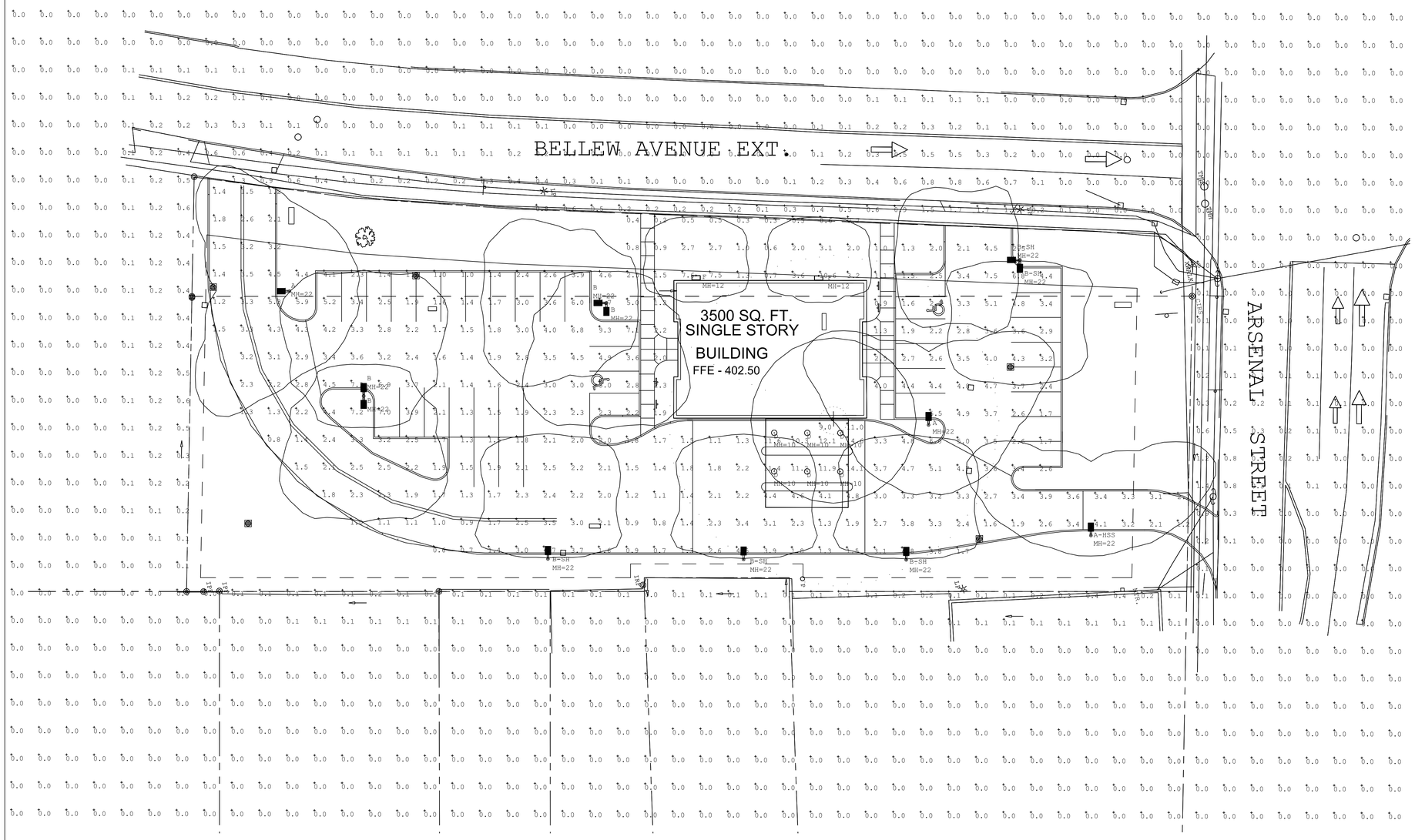
871 Arsenal Street
Watertown, New York

REVISIONS

Drawn By:	S.R.C.
Checked By:	E.G.K.
KFA Proj. No.:	31095
Date:	11 May 2012
Scale:	AS NOTED

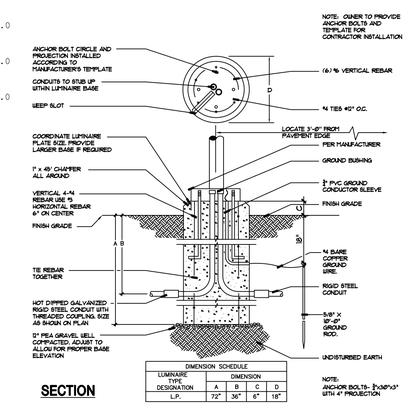
Title:
SITE DETAILS

L1.7



Luminaire Schedule					
Symbol	Qty	Label	Lumens	LLF	Description
	2	A	22000	0.750	AP2-250PS-QT-3H
	4	B	22000	0.750	AP2-250PS-QT-FT
	5	B-SH	22000	0.750	AP2-250PS-QT-FT-SH
	1	A-HSS	22000	0.750	AP2-250PS-QT-3H-HSS
	6	D	6000	0.750	M6-70E WITH 8600C-WH
	2	F	5000	0.750	DR70PS-QT-FT

Calculation Summary							
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
Parking lot	Illuminance	Fc	2.66	10.6	0.2	13.30	53.00
Spill	Illuminance	Fc	0.06	1.7	0.0	N.A.	N.A.
1 fc radius	Illuminance	Fc	3.11	6.0	1.1	2.83	5.45
2 fc radius	Illuminance	Fc	8.14	14.6	3.0	2.71	4.87
5 fc radius	Illuminance	Fc	10.00	11.0	9.0	1.11	1.22



DIMENSION SCHEDULE				
LUMINAIRE TYPE DESIGNATION	DIMENSION			
	A	B	C	D
L.P.	72"	36"	6"	18"

SECTION

1 / L1.8 **FOUNDATION LUMINAIRE BASE - ROUND**
NOT TO SCALE
33-7000-01A

SITE LIGHTING PLAN

0 10 20 30
SCALE IN FEET

AmeriCU - Approved for Construction Date

KEPLINGER FREEMAN ASSOCIATES
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REGISTERED LANDSCAPE ARCHITECT EDWARD GILBERT KEPLINGER 001831 STATE OF NEW YORK

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Contact: Devin Dal Pos
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(212) 401-4759

871 Arsenal Street
Watertown, New York

REVISIONS

Drawn By:	S.R.C.
Checked By:	E.G.K.
KFA Proj. No.:	31095
Date:	11 May 2012
Scale:	AS NOTED

Title:
SITE LIGHTING PLAN

L1.8

AccuLite

ALARI+™

PARKING, ROADWAY & AREA LIGHTING

HIGH PERFORMANCE ROTATABLE OPTICS , ELECTRONIC BALLAST, HORIZONTAL LAMP

Project:

Fixture Type:

Location:

Contact/Phone:

Cat. No.: Series Lamp Volts Beam Options

Accessories.:

Description

Beauty & Style The ultimate in stylish lighting design, the Alari™+ luminaire provides a graceful transition from ground to sky. The sweeping curves and elegant lines creates a daytime appeal not normally found in a luminaire of this type. Designer colors are are available.

Premium Performance The precision engineered multi-faceted optical package ensures precise light control, high light levels and superior uniformity. High reflectance reflector materials are employed to achieve outstanding performance levels. An exciting new option, AccuLite's high transmission (98%) glass lens increases offers even higher levels of performance. The full complement of beam spreads makes Alari™+ the ideal choice for elegant high performance lighting

Features

Premium Optics Miro 4®, 95% enhanced specular aluminum • Precision engineered multi-faceted reflectors ensures precise light control and superior uniformity • Heat resistant tempered glass lens

High Transmission Lens 98% efficient high transmission glass lens is optional

Rotatable Optics Alari+ optics can be rotated in increments of 90°

Low EPA The Alari™+ luminaire features a sleek, low-resistance profile

"Dark Sky" Friendly Full cut-off • International Dark Sky Association Seal of Approval for dark sky friendly full cut-off luminaires

Tool-Less Relamping Snap action door latch

Construction Die cast aluminum • Stainless steel external hardware • Removable hinged door • Power tray ballast mounting system

Easy Mounting Two bolt keyhole mounting

Finish Baked polyester powder coat • Corporate colors are available

EISA AccuLite 175W - 400W Pulse Start MH luminaires are designed and built to Energy Independance & Security Act standards

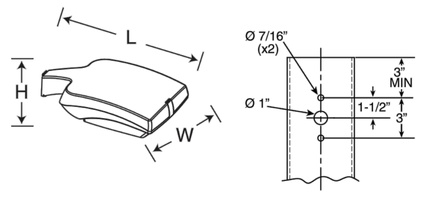
Lampholder HID - specification grade mogul base porcelain • Compact Fluorescent: 4-pin electronic

Ballast Electronic - 250W, 320W, 350W and 400W • Improved lamp lumen depreciation • Extended lamp life • Improved ballast efficiency • Suitable for low temperature starting • Pulse Start MH -30°C • Compact Fluorescent -18°C

Certification Certified to UL1598/CSA C22.2 250 • IP65 • IDA Full Cut-Off • Suitable for wet locations

DIMENSIONS

	EPA	L	W	H	Weight
AP1 Series	0.8 ft²	23"	14"	5 7/8"	30 lb.
AP2 Series	1.2 ft²	32"	18 5/8"	7 9/16"	52 lb.



Electronic vs Magnetic Ballast

	Electronic Ballast	Conventional Magnetic Ballast
Lamp Lumen Depreciation	10% loss @ 24,000 hr	50% loss @ 10,000 hr
Comparable Mean Lumens	320W Pulse Start	400W Pulse Start
Effective Lamp Life	36,000 hours	18,000 hours
Ballast Efficiency	94%	85%

JUNO LIGHTING GROUP by Schneider Electric

AccuLite

ALARI+™

ORDERING INFORMATION

HIGH PERFORMANCE ROTATABLE OPTICS , ELECTRONIC BALLAST, HORIZONTAL LAMP

To create the catalog number fill in the grey "Product Codes" boxes below

Cat. No.: Series Lamp Volts Beam Options

Accessories.:

PRODUCT CODES

Fill in the red lines (use the bold type below, options are listed below the main catalog information)

Series

Horizontal Lamp
- **AP1-** CFL - One Lamp 26W - 70W
- **AP1-** CFL - Two Lamps 26W - 42W
- **AP2-** HID - One Lamp 250W - 400W

Lamp Wattage/Type

Pulse Start Metal Halide†
AP2- MOGUL BASE
Ⓔ {**250PS, 320PS** ED28

Compact Fluorescent
AP1- GX24Q BASE

One lamp
126CF GX24Q
132CF, 142CF GX24Q
157CF, 170CF GX24Q

Two lamps
226CF GX24Q
232CF, 242CF GX24Q

Ballast

Electronic

HID
- **U27**‡ - 200V thru 277V

CFL
- **E12** 120V
- **E27** 277V
- **E34** 347V

Distribution

Horizontal Lamp
Rotatable Optical Systems
95% reflectance

AP1 SERIES
One or two lamp
- **2H** IES Type II
- **3H** IES Type III
- **5H** IES Type V

One lamp
- **FT** Forward Throw

AP2 SERIES
One lamp
- **2H** IES Type II
- **3H** IES Type III
- **4H** IES Type IV
- **5H** IES Type V
- **FT** Forward Throw

Options

Rotate Optics
- **RL** Left Facing
- **RR** Right Facing

High Transmission Glass Lens
- **HT** Lens permits 98% light transmission

Lamp
- **CL** Coated HID lamp
- **L** Clear HID lamp

By others Compact fluorescent

Photocontrol
- **PC** Replace suffix "-U27" with line voltage suffix

Quartz Auxiliary
- **Q** Double contact bayonet base Quartz lamp not included

Emergency Ballast
- Dual Function Lamp
For use with one or two CF lamps. Replace voltage suffix "UN" with line voltage suffix, 120V or 277V only

The CF lamp(s) operate off the CF ballast, the lamp selected for dual function also operates off the emergency ballast.

- **EMB** Min. 0°C (32°F)
- **EMX** Min. -18°C (0°F)

Internal House Side Shield
- **SH** For back light cut-off of forward throw (suffix "-FT") optics only. For other distributions use the external shield

Terminal Block & Ground Lug
- **TB** 14 AWG to 6 AWG

Fuse Holder
Supplied with fuse
Replace voltage suffix "-U27" with line voltage suffix
- **F1** Single pole - Line to neutral
- **F2** Two pole - Line to line

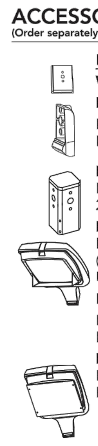
Color
No Suffix Bronze, standard
- **BL** Black
- **SL** Silver
- **WH** White

Designer Colors
Consult Factory

Additional Options Available
Consult Factory

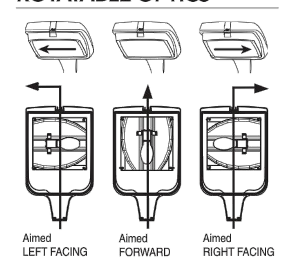
ACCESSORIES

(Order separately)



Description	Catalog #
Wall Mount Bracket	**A-WMB-color**
Round Pole Adapter	
Fits 3" to 4" pole	**A-RPA34-color**
Fits 5" to 6" pole	**A-RPA56-color**
Post Top Adapter	**A-PTF-color**
Fits 2" IPS (2-3/8" o.d.) and 2-1/2" IPS (2-7/8" o.d.) tenons.	
External House Side Shield	
Distribution suffix FT (Forward Throw) Use internal shield	See Options
Distribution suffixes 2H, 3H, 4H & 5H	
Fits A1 & AP1 Series	**A1-HSS**
Fits A2 & AP2 Series	**A2-HS**
Polycarbonate Guard	
Fits A1 & AP1 Series	**A1-LS**
Fits A2 & AP2 Series	**A2-LS**

ROTATABLE OPTICS



Patented

† **Metal Halide** :
Ⓔ EISA: 250W - 400W Pulse Start MH meets Energy Independence Security Act (EISA) requirements.

‡ **Lamp Socket Protector**:
Required in Canada when using 208V, 240V & 480V - add suffix **"-LSP."**

JUNO LIGHTING GROUP by Schneider Electric

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220 Chrysler Drive • Brampton, Ontario • Canada L6S 6B6 • Phone (905) 792-7335 • Fax (905) 792-0064
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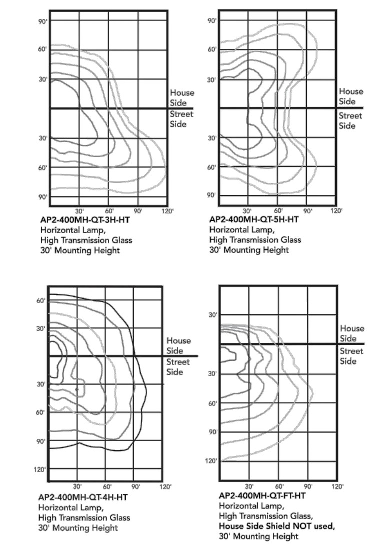
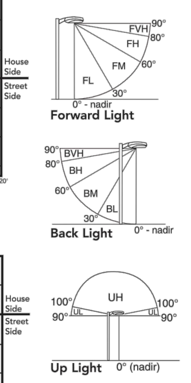
HORIZONTAL LAMP





Optical Assembly			2H	3H	4H	5H	FT*
Lamp			400PS	400PS	400PS	400PS	400PS
Lamp Lumens			40,000	40,000	40,000	40,000	40,000
Forward Light							
Luminaire Lumens			19,510	20,100	20,639	15,051	18,012
% Lamp Lumens			48.8%	50.3%	51.6%	37.6%	45.0%
Low	FL	(0° - 30°)	6.1%	6.2%	5.9%	4.9%	6.5%
Mid	FM	(30° - 60°)	25.9%	25.8%	26.7%	20.0%	22.0%
High	FH	(60° - 80°)	16.4%	17.9%	18.9%	12.5%	16.5%
Very High	FVH	(80° - 90°)	0.4%	0.3%	0.1%	0.3%	0.1%
Back Light							
Luminaire Lumens			10,430	9,556	10,816	14,466	2,539
% Lamp Lumens			26.1%	23.9%	27.0%	36.2%	6.3%
Low	BL	(0° - 30°)	5.8%	5.9%	5.9%	5.0%	3.5%
Mid	BM	(30° - 60°)	15.3%	14.3%	15.7%	19.0%	2.7%
High	BH	(60° - 80°)	4.8%	3.6%	5.3%	11.9%	0.2%
Very High	BVH	(80° - 90°)	0.2%	0.1%	0.1%	0.3%	0.0%
Up Light							
Luminaire Lumens			0	0	0	0	0
% Lamp Lumens			0.0%	0.0%	0.0%	0.0%	0.0%
Low	UL	(90° - 100°)	0.0%	0.0%	0.0%	0.0%	0.0%
High	UH	(100° - 180°)	0.0%	0.0%	0.0%	0.0%	0.0%
Trapped Light							
Luminaire Lumens			10,060	10,344	8,545	10,483	19,448
% Lamp Lumens			25.2%	25.9%	21.4%	26.2%	48.6%

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JUNO lighting

6" METAL HALIDE DOWNLIGHT

OPEN APERTURE with CLEAR SAFETY LENS

ED-17 Metal Halide 70W/100W, Electronic Ballast

M6-(70,100)E-8600C, 8601B

Project:

Fixture Type:

Location:

Contact/Phone:

PRODUCT SPECIFICATIONS

Lamp One 70W or100W ED17 medium base Ceramic or standard Metal Halide lamp • Coated lamps recommended.

Socket Housing Medium base, glazed porcelain, 4kV pulse-rated socket with nickel-plated copper screw shell • Extruded aluminum housing with heat dissipating fins.

Reflector .050" aluminum clear Alzak® reflector or clear Alzak® reflector with black baffle • Other reflector finishes including Wheat (-WT) and Haze (-HZ) are available on a special order basis.

Lens Protective tempered clear glass shield.

Trim Ring White baked enamel on steel • Optional unpainted Self Flanged trim.

Ballast Pre-wired, encased and potted electronic metal halide ballast • High power factor, low THD, lightweight ballast provides excellent line regulation with +/- 0.5% output variation over +/- 10% change in line voltage • Programmed cooling off period minimizes hot restrike time and lamp turn-off function eliminates long term lamp cycling at end of life • Minimum -30°C/-22°F lamp starting temperature • Ballast is mounted to J-Box cover and is replaceable from below ceiling.

Testing All reports are based on published industry procedures; field performance may differ from laboratory performance.

Product specifications subject to change without notice.

INSTALLATION

Mounting Bracket Housings are equipped with vertically adjustable mounting brackets that accept ½"conduit, "C" channels (HB-26 or HB-50), linear flat bars (LB-27) or 26" telescoping Real Nail bar hangers (HB-1).

Junction Box Pre-wired, oversized junction box • U.L. listed/CSA certified for through-branch wiring, maximum 8 No. 12 AWG 90° C branch circuit conductors (4 in, 4 out) • Junction box provided with removable access plates, (4)½" and (1)¾" knockouts and ground wire.

Mounting Frame 16-gauge, die-formed galvanized steel Plaster Frame, excluding mounting brackets • Rough-in section (ballast, junction box, mounting frame, socket housing) fully assembled for ease of installation.

Labels Product thermally protected against improper use of insulation • Union made, AFL-CIO • U.L. listed and CSA certified for damp locations.

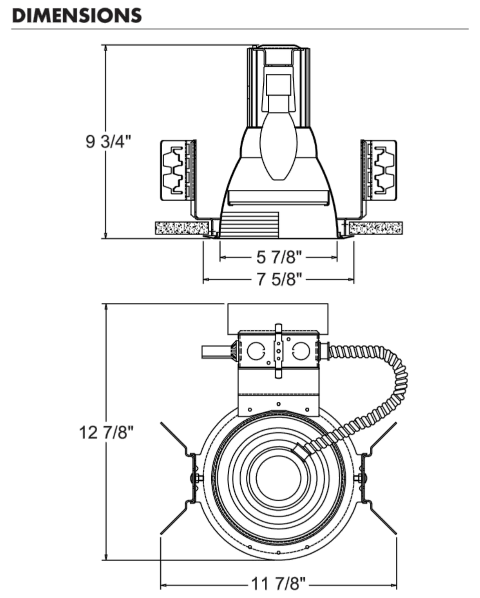
PRODUCT CODES

Catalog Number	Trim Finish	Wattage and Lamp
M6-70E/120V-8600C-WH	Clear Alzak	70W MH ED17
M6-70E/120V-8601B-WH	Clear Alzak, Black Baffle	70W MH ED17
M6-100E/120V-8600C-WH	Clear Alzak	100W MH ED17
M6-100E/120V-8601B-WH	Clear Alzak, Black Baffle	100W MH ED17

For 277V substitute "277V" for "120V" in catalog number.

REV-9/03

DIMENSIONS



6 7/8" CEILING CUTOUT

ENGINEERING DATA

	70W 120V/277	100W 120V/277
ANSI #	M143, M98	M140, M90
Input Current (max.)	0.67A / 0.29A	0.90A / 0.41A
Input Power	79W	110W
Power Factor	High	High
Harmonic Distortion	<15%	<15%
Sound Rating	A	A

ACCESSORIES

Catalog No.	Description
HB-1	Two Real Nail Bar Hangers
HB-26	26" C-Channel Bar Hangers w/ T-Bar Clips (set of 2)
HB-50	50" C-Channel Bar Hangers w/ T-Bar Clips (set of 2)
LB-27	27" Linear Flat Bars (set of 2)

To order, specify catalog number.

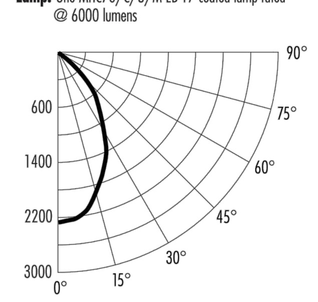
OPTIONS

Catalog No.	Description
F	Fusing
Q	Quartz Restrike (100W max)
SF	Unpainted Self Flange Trim (replace -WH with -SF)

To specify, add to catalog number.

PHOTOMETRIC REPORT

Test Report #: PT08031301
Catalog No: M6-70E-8600C-WH
Total Luminaire Efficiency: 39.3%
Luminaire Spacing Criterion: .9
Luminaire: 6" Recessed Downlight with Protective Glass Shield, Clear Alzak Reflector
Lamp: One MHC70/C/U/M ED-17 coated lamp rated @ 6000 lumens



ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixture
0-30°	1441	24.0	61.1
0-40°	1984	33.1	84.1
0-60°	2340	39.0	99.2
0-90°	2358	39.3	100.0
90-180°	0	0	0
0-180°	2358	39.3	100.0

CANDLEPOWER DISTRIBUTION (Candelas)

Degrees Vertical	Average
0	2290
5	2270
10	2110
15	1916
20	1718
25	1472
30	1144
35	864
40	625
45	376
50	181
55	73
60	21
65	18
70	9
75	0
80	0
85	0
90	0

*Multipliers: 100W - .1.50

LUMINANCE (Average cd/m²)

Degrees	Average Luminance
45	29177
55	6933
65	2313
75	0
85	0

INITIAL FOOTCANDLES (One Unit, 70W, 60.0° Beam)

Distance to Illuminated Plane (Feet)	Footcandles Beam Center	Footcandles Beam Edge	Beam Diameter
6	63.6	20.7	6.9'
8	35.8	11.6	9.2'
10	22.9	7.4	11.5'
12	15.9	5.2	13.9'
14	11.7	3.8	16.2'
16	8.9	2.9	18.5'
18	7.1	2.3	20.8'
20	5.7	1.9	23.1'

(Beam Edge defined as 50% of Maximum Nadir Candlepower)

AVERAGE INITIAL FOOTCANDLES
Multiple Units (Square Array, 60' x 60' Room)
Ceiling 80% Wall 50% Floor 20%

Spacing	RCR1	RCR3	RCR5
5.0'	103	89	77
6.0'	72	62	53
7.0'	58	50	43
8.0'	46	39	34
9.0'	35	30	26
10.0'	26	22	19
12.0'	18	15	13

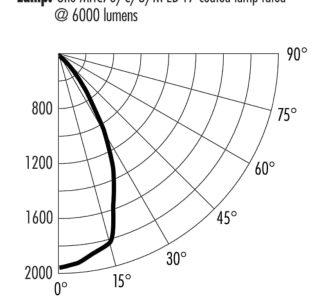
COEFFICIENTS OF UTILIZATION – % (Zonal Cavity Method) Effective Floor Cavity Refl. 20% (ρfc)

ρcc	80			70			50		30		10		0
RCR \ ρw	50	30	10	50	30	10	50	10	50	10	50	10	0
0	47	47	47	46	46	46	44	44	42	42	40	40	39
1	43	42	41	42	42	41	41	39	39	38	38	37	36
2	40	38	37	39	38	36	38	36	37	35	36	34	33
3	37	35	33	36	34	33	35	32	34	32	34	31	31
4	34	32	30	34	32	30	33	30	32	29	31	29	28
5	32	29	28	31	29	27	31	27	30	27	29	27	26
6	30	27	25	29	27	25	29	25	28	25	28	25	24
7	28	25	23	27	25	23	27	23	26	23	26	23	22
8	26	23	22	26	23	22	25	21	25	21	24	21	21
9	24	22	20	24	22	20	24	20	23	20	23	20	19
10	23	20	19	23	20	19	22	19	22	19	22	19	18

ρcc – Ceiling Cavity Reflectance (%) ρw – Wall Reflectance (%)

PHOTOMETRIC REPORT

Test Report #: PT08031302
Catalog No: M6-70E-8601B-WH
Total Luminaire Efficiency: 34.8%
Luminaire Spacing Criterion: .93
Luminaire: 6" Recessed Downlight with Protective Glass Shield, Black Baffle Reflector
Lamp: One MHC70/C/U/M ED-17 coated lamp rated @ 6000 lumens



ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixture
0-30°	1317	21.9	63.1
0-40°	1787	29.8	85.7
0-60°	2077	34.6	99.6
0-90°	2086	34.8	100.0
90-180°	0	0	0
0-180°	2086	34.8	100.0

Note: 0.88 Lumen Depreciation Factor (LDF=0.88) recommended to reflect 10% higher mean lumens of electronically ballasted CMH lamps vs. magnetically ballasted CMH lamps (typically LDF=0.80 for magnetic).

CANDLEPOWER DISTRIBUTION (Candelas)

Degrees Vertical	Average
0	1981
5	1952
10	1887
15	1824
20	1586
25	1325
30	1016
35	749
40	507
45	314
50	156
55	52
60	13
65	8
70	4
75	0
80	0
85	0
90	0

*Multipliers: 100W - 1.50

LUMINANCE (Average cd/m²)

Degrees	Average Luminance
45	24360
55	4976
65	1088
75	0
85	0

INITIAL FOOTCANDLES (One Unit, 70W, 60.8° Beam)

Distance to Illuminated Plane (Feet)	Footcandles Beam Center	Footcandles Beam Edge	Beam Diameter
6	55.0	17.7	7.0'
8	31.0	9.9	9.4'
10	19.8	6.4	11.7'
12	13.8	4.4	14.1'
14	10.1	3.2	16.4'
16	7.7	2.5	18.8'
18	6.1	2.0	21.1'
20	5.0	1.6	23.5'

(Beam Edge defined as 50% of Maximum Nadir Candlepower)

AVERAGE INITIAL FOOTCANDLES
Multiple Units (Square Array, 60' x 60' Room)
Ceiling 80% Wall 50% Floor 20%

Spacing	RCR1	RCR3	RCR5
5.0'	91	79	67
6.0'	63	55	47
7.0'	51	45	38
8.0'	41	35	30
9.0'	31	27	23
10.0'	23	20	17
12.0'	16	14	12

COEFFICIENTS OF UTILIZATION – % (Zonal Cavity Method) Effective Floor Cavity Refl. 20% (ρfc)

ρcc	80			70			50		30		10		0
RCR \ ρw	50	30	10	50	30	10	50	10	50	10	50	10	0
0	41	41	41	40	40	40	39	39	37	37	35	35	35
1	38	37	37	38	37	36	36	35	35	34	34	33	32
2	35	34	33	35	34	32	34	32	33	31	32	30	30
3	33	31	30	32	31	29	31	29	31	28	30	28	27
4	31	28	27	30	28	27	29	26	29	26	28	26	25
5	28	26	25	28	26	25	27	24	27	24	26	24	23
6	26	24	23	26	24	23	26	22	25	22	25	22	22
7	25	23	21	24	22	21	24	21	24	21	23	21	20
8	23	21	19	23	21	19	23	19	22	19	22	19	19
9	22	20	18	22	20	18	21	18	21	18	21	18	17
10	20	18	17	20	18	17	20	17	20	17	19	17	16

ρcc – Ceiling Cavity Reflectance (%) ρw – Wall Reflectance (%)

JUNO lighting

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AmeriCU - Approved for Construction Date

KEPLINGER FREEMAN ASSOCIATES
LANDSCAPE ARCHITECTURE & LAND PLANNING
6320 FLY ROAD, SUITE 201 EAST SYRACUSE, NEW YORK 13057
PHONE: (315) 445-7980 FAX: (315) 445-7981

RZ Engineering, PLLC
6320 FLY ROAD SUITE 201
EAST SYRACUSE, NY 13057
PH: 315.432.1089 FAX: 315.445.7981

Client:
Canal Properties II Inc., LLC
125 High Rock Avenue
Saratoga Springs, NY 12866

Contact: Devin Dal Pos
(518) 306-3747
(212) 401-4759

AmeriCU CREDIT UNION

871 Arsenal Street
Watertown, New York

REVISIONS

Drawn By:	S.R.C.
Checked By:	E.G.K.
KFA Proj. No.:	31095
Date:	11 May 2012
Scale:	AS NOTED

Title:

SITE LIGHTING DETAILS

L1.9A

H6.1.14

AccuLite

POLARIS™

DR - HALF ROUND

FULL CUT-OFF SECURITY LIGHTING

WIDE THROW OPTICS

Project: _____

Fixture Type: _____

Location: _____

Contact/Phone: _____

To create the catalog number fill in the grey "Product Codes" boxes below

Cat. No.: DR ____ ____ - ____
Series Lamp Volts Beam Options

PRODUCT DESCRIPTION

The Polaris™ decorative wall mounted security and accent luminaire is offered with wide throw optics.

IDA Seal of Approval The full cut-off optics of Polaris™ downlighting luminaires meet the International Dark Sky Association specifications for full cut-off luminaires

PRODUCT SPECIFICATIONS

Optics IES Full cut-off wide throw reflectors

"Dark Sky" Half Sphere Styling Polaris luminaires with wide throw optics meets IES and International Dark Sky Association full cut-off standards

"Easy-Install" Mounting Mounts to a standard 3 1/2" or 4" junction box • Using the built-in level, align the bracket and secure it • Hang the luminaire and secure with heavy duty set screws

Construction Heavy duty die cast aluminum housing • Concealed cover screws secure the door assembly • Lens is secured mechanically and sealed with a silicone rubber gasket, no silicone sealants are used • Stainless steel external hardware • Tempered glass lens

Emergency Lighting* Emergency CF ballasts for 0°C to 55°C or -18°C to 55°C • 12V emergency circuit (CF & HID) for one or two MR11 lamps • 120V emergency circuit (CF & HID) for double contact bayonet base quartz lamps

Auxiliary Lighting* Double contact bayonet base quartz lamp • Cold start/Hot restrike • Hot restrike only

Lampholder HID: Specification grade porcelain, medium base • Compact Fluorescent: 4-pin electronic

Finish Polyester powder coat finish • Bronze, black or white

Ballasts Low temperature starting magnetic • Probe Start MH -30°C, Pulse Start MH -40°C, HPS -40°C • Electronic CF -18°C

Certification Certified to UL1598/CSA C22.2 250 • Suitable for wet locations • IDA Full Cut-Off

PHOTOMETRICS

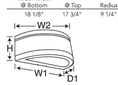
Optical Assembly			Wide Throw	DR150PS-QT-L
Lamp			150PS	
Lamp Lumens			12,500	
Forward Light				
Luminaire Lumens			4,651	
% Lamp Lumens			37.2%	
Low	FL	(0° - 30°)	7.75%	
Mid	FM	(30° - 60°)	27.65%	
High	FH	(60° - 80°)	1.9%	
Very High	FVH	(80° - 90°)	0.1%	
Back Light				
Luminaire Lumens			4,370	
% Lamp Lumens			35.0%	
Low	BL	(0° - 30°)	7.8%	
Mid	BM	(30° - 60°)	25.1%	
High	BH	(60° - 80°)	2.1%	
Very High	BVH	(80° - 90°)	0.1%	
Up Light				
Luminaire Lumens			0	
% Lamp Lumens			0.0%	
Low	UL	(90° - 100°)	0.0%	
High	UH	(100° - 180°)	0.0%	
Trapped Light				
Luminaire Lumens			3,478	
% Lamp Lumens			27.8%	

Wide throw distribution
IES Classification: Type I
150W clear pulse start metal halide
LU0704-018
Cut Off Classification: Full Cut-off
Clear lamp. Lumen rating - 12,500
Downward Efficiency 86.8%
Maximum Candela Angle: 35H / 35V

DIMENSIONS

DR Series

W1 Width Width @ Bottom	W2 @ Top	R Radius	H Height
18 1/8"	17 3/4"	9 1/4"	7 1/8"



* 1. See "EMERGENCY LIGHTING - EMERGENCY BALLAST" specification sheet H6.1.1 for full description.
2. See "EMERGENCY LIGHTING - EMERGENCY CIRCUIT" specification sheet H6.1.2 for full description.
3. See "AUXILIARY LIGHTING" specification sheet H6.1.4 for full description.

JUNO LIGHTING GROUP by Schneider Electric

H6.1.14

To create the catalog number fill in the grey "Product Codes" boxes below

Cat. No.: DR ____ ____ - ____
Series Lamp Volts Beam Options

PRODUCT CODES

Fill in the red lines (use the bold type below, options are listed on the following page)

Series	Lamp (Watts/Type)	Volts	Reflector	Options
DR			-	
DR	**Pulse Start Metal Halide†** ED17 - Medium base **50PS, 70PS, 100PS, 150PS**	**Magnetic Ballast** 35W & 50W HPS lamps **- 120** 120V **- 277** 277V **- 347** 347V	Wide Throw **No suffix**	**Lamp** **- L** Clear H.I.D. **- CL** Coated H.I.D. By others Compact Fluorescent
	Probe Start Metal Halide† BD17 - Medium base **[175]MH**	50W thru 150PS, 175W MH, 70W thru 150W HPS **- QT1** Quad Tap 120V, 208V, 240V, 277V		**Photocontrol** **- PC** On Multi-Tap ballasts replace "-QT" & "-TT" with the line voltage suffix
	High Pressure Sodium B17 - Medium base **35HP, 50HP, 70HP 100HP, 150HP**	**- TT** Tri Tap 120V, 277V, 347V		**Fuse** **- F1** Single pole line to neutral (must specify voltage) **- F2** Two pole line to line (must specify voltage)
	Compact Fluorescent One Lamps - GX24Q Base **26CF, 32CF, 42CF**	100W thru 175W lamps **- 480;** - 480V		**Frosted Lens** **- FG** Frosted glass bottom lens
	Two Lamps - GX24Q Base **226CF, 232CF, 242CF**	**Electronic Ballast** 26W thru 42W CF **- UN** - 120V/277V, **- E12** 120V **- E27** 277V **- E34** 347V		**Tamper Resistant Hardware** **- TP** Tamper resistant screws

Emergency Ballast, Dual Function Lamp*
Specify line voltage, 120V or 277V
For use with one or two CF lamps
The CF lamp(s) operate off the CF ballast, the lamp selected for dual function also operates off the emergency ballast.
- EMB Minimum 0°C
- EMX Minimum -18°C

Emergency Ballast, Dedicated Emergency Lamp*
Specify line voltage, 120V or 277V
For use with two CF lamps
One lamp operates off the CF ballast and is dedicated to general lighting, the second lamp is dedicated to emergency lighting and operates off the emergency ballast.
- EMBD Minimum 0°C
- EMXD Minimum -18°C

Emergency Circuit, 120V Quartz Lamp*
For use with HID & CF luminaires
Quartz lamp not included
Double contact, bayonet base Quartz lamp should not exceed wattage of HID lamp. For 35W - 100W use 100W quartz lamp.
- ES Socket only, for external 120V emergency power supply

Emergency Circuit, 12V MR11 Halogen Lamp*
For use with HID & CF luminaires
Requires remote battery pack
MR11 lamp(s) included,
Field aimable 2 pin G4 base MR11 lamp, 35W lamp(s) supplied, 12VDC supply
- DC12 With one MR11 lamp
- 2DC12 With two MR11 lamps
By others Remote Battery Pack

Auxiliary Quartz Lighting*
Double contact, bayonet base
Quartz lamp should not exceed wattage of HID lamp. For 35W thru 100W use 100W quartz lamp.
Quartz lamp not included.
For use with HID luminaires
- Q Cold Start/Hot Restrike
- HQ Hot Restrike only

Color
No suffix Bronze (Standard)
- BL Black
- WH White

* 1. See "EMERGENCY LIGHTING - EMERGENCY BALLAST" specification sheet H6.1.1 for full description.
2. See "EMERGENCY LIGHTING - EMERGENCY CIRCUIT" specification sheet H6.1.2 for full description
3. See "AUXILIARY LIGHTING" specification sheet H6.1.4 for full description.

† Metal Halide Lamps
EISA - Pulse Start MH: 150W wet location luminaires are EISA exempt.

ITEMS MARKED WITH A MAPLE LEAF ARE ONLY AVAILABLE IN CANADA
175W Probe Start MH lamps do not meet the EISA standard.

JUNO LIGHTING GROUP by Schneider Electric
1300 S. Wolf Road • Des Plaines, IL 60018 • Phone (847) 827-9880 • Fax (847) 827-2925
220 Chrysler Drive • Brampton, Ontario • Canada L6S 6B6 • Phone (905) 792-7335 • Fax (905) 792-0064
Visit us at www.junolightinggroup.com

Specifications are subject to change with out notice
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WJM SQUARE NON-TAPERED STEEL (SS)

POLE SHAFT

The pole shaft is one piece construction, being fabricated from a weldable grade carbon steel structural tubing which has a uniform wall thickness of 11 gauge (0.1196"). The pole shaft material shall conform to ASTM A-500 Grade C with a minimum yield strength of 50,000 psi. The pole shaft has a full length longitudinal resistance weld and is uniformly square in cross-section with flat sides, small corner radii and excellent torsional properties.

BASE PLATE

The anchor base is fabricated from structural quality hot rolled carbon steel plate that meets or exceeds a minimum yield strength of 36,000 psi. The anchor base telescopes the pole shaft and is circumferentially welded top and bottom. All welds are performed in accordance with the American Welding Society specification AWS D1.1, latest edition.

HANDHOLE

An oval reinforced gasketed handhole, having a nominal 3" x 5" inside opening, located 1'-6" above base, is standard on all poles. A grounding provision is located inside the handhole ring.

ANCHOR BOLT

Anchor bolts are fabricated from commercial quality hot rolled carbon steel bar that meets or exceeds a minimum yield strength of 55,000 psi. Four properly sized anchor bolts, each with two regular hex nuts and washers, are furnished and shipped with all poles unless otherwise specified. Anchor bolts shall have the threaded end galvanized a minimum of 8 inches in accordance with ASTM A-153. Fully galvanized anchor bolts are available upon request.

FINISH

Standard - All exterior metal surfaces are mechanically cleaned to remove all oxides and contaminants prior to coating. The standard finish is a polyester thermosetting powder coating applied to the surface of the substrate to a minimum of 3 mils for all color finishes. Galvanizing is available upon request.

SS4001120-BZ-DM10-BC

CATALOG LOGIC	CODE	EXPLANATION
Series:	SS	Square Non-Tapered Steel Poles
Base Diameter:	400	4.0" Base Bottom Diameter
Gauge:	11	11 gauge thickness
Nominal Height:	20	20 feet tall
Finish:	BZ	Bronze Finish Paint
Mounting Designation:	DM10	Drilled for 1 Luminaire
Options:	BC	Base Cover

HEIGHT (ft.)	POLE SHAFT (in.) x (ft.)	GAUGE	HANDHOLE SIZE (in.)	ANCHOR BOLT (in.) x (in.) x (in.)	BOLT CIRCLE (in.)
20	4.0 x 20.0	11	3" x 5"	0.75 x 17 x 3	8

EPA	80 MPH (ft.²)	90 MPH (ft.²)	100 MPH (ft.²)	WEIGHT	SHIP WT. (lbs.)
	12	9	6		151

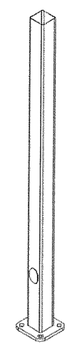
WJM SQUARE NON-TAPERED STEEL (SS)

POLE SHAFT

The pole shaft is one piece construction, being fabricated from a weldable grade carbon steel structural tubing which has a uniform wall thickness of 11 gauge (0.1196"). The pole shaft material shall conform to ASTM A-500 Grade C with a minimum yield strength of 50,000 psi. The pole shaft has a full length longitudinal resistance weld and is uniformly square in cross-section with flat sides, small corner radii and excellent torsional properties.

BASE PLATE

The anchor base is fabricated from structural quality hot rolled carbon steel plate that meets or exceeds a minimum yield strength of 36,000 psi. The anchor base telescopes the pole shaft and is circumferentially welded top and bottom. All welds are performed in accordance with the American Welding Society specification AWS D1.1, latest edition.



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ANCHOR BOLT

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FINISH

Standard - All exterior metal surfaces are mechanically cleaned to remove all oxides and contaminants prior to coating. The standard finish is a polyester thermosetting powder coating applied to the surface of the substrate to a minimum of 3 mils for all color finishes. Galvanizing is available upon request.

SS4001120-BZ-DM28-BC

CATALOG LOGIC	CODE	EXPLANATION
Series:	SS	Square Non-Tapered Steel Poles
Base Diameter:	400	4.0" Base Bottom Diameter
Gauge:	11	11 gauge thickness
Nominal Height:	20	20 feet tall
Finish:	BZ	Bronze Finish Paint
Mounting Designation:	DM28	Drilled for 2 Luminaires at 180°
Options:	BC	Base Cover

HEIGHT (ft.)	POLE SHAFT (in.) x (ft.)	GAUGE	HANDHOLE SIZE (in.)	ANCHOR BOLT (in.) x (in.) x (in.)	BOLT CIRCLE (in.)
20	4.0 x 20.0	11	3" x 5"	0.75 x 17 x 3	8

EPA	80 MPH (ft.²)	90 MPH (ft.²)	100 MPH (ft.²)	WEIGHT	SHIP WT. (lbs.)
	12	9	6		151

WJM SQUARE NON-TAPERED STEEL (SS)

POLE SHAFT

The pole shaft is one piece construction, being fabricated from a weldable grade carbon steel structural tubing which has a uniform wall thickness of 11 gauge (0.1196"). The pole shaft material shall conform to ASTM A-500 Grade C with a minimum yield strength of 50,000 psi. The pole shaft has a full length longitudinal resistance weld and is uniformly square in cross-section with flat sides, small corner radii and excellent torsional properties.

BASE PLATE

The anchor base is fabricated from structural quality hot rolled carbon steel plate that meets or exceeds a minimum yield strength of 36,000 psi. The anchor base telescopes the pole shaft and is circumferentially welded top and bottom. All welds are performed in accordance with the American Welding Society specification AWS D1.1, latest edition.

HANDHOLE

An oval reinforced gasketed handhole, having a nominal 3" x 5" inside opening, located 1'-6" above base, is standard on all poles. A grounding provision is located inside the handhole ring.

ANCHOR BOLT

Anchor bolts are fabricated from commercial quality hot rolled carbon steel bar that meets or exceeds a minimum yield strength of 55,000 psi. Four properly sized anchor bolts, each with two regular hex nuts and washers, are furnished and shipped with all poles unless otherwise specified. Anchor bolts shall have the threaded end galvanized a minimum of 8 inches in accordance with ASTM A-153. Fully galvanized anchor bolts are available upon request.

FINISH

Standard - All exterior metal surfaces are mechanically cleaned to remove all oxides and contaminants prior to coating. The standard finish is a polyester thermosetting powder coating applied to the surface of the substrate to a minimum of 3 mils for all color finishes. Galvanizing is available upon request.

SS4001120-BZ-DM29-BC

CATALOG LOGIC	CODE	EXPLANATION
Series:	SS	Square Non-Tapered Steel Poles
Base Diameter:	400	4.0" Base Bottom Diameter
Gauge:	11	11 gauge thickness
Nominal Height:	20	20 feet tall
Finish:	BZ	Bronze Finish Paint
Mounting Designation:	DM29	Drilled for 2 Luminaires at 90°
Options:	BC	Base Cover

HEIGHT (ft.)	POLE SHAFT (in.) x (ft.)	GAUGE	HANDHOLE SIZE (in.)	ANCHOR BOLT (in.) x (in.) x (in.)	BOLT CIRCLE (in.)
20	4.0 x 20.0	11	3" x 5"	0.75 x 17 x 3	8

EPA	80 MPH (ft.²)	90 MPH (ft.²)	100 MPH (ft.²)	WEIGHT	SHIP WT. (lbs.)
	12	9	6		151

AmeriCU - Approved for Construction Date

KEPLINGER FREEMAN ASSOCIATES
LANDSCAPE ARCHITECTURE & LAND PLANNING
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REGISTERED LANDSCAPE ARCHITECT EDWARD GILBERT REPASKY 001834 STATE OF NEW YORK

Client:
Canal Properties II Inc., LLC
125 High Rock Avenue
Saratoga Springs, NY 12866

Contact: Devin Dal Pos
(518) 306-3747
(212) 401-4759

AmeriCU CREDIT UNION

871 Arsenal Street
Watertown, New York

REVISIONS

Drawn By:	S.R.C.
Checked By:	E.G.K.
KFA Proj. No.:	31095
Date:	11 May 2012
Scale:	AS NOTED

Title:

SITE LIGHTING DETAILS

L1.9B

SECTION 31 1000 – SITE DEMOLITION

PART 3 - EXECUTION

3.1 PERMITS

A. Contractor shall secure all necessary demolition permits including fees and licenses at his own expense.
B. Notify local agencies, such as fire, police, etc., that have jurisdiction.

3. 2 DUST CONTROL

A. Prevent dust and dirt from demolition operations from blowing onto adjacent properties and "items to remain".
B. Contractor shall apply dust surfracant/suppression agent such as Syntech 2002 to control dust as required.

3.3 DISCONNECT UTILITY SERVICES

A. Disconnect and remove all existing utilities to structures to be demolished unless otherwise noted. Obtain approval of respective utility owners/vendors before capping, removing or shutting off gas, water, sanitary, storm drainage, electrical, telecommunications or other services.
B. Execute work in accordance with applicable utility owners/vendors regulations and directives.

3.4 DEMOLITION

A. Pavements and Other Structures: Define neat regular lines for cutting, saw cut only, protect edges of installations to remain, extend limits of cutting and removal to sound joints or other limits required to remove all adjoining loose, broken, or deteriorating paving, provide a sound stable edge for adjoining installation of new paving.
B. Storm Drains: Remove existing active storm drain system components only after temporary or permanent replacement facilities are in place and operative to collect and channel storm water to required outfalls.
C. Salvage and Stockpile: Carefully remove and protect any existing improvements to be reinstalled as part of the work, including any improvements which may be reinstalled at Contractor's discretion. Contact and coordinate with Owner in advance on salvaging and stockpiling, if any, indicated on drawings, of other existing improvements to be salvaged for future Owner use, stockpile in approved locations on property as determined by Owner.
D. Tree and Vegetation Removal: Clear, grub and remove all existing tree, shrub and other woody vegetation identified on the drawings or otherwise required to completely clear and prepare the site within the perimeter lines and limits of site excavation and regrading work. Protect all trees not identified for removal. Completely pull, grub and otherwise remove tree stumps/woody root systems. All vegetation and woody material stumps shall be legally disposed of off-site.
E. Rubble: Concrete, asphalt rubble and other hard-fill type debris from removal work shall be removed and legally disposed of off-site.
F. General Debris: Plastics, metals, garbage and other general debris shall be removed from the site and properly disposed of.
G. The use of explosives is not permitted for any demolition or removal work.

3.5 REMOVAL

A. Remove from site all debris and all materials not indicated to be salvaged. All removed materials become property of Contractor who shall legally dispose of materials.

END OF SECTION 31 1000

SECTION 31 1001 – SITE PREPARATION

PART 3 - EXECUTION

3.1 GENERAL JOB CONDITIONS

A. Schedule and conduct work to permit access to adjoining Owner and other properties and facilities at all times and in accordance with any phasing requirements of the contract. Do not impede access by emergency vehicles and forces. Notify and coordinate with Owner in advance of work and in advance of limiting or detouring access to or use of any other facilities. Approximate limits of work are as shown or implied on drawings; do not intrude onto other site areas more than reasonably necessary for access, staging, storage and other incidental aspects of work.
B. Verify all existing lines, limits, distances, dimensions, elevations, and other conditions affecting work required. Comply with special instructions on drawings. Notify Architect immediately of any conditions encountered which appear to be inconsistent with work requirements, so that such matters may be resolved. Verify any existing underground utility locations and conditions prior to excavation, contact and secure UFPO services as required (1-800-962-7962). Excavate carefully in all locations close to known or likely underground utility lines.
C. In addition to all requirements of the General Conditions and all other public safety regulations and requirements applicable to the work, exercise caution in all sitework access and operations in anticipation that public pedestrian and vehicular traffic and activity will occur in proximity to the work and to access routes to and from the work at all times.
D. Contractor is held to have visited site and to have identified, investigated and measured surface and subsurface conditions and quantities involved in and affecting the scope, complexity and cost of the work prior to submission of a bid. Contractor may, for his information, make test excavations during bidding period. Contact Architect for approval prior to any such excavation and repair test holes as directed.
Contractor shall use his own judgment in interpreting all surface and subsurface conditions, no responsibility is assumed by Owner or Architect for survey information, lack of survey information, or actual conditions encountered. Any geotechnical evaluation reports with soil test boring and pit logs, descriptions and related data and recommendations on existing subsurface and construction conditions included in the contract documents are made available for the convenience of the Contractor. If included, such reports are not intended as a representation or warranty of the accuracy of such information or the continuity of conditions between any soil boring and test pit locations. It is expressly understood that the Owner and Architect shall not be responsible for interpretations or conclusions drawn from the reports by the Contractor. Claims for extra compensation or inability to perform work in accordance with Contract Documents, or for an extension of time will not be considered for any alleged or actual differences between site surface or subsurface conditions and such information and data, except as may be provided elsewhere in the Contract Documents. Owner may elect alternative methods of accomplishing work in event that variations in sitework conditions or unknown conditions are encountered.
E. Avoid spills and littering of earth, rubble or other debris on Owner or other public streets or other roadways; clean up any spills promptly and regularly.
F. Notify Architect in writing of any existing damage to "items to remain" prior to commencing work.

3.2 LAYOUT, LINES, LEVELS, AND FIELD CHECKS
A. Employ licensed Engineer or Surveyor to stake out all work.
B. Set hubs, offset lines, and grade stakes where spot elevations shown, at breaks in grade, and as otherwise required.
C. Run lines from existing buildings, monuments, and features shown on drawings. Establish base lines. Mark well and protect during construction. Run levels from benchmarks. Verify benchmark elevations. Advise Architect of results before commencing work.
D. Accurately locate all new buildings, roads, paved areas, walks, features, etc. Advise Architect of any discrepancies, prior to commencing work.

3.3 PROTECTION
A. Plank all walks, pavements, and curbs to be crossed by equipment.
B. Protect Persons and Property: provide temporary fencing, barricades, signs, signals, and other measures and devices for protection of persons, property, existing improvements to remain and traffic and other activities in and adjoining the site of the work, in accordance with all applicable laws and regulations, at all times during work. When work areas are to be unattended, check that open excavations or other unsafe areas or conditions are adequately barricaded and that signals are operative. Perform work to prevent erosion, flooding, undermining, lateral movement, settlement, or other instability or damage of adjoining areas of the site and adjoining improvements. Make certain that cut or fill embankments slopes are stable during overnight or other periods of work interruption.
C. Protect Utilities: Protect and preserve in operating condition all active surface and subsurface utilities indicated on the drawings or which may otherwise exist or be encountered within or adjacent to the work. Excavate carefully near any known or suspected utility lines. Cooperate with other contractors performing removals or replacements of utilities. Particularly note the instructions on the drawings to verify location and/or depth of certain utility lines. Secure UFPO services to locate utilities.
Damage to any utility lines or structures resulting from work shall be repaired by at the expense of the contractor, to the satisfaction of the Owner, Architect, utility company or other authority having jurisdiction.
If active utilities are cut, broken, or damaged during work, immediately take all steps necessary to avoid endangering persons or property. Notify Owner, Architect and affected utility company or other jurisdiction to obtain a decision and/or assistance in repair of damaged facilities.
Remove, plug or cap as required any active and abandoned utilities encountered during construction operations or shown on drawings. If contractor is required to reroute/replace any portions of existing active utility lines, determine connection points and otherwise plan work in advance so that service is interrupted as briefly as possible. Where existing lines are to be abandoned, remove any portions which may interfere with or may be unstable or prone to settle under or along new structures or pavements, refer to drawings. Other portions may be abandoned in-place.
In event that water, storm sewer, sanitary sewer, or other utility lines are broken, or that springs, ground water, or other sources of water are encountered, take necessary steps to immediately divert water to prevent erosion, undermining or other damage to existing improvements or construction operations. Permanent replacement, reconstruction or other corrective measures are contractor's responsibility. Methods subject to approval of architect and other having jurisdiction.
C. Protect Trees: protect all trees and shrubs in and adjoining work areas which are not identified to be removed. Do not store or stockpile earth or other materials or equipment and do not operate heavy equipment more than necessary within the branching limits of trees.

3.4 CLEARING AND GRUBBING

A. Unless otherwise noted on the drawings, remove promptly from site and legally dispose of all trees, logs, stumps, roots, brush, vegetation, rubbish, stones, boulders and other objectionable or perishable materials within grading limits to 1'-6" below finish grade or to original grade whichever is the greater depth.
B. No burning of any cleared and grubbed material shall be permitted.

END OF SECTION 31 1001

SECTION 31 1413 – TOPSOIL

PART 2 - PRODUCTS

2.1 TOPSOIL

A. On-site Topsoil: On-site topsoil is limited and inconsistent in quality. All existing topsoil shall be removed from the site. Contractor shall assume using all imported soil.
B. Imported Topsoil: Supply from approved off-site source and meet the following conditions:
   1. Natural, fertile, friable granular soil characteristic of productive soils in vicinity. Uniform in composition and texture. Clean, free from subsoil, clay lumps, stones, weeds, stumps, roots, toxic substances and debris of similar substances 1 inch or more in greatest dimension.
   2. Topsoil pH value of 5.5 to 7.5 or able to be amended by contractor.
   3. Containing not less than 5 percent nor more than 20 percent organic content in that portion of a sample passing a 1/4 inch sieve when determined by the wet combustion method on a sample dried at 105 degrees.
   4. Soluble salts not to exceed 500 parts per million.
   5. Containing the following gradations:

SIEVE DESIGNATION	% PASSING
1"	90-100
No. 200	5-10

PART 3 - EXECUTION

3.1 TOPSOIL STRIPPING

A. Mow lawn areas prior to stripping topsoil. Investigate depth of organic soils in each designated area as the work progresses and strip topsoil accordingly. Depth may vary over the site of the work. Strip full depth of topsoil from all building areas, areas to be paved, and areas of grade change.
B. Stockpile in approved on-site location where material will not interfere with other work and guard against erosion and sedimentation onto adjoining work areas or off-site areas.
C. Do not lift and mix subsoil material with topsoil. Remove debris and other foreign material and large stones encountered as work progresses. Ordinary grass sods and small roots, twigs and other woody material need not be removed but shall be thoroughly broken up and intermixed with soil during handling operations.
D. Excess topsoil is the property of the Owner. Stockpile where directed by owner.
E. All topsoil shall be screened prior to reuse/respreading.

END OF SECTION 31 1413

SECTION 31 2213 – ROUGH GRADING

PART 3 - EXECUTION

3.1 ROUGH GRADING

A. Subgrade: Depth below finished grade as required for topsoil or pavement.
B. Accuracy: Set grade stakes where spot elevation shown, at breaks in grade, along drainage "swales" and as otherwise required to correctly grade the area according to elevations shown on plans.
C. Completion of rough grading: Obtain Architect's approval before spreading topsoil or preparing pavement subgrade.
D. Subgrade rolling: All paved areas. In areas inaccessible to roller, use mechanical tamps. Refer to Section 02220, Sitework Excavation, Backfilling and Compacting for compaction requirements.
E. Avoid excessive working of subgrade or use of equipment that causes pumping or weaving.

END OF SECTION 31 2213

SECTION 31 2216 – FINE GRADING

PART 3 - EXECUTION

3.1 SPREAD TOPSOIL

A. Entire unpaved area within contract limits, unless otherwise noted.
B. Spread, compact and manipulate topsoil to a minimum of thickness as detailed after compaction to smooth draining grades true to elevations shown or indicated on drawings. Generally, all areas shall receive 4 inch topsoil thickness, plant beds shall receive 18 inch minimum topsoil thickness, and all athletic field areas shall receive a 6 inch thickness of topsoil/compost mixture (Athletic Field Topsoil Mix). Refer to drawings for verification and any special requirements for use of stripped topsoil.
C. Excess topsoil: Excess topsoil is the property of the owner. Excess topsoil shall remain in the approved topsoil stockpile area.

3.2 FINE GRADE OUTSIDE BUILDING LINES

A. Disk or harrow 4 inch depth where topsoil has been spread and 4 inch depth in disturbed areas where no grade change occurs.
B. Remove all stones 1 inch diameter and larger, roots, rubbish and all other foreign matter.
C. Grade to exact well draining grades indicated. Maximum allowed tolerances:
   1. Unpaved areas - grade surface areas to receive lawn or plantings to a tolerance of plus or minus 0.10 foot. Swales and ditches to a tolerance of plus or minus 0.05 foot.
   2. Paved areas-shape subgrade for pavement to a tolerance of plus or minus 0.05 foot.
   3. Exterior steps and ramps--finished subgrade to a tolerance of plus or minus 0.05 foot.

END OF SECTION 31 2216

SECTION 31 2301 – SITEWORK EXCAVATION, BACKFILLING and COMPACTING

PART 1 GENERAL
1.1 EXAMINATION OF EXISTING GRADES
A. Examine grades and notify Architect of discrepancies, if any, before proceeding. Start of work implies acceptance of existing grades.

1.2 SUBMITTALS

A. Material Certificates (MC) including a certified laboratory sieve analysis (LA) bearing name and location of quarry. Sample (S) of material required (approximate volume 1 cubic foot) in a waterproof container permanently labeled to show source. Submit for the following materials:
   1. Subbase Material: (MC), (LA) including moisture/density curves and (S)
   2. Coarse Aggregate Fill: (MC) and (S)
   3. Drainage Fill: (MC), (LA) and (S)
B. Manufacturers data (MD) and product sample (S) required for the following materials:
   1. Stabilization Fabric: (MD) and (S)

1.3 SETTLEMENT

A. Repair to proper grade any slab, pavement, utility, structure or lawn adversely affected by settlement or heaving within two-years after the date of substantial completion at no expense to the owner.

1.4 TIMING

A. Install drainage system prior to or concurrent with road excavation to prevent/limit downstream flooding and erosion/sedimentation, to allow trench or general fill settlement, and to allow installation of subbase materials for construction.

1.5 GENERAL DEWATERING

A. The Contractor shall dewater all excavations when water has entered the excavation or at the direction of the Engineer. The Contractor shall provide all equipment necessary to complete the work.

1.6 USAGE OF ELECTRONIC DOCUMENTS FOR MACHINE CONTROL EQUIP.

A. The contractor may use any type of GPS machine control equipment and systems that results in achieving the proposed grading requirements. The contractor shall convert the electronic data provided by the Architect into the format required by their system.
B. No guarantee is made that the data systems used by the architect will be directly compatible with the systems used by the contractor.
C. Contractor understands that any manipulation of the electronic data provided by the architect shall be at their own risk. The electronic documents are provided as a convenience to the contractor in connection with the contractor's responsibilities and obligations relating to the project. The Owner and Architect shall not be construed to have performed any services in connection with the Contractor's use of the electronic files provided and shall have no liability for any aspect of their use, and has no contractual relationship in connection to their use, other than set forth herein.

PART 2 PRODUCTS

2.1 MATERIALS

A. Excavated Subsoil/Soil Fill: Approved, free of frost trash, stumps, trees, roots, sod, muck, etc. If suitable excavated material is insufficient to meet fill requirements, furnish additional material at contractor's expense, subject to approval by architect. Thoroughly break up and condition soils for layered placement and compaction in fill areas.
B. Drainage Fill: Crushed stone or washed crushed gravel. NYSDOT #1, Table 703-4. Clean, durable, of uniform quality throughout.

Standard ASTM Sieve Size	% Passing by Weight
1 inch (25 mm)	100
1/2 inch (12.5 mm)	90-100
1/4 inch (6.3 mm)	0-15

C. Stabilization Fabric: Polypropylene fiber Mirafi Celanese Fibers 500x, Amoco 2002, Carthage Mills FX-55 or approved equal.
D. Coarse Aggregate Fill: Clean run-of-bank gravel, 3 inch maximum size. Able to be compacted to compaction standards herein and free from organic and other deleterious materials. Where any such fill is deeper than 24 inches, a coarser, well-graded run-of-bank material with particle sizes ranging up to 6 inches may be used in the lower layers.

Standard ASTM Sieve Size	% Passing by Weight
1/4 inch (6.3 mm)	30-100
No. 40 (.425 mm)	0-70
No. 200 (.075 mm)	0-10

E. Subbase Course Material: Crushed limestone conforming to NYSDOT Section 304-2.02 Subbase Course Type 2 well graded from coarse to fine to produce tightly bonded material when compacted, and free from soil, organic materials or other contamination.

Standard ASTM Sieve Size	% Passing by Weight
2 inch (50 mm)	100
1/4 inch (6.3 mm)	25-65
No. 40 (.425 mm)	5-40
No. 200 (.075 mm)	0-10

F. Topsoil: Refer to Section 311413 - Topsoil Stripping.
G. Oversized Subbase Course Material: Crushed limestone conforming to NYSDOT Section 304, Subbase Course, Type 1 Gradation with 100% passing a 3 inch sieve and well graded from coarse to fine to produce a rightly bonded material when compacted, and free from soil, organic material or other contaminants.

PART 3 EXECUTION

3.1 GENERAL
A. Banks and sides: Angle of recline or sheathing, shoring, and bracing as required for safety and conforming to all applicable laws, rules, regulations and codes.
B. Protection: Provide lights and barricades to properly protect persons and property. Assume full responsibility for all accidents during the course of work.

3.2 UNCLASSIFIED EXCAVATION
A. Includes all earth and miscellaneous material encountered.
B. Cut to exact elevations and grade. If soil becomes saturated and loses its structure in an area, cease work in that area, after establishing positive surface drainage, until surface dries. When the area has stabilized, continue excavation. Transport to fill areas.
C. Excess excavated material and excavated material not suitable for use as general fill shall be removed from the site. Location and placement methods to be approved.
D. If stockpiled, pile in manner and location that will not impede the work of any other contractor, as directed by the Architect.
E. Excavation Classifications - The following classifications of excavations will be made when rock is encountered:
   1. Earth excavation includes excavation of pavements and other obstructions visible on surface: underground structures, utilities, and other items indicated to be demolished and removed: together with earth and other materials that are not classified as rock excavation.

3.3 UNCLASSIFIED EXCAVATION FOR STRUCTURES
A. Includes all earth and miscellaneous material encountered.
B. Excavate to depth as shown on drawings. Transport to fill areas or remove from site.
C. Excess depth: Backfill to proper elevations with Coarse Aggregate Fill at Contractor's expense.
D. Clearance sufficient for form work to be performed. Banks and sides - angle of recline or sheeting, shoring, and bracing as required for safety and conforming to all applicable laws, rules, regulations and codes. Remove before backfilling.
E. Remove loose material and debris from excavation so all footings rest on solid, undisturbed soil.
F. Remove water during excavation for foundations by ditching or pumping so that no water stands.
G. Insure that movement of equipment in the excavation does not cause working and pumping of the underlying soil which is not to be excavated. Should the equipment used cause excessive working, use other methods of excavation to maintain the design bearing capacity of the soil.

3.4 UNCLASSIFIED TRENCH EXCAVATION
A. Includes all earth and miscellaneous material encountered.
B. Excavate to exact depth and grade allowing clearance for pipe bedding as required.
C. Transport excess to fill areas or remove from the site.
D. Report wet or unstable trench bottom to Architect. Should Architect deem unsuitable, excavate to depth as directed and backfill with #1 crushed stone to trench bottom or as otherwise directed.
E. Do not excavate over 12 inches wider than outside diameter of pipe below spring line.
F. ~~Pump as required to dewater excavation.~~

3.5 GENERAL FILLING REQUIREMENTS

A. Start after approval by Architect.
B. The subgrade to receive fill shall be firm and stable and should not exhibit mud, organic material, topsoil, standing water, debris or frozen material. Where applicable, subgrade should be proofrolled and remediated (if necessary). Approved subgrade should be immediately protected by placement of the planned fill.
C. Fill material shall be placed on a satisfactory and approved subgrade in a manner to minimize segregation. The fill should be placed in nearly horizontal lifts commencing at the lowest fill area elevation and proceeding with each lift upward and outward from the lower lift. The moisture content of the material shall be adjusted prior to application of compaction such that it is within 2 percent of the Optimum Moisture Content. The first lift shall be placed to a loose thickness not to exceed 8 inches (12 inches in mass fill areas). This first lift shall then be compacted to an in place density not to less than 95 percent of the maximum dry density, unless noted otherwise in this specification section.
D. No subsequent lift shall be placed until the underlying lift has been adequately compacted to a stable and uniform mass.
E. All subsequent lifts shall not exceed 8 inches (12 inches in mass fill areas) in compacted thickness, shall be moisture conditioned prior to compaction to within 2% of Optimum Moisture Content, and shall be compacted uniformly to an in-place field density field density of not less than 95% of Maximum Dry Density, unless noted otherwise in this specification section.
F. When the test results indicate that insufficient compaction has been obtained in any layer , the Contractor shall take such action as the engineer may direct to modify or alter the moisture content of the soil, to provide additional compaction or otherwise to increase the in-place soil density. If the contractor cannot obtain satisfactory compaction due to material properties, he shall remove the unsatisfactory material and replace with new material. Materials contaminated by mud, debris, organics and/or any other deleterious materials shall be removed and replaced with uncontaminated specified material.
G. Where a structural fill abuts an existing earthen embankment or slope, each lift shall be stepped or benched into the existing slope and each subsequent lift shall overlap appropriately (at least 12 inches) the underlying step or bench. Refer to plans for typical sections for benching of structural fill.
H. Each lift and the final grade shall be graded or sloped to promote positive drainage off the fill and out of the limit lines. The extent of backfill and fill, upon completion, shall conform to the lines and grades given on the plans.

3.6 TRENCH BACKFILL

A. Materials:
   1. Under lawns and under planting beds: Approved excavated subsoil material.
   2. Under pavements: Subbase material or coarse aggregate fill, refer to drawings.
B. Start after approval of Architect.
C. Place: Do not place on frozen ground. Place in 6 inch layers from cushion sand or filter material to subgrade. No boulders or stones over 4 inches. Tamp each 6 inch layer with mechanical tamper. Adjust fill to smooth subgrade.
D. Compaction: Uniformly spread each layer, moisten or dry as required, and then compact so unit dry weight of the compacted material meets or exceeds 95% of the maximum modified proctor density based on ASTM D1557 procedures.

3.7 FILL AT STRUCTURES

A. Materials:
   1. Fill under pavement subgrade - coarse aggregate fill, oversized subbase course material or subbase course material.
   2. Site structures backfill to subgrade where pavement occurs and no footing drains occur - coarse aggregate fill, subbase course material.
   3. Demolition backfill to subgrade where no pavements occur - excavated subsoil material.
   4. Demolition backfill to bottom of new construction where pavements occur - coarse aggregate fill or subbase course material.
B. Start after approval by Architect.
C. Place: Do not place on frozen ground. Place in 6-inch layers. Compact by approved mechanical equipment. Remove construction debris from excavation.
D. Compaction: Uniformly spread each layer, moisten or dry as required, and then compact so unit dry weight of the compacted material meets or exceeds 95% of the maximum modified proctor density based on ASTM D1557 procedures.

3.8 STABILIZATION FABRIC

A. Place Stabilization fabric in lengths and widths as large as possible. Lap seams per manufacturer's instructions or 6 inches minimum.
B. Cover using methods that will not damage or displace stabilization fabric.
C. Time operations to avoid trenching by any contractor in areas where stabilization fabric has been placed.

3.9 EXCESS EXCAVATED MATERIAL

A. All excess earth excavated material not required to meet on site fill requirements shall be promptly removed from the site and legally disposed of at contractor's expense unless otherwise noted.

3.10 FIELD QUALITY CONTROL

A. Proofrolling - immediately prior to placing general base material for pavements or slabs on grade, proofroll subgrade with 10 ton minimum loaded smooth drum self- propelled vibratory roller. Undercut all areas which show pumping or weaving and replace with acceptable fill materials compacted to 95% of the maximum modified proctor density for paved areas and 85% of the maximum modified proctor density for lawn areas based on ASTM D1557 procedures.
B. Quality Control Testing during Construction:
   1. Owner shall provide and pay for services of independent testing service to inspect and test final cut and fill subgrades, utility trenching and subbase course compaction prior to paving. Additional tests will be taken as required for full coverage of paved areas.
   2. Provide timely notice to Architect to inspect and approve subgrades and fill layers before further construction work is performed.
   3. Compaction: ASTM D1557, latest edition: 1 test initially and 1 test for each significant change in fill material.
   4. Field density or in place density tests: Sand-cone method or other method approved by Architect in accordance with ASTM D1556, latest edition.
      a. Trench Backfill
      One test for each 20 linear feet of trench and for each two feet vertical depth of backfill. Architect may require additional tests to verify results of each test which fails to meet results specified. If tests verify compaction below that specified, recompact and/or remove, replace and retest material at the same rate until specified compaction is achieved.
      b. Paved Areas
      At least 1 test for each 2,000 square feet of paved area. Architect may require additional tests to verify results of each test which fails to meet results specified. If tests verify compaction below that specified, remove, replace and retest material at the rate of one test per 1000 square feet of paved area until specified compaction is achieved.

3.11 DEWATERING

A. Details of the dewatering are left to the Contractor's discretion. The Contractor shall submit a dewatering plan of his proposed dewatering system to the Engineer for review. No excavation in the wet shall proceed until the Contractor receives notice the review of the dewatering plan has been completed by the Engineer.
B. The Contractor shall at all times during construction, provide and maintain proper and satisfactory means and devices for the removal of all water entering the excavations, and shall remove all water as fast as it may collect, in such manner as shall not interfere with the prosecution of the work or the proper placing of soil, granular material, sewers, concrete, masonry or other work.
C. Removal of water includes the construction and removal of cofferdams, sheeting and bracing, the excavation and maintenance of ditches and sluice-ways, furnishing and operation of pumps, well points, and furnishing all labor, material and equipment needed to maintain thorough drainage of the work in a satisfactory manner.
D. Water shall not be allowed to rise over or come in contact with any masonry, concrete or mortar and no water shall be allowed to flow ~~over such work until such time as the Engineer may permit.~~
E. Water pumped or drained from excavations, or any sewers, drains, or water courses encountered in the work, shall be disposed of in a suitable manner without injury to adjacent property, the work under construction, to pavements, roads and drives and must comply with the requirements of the Stormwater Pollution Prevention Plan. No water, including sediments, shall be discharged to sanitary sewers, adjoining properties, water courses or wetlands. Any damage caused by improper handling of water shall be repaired by the Contractor at his own expense.

3.12 REMOVAL OF CONTAMINATED MATERIAL

C. Contractor shall be responsible for excavation and removal from the site of any soils or other materials which become contaminated by spills or dumping on the site of petroleum, solvent, chemical or other hazardous products and materials occurring during and as a result of the work of the contractor or any subcontractor, as observed and ordered by the Owner, Architect or others having jurisdiction. Contractor shall bear the cost of such work and any fees, fines, penalties or other costs levied against any parties by agencies having jurisdiction. Excavation, removal, storage and disposal of such contaminated materials shall be conducted in accordance with all applicable laws and regulations, including notification and other requirements of the New York State Department of Environmental Conservation and other agencies having jurisdiction. Replacement of removed materials shall be consistent with original material, placement and compaction requirements, and related work.

END OF SECTION 31 2301

SECTION 32 1100 – BASE COURSES

PART 3 - EXECUTION

3.1 SUBGRADE PREPARATION

A. Grade to smooth draining grades parallel to finish grade and to proper subgrade elevations. No humps or hollows. Proofroll immediately prior to placing general base material for pavements or slabs on grade, proofroll subgrade with 7 ton minimum loaded smooth drum self-propelled vibratory roller. Undercut all areas which show pumping or weaving and replace with acceptable fill materials compacted to 95 percent of the maximum modified proctor density based on ASTM D1557 procedures. Avoid overworking subgrade and running equipment on subgrade unnecessarily. If an area becomes saturated and loses its structure, discontinue working, facilitate surface and subsurface drainage and contact Architect for observation prior to placing pavement base or subbase courses. Refer to Section 312301 for additional compaction requirements.

3. 2 STABILIZATION FABRIC

A. Place paving stabilization fabric in lengths and widths as large as possible. Lap seams per manufacturer's instructions or 6 inches minimum.
B. Cover using methods that will not damage or displace stabilization fabric.
C. Time operations to avoid trenching by any contractor in areas where stabilization fabric has been placed.

3.3 COARSE AGGREGATE FILL

A. Place on dry subgrade on maximum 6 inch lifts. Compact each lift to standard noted under Section 3.1 above.
B. Remove all subgrade material churned or mixed with subbase courses and replace as necessary at Contractor's expense.

3.4 SUBBASE COURSE

A. Place on dry subgrade or subbase course as detailed in maximum 6 inch lifts. Compact each lift to standard noted under Section 3.1 above.
B. Remove all subgrade or subbase course material churned or mixed with base course and replace as necessary at Contractor's e expense.

END OF SECTION 32 1100

SECTION 32 1216 – ASPHALT PAVEMENT

PART 1 - GENERAL

1.1 SUBMITTALS

A. Material Certificate (MC): Each asphaltic concrete course shall comply with an applicable NYSDOT Job Mix Formula showing NYSDOT signature approval for prior use in the region within the past two years. Submit for the following:
   1. Asphalt Top Course - NYSDOT Type 6: (MC)
   2. Asphalt Binder Course - NYSDOT Type 3: (MC

PART 2 - PRODUCTS

2.1 MATERIALS

A. Asphalt pavement: Plant mix asphalt conforming to NYSDOT Standard Specifications Section 401, Material Requirements, 1990 edition. Paving course as shown on drawings:
   1. Asphalt Top Course: Type 6 asphalt concrete conforming to composition requirements of Table 401-1. Installation temperature 280° - 325°F, compacted thickness - per detail.
   2. Asphalt Binder Course: Type 3 asphalt concrete conforming to composition requirements of Table 401-1. Installation temperature 280° - 325°F, compacted thickness - per detail
B. Above mixes shall contain only crushed limestone coarse aggregates.
C. Tack Coat: NYSDOT Asphalt Emulsion 702-90, prepared, heated, and uniformly sprayed at rate of 0.5 gallons per square yard in accordance with NYSDOT requirements.
D. Joint Sealer: NYSDOT Liquid Asphalt 702-11 or similar.
E. Comply with all requirements of NYSDOT Section 401.

PART 3 - EXECUTION

3.1 ASPHALT PAVEMENT

A. Place and roll each course with approved 10 ton roller until no movement or weaving occurs. Correct all humps and depressions to provide smooth surface at correct profile and grade.
B. Install no asphaltic work when surface is wet or temperature is below 50 degrees F.
C. Form or cut all pavement edges to clean, sharp, lines of dimensions, alignment, or radius indicated.
D. Joints: Saw cut and shear step joints along existing paving to remain. All joints between new and existing paving or in new paving where work has been discontinued overnight shall be cap sealed.
E. Compaction: Thoroughly and uniformly compact each asphalt course with powered rollers of not less than 10 tons with working watering systems, and with power tampers in and along areas not accessible to the roller. Rollers should move at uniform speeds and not cause undue displacement, cracking or shoving or other movement. Exercise care not to displace the line and grade of edges or any joints. Joints shall be tightly bonded and match surface smoothness and compaction of other sections of the pavement.
F. Surface Tolerance: Base and binder course surface shall be a true plane consistent with required top course surface grades. Top course surface shall not vary more than 1/8 inch in 10 feet measured in any direction, and shall be a true plane consistent with required surface grades. Paving crown lines shall be true with roadway center lines. Finished top course surface shall be flood checked by the Contractor when requested by the Architect in any areas where ponding or inadequate drainage appears evident. Portions of completed pavement which are defective in finish, compaction, elevation or drainage shall be cut out, removed and replaced. No waviness or irregularities; no ridges; no open or inadequately bonded seams, no abrupt grade changes at catch basins or other structures, center line or other, or elsewhere.

3.2 PAVEMENT GUARANTEE

A. Two-Year Guarantee against Defects in Paving: Contractor guarantees that any areas of settlement, heaving or other movement, cracks, spalling, raveling, surface pitting, flaking or other deterioration, or any other defects which occur in any new or replacement paving, as determined by the Architect and Owner, occurring within two (2) years after the date of substantial Completion, shall be cut out, removed, replaced and corrected to the satisfaction of the Architect and Owner, at the contractor's expense, in accordance with provisions of the contract dealing with correction of work.

END OF SECTION 32 1216

SECTION 32 1313 – SITE CONCRETE

PART 1 - GENERAL

1.1 SUBMITTALS

A. Submit Manufacturer's Data and concrete mix designs for the following:
   1. 3500/4000 psi concrete mix design
   2. Expansion Joint (MD)
   3. Anti Spalling Compound (MD)
   4. Sealant (MD)
   5. Reinforcement (MD)

PART 2 - PRODUCTS

2.1 MATERIALS

A. Concrete: ready-mix air entrained normal weight concrete mixed in accordance with ACI 304, all pavement concrete fibrous reinforced and installed in two (2) courses, provide the following concrete mix designs:

	Subsurface Concrete, etc.	Paving Course
Compressive Strength (28 Days)	3500 psi	4000 psi
Water/Cement ratio (max.)	0.45 by weight	0.45 by weight
Aggregate Size (Max.)	1 inch	1 inch
Air Entrainment	5%-7%	5%-7%
Slump	4 inches +/- 1inch	4 inches max.
Min. Bags Cement per CY	Six (6)	Six (6)

Comply with the following:

   1. Portland cement: ASTM C150, Type 1.
   2. Normal weight aggregates: ASTM C33 and as specified.
   3. Fine aggregate: Clean, sharp, natural, sand, free from loam, clay and other deleterious substances.
   4. Coarse aggregate: Crushed stone (no gravel) processed from hard, natural rock or stone, clean, uncoated, containing no soil or other foreign matter.
   5. Water: potable
   6. Air entraining admixture: ASTM C260, and water-reducing admixture ASTM C94, Type A. Use in strict compliance with manufacturers' recommendations. Sealtight AEA, W R Meadows, Inc. or approved equal.
   7. Ready-mix concrete, comply with ASTM C94. Additional water not permitted to batch for material with insufficient slump. During hot weather or under other conditions contributing to rapid setting of concrete, shorter mixing time than specified in ASTM C94 may be required. When air temperature is between 85F and 90F, reduce mixing/delivery time from 90 minutes to 75 minutes. Cold weather curing protection per ACI recommendations. Provide concrete design mix reports/certificates from supplier, including verification that identical mixes have previously tested at required minimum compressive strength at 28 days. Once approved, all concrete shall be identically mixed by the same supplier, no variations in materials, mix, color permitted.
   8. Expansion joint material: 1/2 inch thick premolded asphalt impregnated joint filler: compatible gun grade one or two component sealer, gray color.
   9. Sheet material for curing concrete: ASTM C171.
   10. Surface sealant: Kure-N-Seal by Sonneborn or equal.
   11. Welded wire mesh/fabric: 6 inch x 6 inch welded 6 gauge steel wire fabric ASTM A185, in flat sheets.
   12. Reinforcing steel: ASTM A615 deformed per ASTM A305, grade 40 for bar sizes No. 4 and smaller; grade 60 for larger bar sizes.
   13. Sleeves and other inserts: As may be shown on drawings.

B. Subsurface Concrete: to be used for Footings, Beddings, Encasements, Cradles, or supports.

PART 3 - EXECUTION

3.1 EXECUTION

A. Preparation for concrete walk and curbs:
   1. Grade smooth draining grades parallel to finish grade and to proper subgrade elevations. No humps or hollows. Roll with approved 10 ton roller until no movement occurs. Do above operations concurrently. Subgrade shall be smooth, hard and dry.
   2. Do not deliver concrete until immediately prior to intended time of installation.
   3. Comply fully with the Latest American Concrete Institute Manual of Concrete Practice in mixing, delivery, forming, installation, curing and other aspects of concrete work.
B. Concrete Walk Pavement:
   1. Location and Layout: All lines, limits and elevations of paving, curbs and related work accurately located and laid out and staked or otherwise marked and checked and verified prior to installation.
   2. Subgrade and base course: check previously established subgrade for any disturbance. Install and compact base course aggregate. Compact to required 95 percent maximum density.
   3. Forms: All forms fabricated of wood or steel to full required depth and to facilitate placing of reinforcing bars or mesh as required to support weight of concrete during and after pouring, and to produce neat, true corners and straight and radius edges as required.
   4. Placing of concrete: Concrete not placed until reinforcement, expansion joint filler and any sleeves and other inserts are placed and secured and forms are cleaned and oiled. When conditions of excessive drying occur, wet aggregate base course immediately prior to installation of concrete. Place concrete in forms, vibrating to work concrete into all corners and to eliminate honeycombing. Exercise care against displacement of forms. If free water appears on top of concrete, reduce quantity of water, take up immediately with cloth or mop, no application of sand or concrete permitted.
   5. Joints: provide expansion joints wherever paving adjoins building walls or other structures or rigid paving, off building corners, at changes in direction, at approximately 30 feet o.c. in runs of walk paving, and as otherwise shown on the drawings.
   6. Concrete finishing: surface of concrete brought to a smooth level finish, free of any swirls or float marks by means of a wood float. Provide steel trowel finish on top and face of integral curb and where otherwise required. Provide tooled edge "picture frame" bands with stiff broom finish where indicated. Brooming to be accurate and consistent in alignment and depth. Finish concrete pavement edges tooled round same as joints. Score joints and bands tooled before and again after brooming while concrete is still green.
   7. Expansion joints: neatly cut out expansion joint material to 1/2 inch depth below surface and install consistent 1/4 inch depth of sealer system in accordance with manufacturer's recommendations.
   8. Protection and curing: Immediately after finishing, surfaces to be protected with waterproof paper covering from traffic and elements for at least three (3) days before opening to traffic. Take necessary precautions to prevent plastic shrinkage cracks during curing. Apply sealant in accordance with manufacturers' recommendations. Protect all concrete work from vandalism. Concrete work which has been vandalized shall be removed and replaced at contractor's expense.
   9. Backfill: all concrete work backfilled in accordance with adjoining work requirements. Backfilling shall proceed immediately after removal of the forms, and shall be conducted with care assuring that concrete damage and settlement do not occur. Do not mar surfaces with backfill material or equipment.

END OF SECTION 32 1313

AmeriCU - Approved for Construction Date

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AmeriCU CREDIT UNION

871 Arsenal Street
Watertown, New York

REVISIONS

Drawn By:	S.R.C.
Checked By:	E.G.K.
KFA Proj. No.:	31095
Date:	11 May 2012
Scale:	AS NOTED

Title:
SITEWORK SPECIFICATIONS

L1.10

SECTION 31 2500 – EROSION CONTROL

PART 1 GENERAL

1.1 SUMMARY

A. The extent of the erosion, sediment and pollution control is shown on the drawings.
B. Erosion, sediment and pollution control includes, but is not limited to the following:
   1. Erosion, sediment and pollution control measures including silt fence, stone check dams and silt fence dikes.
   2. Slope and swale protection.
   3. Construction entrances.
   4. Permanent and temporary seeding.
   5. Permanent Turf Reinforcement Mats.
C. Related sections:
   1. Section 31 1413 - Topsoil
   2. Section 31 2213 - Rough Grading
   3. Section 31 2216 - Fine Grading
   4. Section 31 2300 - Excavating, Backfilling and Compacting
   5. Section 33 4000 - Storm Drainage
   6. Section 32 9000 - Lawns and Sod
   7. Section 32 9300 - Plantings

1.2 QUALITY ASSURANCE

A. Conform to requirements of all regulatory authorities having jurisdiction.

1.3 REFERENCES

A. Guidelines for Erosion Control in Urban Areas of New York State.
B. New York State Stormwater Management Design Manual
C. New York State Department of Environmental Conservation's "SPEDES General Permit for Stormwater Discharges for Construction Activity Permit".

1.4 SUBMITTALS

A. Material Certificates (MC) and Sample (S) of material required for the following materials:
   1. No. 4 Stone:(MC), (LA) and (S) provide 5 lb. sample
   2. ¾ Crushed Stone: (See Section 31 2300, Submittals)
   3. Subbase Material: (See Section 31 2300 Submittals)
   4. Select Granular Fill: (See Section 31 2300, Submittals)
B. Shop Drawing, Manufacturers data (MD) and product sample (S) for the following materials as noted below:
   1. Stabilization Fabric for Construction Access Road: (MD)
   2. Silt Fence: (MD)
   3. Erosion Control Fabric: (MD)
   4. Soil Separation Fabric: (MD)
   5. Permanent Turf Reinforcement Mat and anchoring pins: (MD)

PART 2 PRODUCTS

2.1 MATERIALS

A. Silt fence:
   1. Fabric - Mirafi 1100X or equal.
   2. Support - 14-1/2 gauge galvanized woven wire with maximum 6" mesh opening.
   3. Stakes: rough sawn hardwood, pointed on one end. Minimum cross sectional area
      4 sq. inches.
B. Construction Access Road (Mudrack):
   1. Stabilization Fabric - Refer to Section 31 2300 - Excavation, Backfilling and Compaction.
   2. Stone - No. 4 stone or crushed concrete.
C. No. 4 Stone:

Sieve Size	Standard ASTM Percent Passing by Weight
4"	100
3"	90-100
2"	0-15
Passing No. 50	5-10
Passing No. 100	2-5

D. Erosion Control Fabric:
   1. Material - Mutual Industries or approved equal.
   2. Woven jute (undyed and sun bleached)
E. Permanent Turf Reinforcement Mats:
   1. Material –Pyramat High Performance Turf Reinforcement Mats as manufactured by Propex Geosynthetics (www.propex.com) or approved equal.
   2. Reference Standards –Comply with U.S. EPA Storm Water Fact Sheet, Turf Reinforcement Mats"(EPA 832-F-99-002) and FHWA FP-03 Specifications Section 713.8.
F. Seeding: Refer to Section 32 9200.

PART 3 EXECUTION

3.1 GENERAL

A. The contractor is responsible for controlling sediment from leaving the project site. A Storm Water Pollution Prevention Plan, erosion control plan and erosion control details have been prepared for this project and shall be followed during construction.
B. Pollutants such as fuels, lubricants, bitumen, raw sewage, chlorine and other harmful materials shall be handled and disposed of by approved methods and shall not be discharged into rivers, streams, impoundments, wetlands, or into natural or man-made channels leading thereto. Wash water or waste from concrete mixing or curing operations shall not be allowed to enter live streams.
C. In case of repeated failures on the part of the Contractor to control pollution/erosion, the right shall be reserved by the Owner's representative to employ outside assistance to provide the necessary corrective measures. Such incurred costs, plus related engineering costs, shall be charged to the Contractor and appropriate deductions made to the Contractor's progress payment.
D. Any fines or fees incurred by the Contractor for failure to implement and maintain erosion control devices shall be paid for by the Contractor.

3.2 INSTALLATION OF EROSION CONTROL FACILITIES

A. Simultaneous with removal work and earthwork, install temporary erosion and sediment control facilities shown on drawings and all other facilities required initially and from time to time throughout the work as determined by the Contractor in accordance with Guidelines for Erosion Control in Urban Areas of New York State to prevent and reduce erosion and sedimentation affecting existing on-site improvements to remain or adjoining property or roadways.
B. To control erosion and sedimentation, initial construction operations shall include, as a minimum:
   1. Silt fencing along all perimeters of work as may be shown on the drawings and other perimeters which could produce erosion and sedimentation affecting adjoining properties, roadways, water bodies, and other improvements and facilities.
   2. Silt fencing around stockpiles of topsoil and other excavated soils.
   3. Installation of Stabilized Construction Entrance (Mud Rack)
C. Temporary sediment traps installed by the Contractor shall be sized to provide, as a minimum, 1800 CF of storage capacity for each acre of area being drained or as indicated on plans.
D. Sediment shall be removed from temporary sediment basin and sediment swales and traps and along silt fences and straw bale dikes regularly to maintain stability, flow and storage capacity.
E. Throughout all building and site work, Contractor shall be responsible for erosion and sediment control and for planning, scheduling and phasing work to prevent erosion or sedimentation. Drainage areas should be seeded and stabilized as soon as possible as other work is completed. Temporary seeding with Annual Rye may be considered if final seeding is delayed.
F. All facilities shall be removed as the contributing drainage areas are stabilized and as construction is to be completed. Restore all affected site areas and surfaces.
G. Maintain best management practices (BMP's) per SWPPP.

3.3 SLOPE PROTECTION

A. Protect all disturbed areas during and after earthwork operations as required to prevent gullying, mass wasting and erosion. Stabilize with erosion control fabric. Repair all eroded areas at no expense to the Owner.

3.4 SILT FENCE

A. Construct as detailed truly vertical for entire length. Install all contour 10 feet from toe of slope when practical.
B. Install where indicated on the drawings and/or as required. Wrap silt fence end posts together for continuous support in bed fabrics six inches minimum.
C. Bury Fabric 6 inches minimum.
D. Periodically maintain, remove sediment when 50% or greater full.
E. Promptly replace damaged or worn silt fence immediately.

3.5 STABILIZED CONSTRUCTION ENTRANCE

A. Install where indicated on the drawings and/or as required.
B. Construct as detailed from stone or crushed concrete from site demolition. Maintain at all times and renew when no longer effective. Remove when no longer being used.
C. The pavement adjacent to the entrance shall be swept daily to remove excess mud, dirt or rock tracked from the site.
D. Dump trucks hauling material from the site shall be covered with a tarpaulin.

3.6 INTERCEPTER DIKES & SWALE

A. Install per plan or as otherwise required to direct storm water runoff to temporary sediment traps and detention facilities.
B. Stabilize with erosion control fabric, seed or mulch.
C. Install stone check dams along swale line as detailed at two vertical foot intervals.

3.7 EXCAVATION DEWATERING

D. Install upstream and/or downstream berm as required.
E. Sediment-laden water shall be discharged to silt trapping device.

3.8 STONE CHECK DAM

A. Check Dam where indicated on the plans and as otherwise required by construction phasing.
B. Maintain Check Dam during duration of construction.
C. Remove silt when Check Dam.
D. Remove after adjoining areas have been stabilized.

3.9 INLET PROTECTION

A. Contractor shall protect inlet, inlet, and sections and other outlets using appropriate Best Management Practice. Best Management Practices include Block and Gravel drop inlet protection, filter fabric inlet protection and excavated drop inlet protection as acceptable control devices.

3.10 TEMPORARY SEDIMENT BASIN

A. Install where noted on plans.
B. Stabilize basin including side slopes.
C. Remove accumulated sediment & debris periodically.

3.11 PERMANENT TURF REINFORCEMENT MATS

A. Install where noted on plans.
B. Install per manufacturers specifications.

END OF SECTION 31 2500

SECTION 32 1640 – GRANITE CURB

PART 1 –GENERAL

1.1 SUBMITTALS

A. Shop drawings and technical data for granite curb, concrete setting bed and backing and mortar.

PART 2 –PRODUCTS

2.1 MATERIALS

A. Granite curb:
   1. Stone: Approved, hard, durable granite supplied from one of the following manufacturers: H.E. Fletcher Company, Baretto Granite Corporation, and North Carolina Granite Corporation. Free from seams and defects which affect structural strength. Face quarry split, smooth, at right angles to top. No exposed drill holes, projections greater than 3/4 inch, or depressions greater than 1/2 inch. Top saun to true plane with exposed arris lines straight and true. Bottom split or saun. Ends square with planes of face and top. Minimum length 36 inches, except for small radii. All radii smaller than 100 feet shall be made with appropriate radial curb sections. All radii 15 feet and smaller shall be bullnose pieces.
   2. Setting bed: Concrete, minimum compressive strength 2500 psi at 28 days. Dry concrete mix may be used at the contractor's option.
   3. Continuous Concrete Backing: Concrete mix (1:3:6 ratio)
   4. Mortar: Lime-cement mortar, 1:1:3 (cement, lime, and sand by volume), gray in color.

PART 3 –EXECUTION

3.1 GRANITE CURB

A. Set to lines and grades shown, in setting bed, over base course. Accomplish all vertical changes in grade with vertical curves. No abrupt vertical "breaks" permitted. Place concrete setting bed as detailed continuous for entire length of curb. Joints shall be tight with a maximum 1/4 inch wide gap when adjacent pieces are placed and to end, touching each other. Install continuous concrete backing on both front and back of curb as detailed.
B. Neatly cut granite curb miter joints for plant bed around each flagpole.
C. Fill joints with mortar, mixed and rodded in place. The top and exposed face shall be neatly pointed flush with the curb surfaces and satisfactorily cleaned of excess mortar.

END OF SECTION 32 1640

SECTION 32 1723 – PAVEMENT MARKINGS

PART 1 –GENERAL

1.1 SUBMITTALS

A. Submit manufacturers' data (MD) and color samples (S) for the following:
   1. Paint Manufacturer (MD)
   2. Color sample (S), one per color.

PART 2 –PRODUCTS

2.1 MATERIALS

A. Pavement lines paint: Lead-free yellow, blue, red, green or white marking paint complying with NYSDOT Section 640-2, selected from NYSDOT "Approved List." Refer to drawings and details for locations of each color.

PART 3 –EXECUTION

3.1 PAVEMENT LINES PAINTING

A. Allow pavement/pavement sealer to properly cure to manufacturer's recommendations prior to striping. Apply one coat by brush or zone marking equipment to the location, limits, and colors indicated on the drawings.
B. Comply with NYSDOT wet thickness requirements.

END OF SECTION 32 1723

SECTION 32 4000 – SITE IMPROVEMENTS

PART 1 - GENERAL

1.1 SUBMITTALS

A. Provide manufacturers' data (MD) for the following products:
   1. Sign posts, panels and signage system components.
   2. Pipe Bollards.
B. Provide field erection shop drawings (SD) for all items covered under this section: Sign Post.

PART 2 - PRODUCTS

2.1 MATERIALS

A. Concrete: As specified Section 321313 "Site Concrete".
B. Signage: (Traffic) Refer to sign schedule on the drawings for sign type and size.
   1. Panels: Aluminum engineering grade panels conforming to NYSDOT Standard Specification section 730-01.
   2. Reflective sheeting for sign face shall conform to NYSDOT Standard Specification section 730-05.02 (Class B). Characters shall meet section 730-12 (Type IV) or 730-13 (Type V) as appropriate.
   3. Sign Posts and Footings: conform to requirements on NYSDOT Standard Specification section 832-20.

2.2 PIPE BOLLARD

A. Pipe Bollard: 6 inch diameter galvanized schedule 40 steel pipe.
B. Finish: Refer to detail.

END OF SECTION 32 4000

SECTION 32 9200 - LAWNS

PART 1 –GENERAL

1.1 SUBMITTALS

A. Provide Material Certificates (MC) and Manufacturers' Data (MD) for the following:
   1. Seed species and source
   2. Fertilizer
   3. Jute Mesh
   4. Tackifier
B. Furnish name of Landscape Contractor or Nurseryman to perform lawn seeding and obtain Architect's approval.
C. Upon seeded lawn acceptance, submit written instructions recommending procedures for maintenance of seeded lawns.

1.2 WARRANTY

A. Provide a uniform stand of grass by watering, mowing, and maintaining seeded areas until final acceptance. Reseed areas, with specified materials, which fail to provide a uniform stand of grass, until all affected areas are accepted by the Owner.

PART 2 –PRODUCTS

2.1 MATERIALS

A. Lawn fertilizer: Commercial, Starter with approximate 1:2:1 ratio of Nitrogen, Phosphorus, and Potash (such as 13-25-12).
B. Lawn seed: Fresh, clean, new crop. Deliver in original packages, unopened, bearing guaranteed analysis.
   1. Seeded Lawn Mixture: Mixture containing improved varieties of perennial ryegrass, fescue, and bluegrass. Northern Landscape Utility Mix as distributed by Northern Nurseries, Cicero, New York, or approved equal.

Common Names	Proportion By Weight	Percent Purity	Germination
Perennial Ryegrass	50	92	80
Chewing Fescue	15	85	80
Creeping Red Fescue	15	97	80
Baron Kentucky Bluegrass	20	92	80

   2. Slope Protection/Storm Water Basin Seed: Lofts Ecology Mix or approved equal. Rate 4 pounds per 1,000 square feet.
C. Soil stabilizer: Manufactured by Soil Seal Corp., Riverside, CA or approved equal.
D. Mulch
   1. Lawns: Stalks of oats, wheat, rye, or other approved crops free from seed or noxious weeds.
   2. Hydromulch: Greenwood cellulose fiber mulch as manufactured by Conwed or approved equal.

PART 3 –EXECUTION

3.1 LAWNS/GENERAL

E. Where applicable, check and verify fine grading of respread screened stockpiled topsoil and off-site topsoils repair any disturbances.
F. Where applicable, complete discing, raking, regrading, reconditioning and compost amendment of surface soils.

3.2 SEEDED LAWN

A. Scope: Make entire unpaved areas within contract limits new lawn unless otherwise noted. Refer to drawings for location of Seeded Lawn Mixture and Athletic Field Seed Mixture areas. Use Seeded Lawn Mixture in all other areas of disturbance beyond contract limits.
B. Season of year for seeding, hydroseeding, and sodding subject to approval by Architect. Do not seed or sod or hydroseed when high wind, drought, excessive moisture, ice, or other conditions are such that specified results are not likely to be obtained.
C. Fertilize: Evenly distribute at manufacturers recommendation. Work lightly into top 3 inches of soil.
D. Seed:
   1. Rake immediately before seeding until surface is smooth, friable and of uniform fine texture. Roll. Rake out undulations shown by roller.
   2. Uniformly spread seed in at least two directions at rate of 5 pounds per 1,000 square feet with approved mechanical spreader. Cover seed distributed on the surface to a depth not exceeding 1/4 inch by raking, brush, or chain harrowing, or other approved methods. Roll with 200 pound roller.
E. Mulch all seeded areas immediately after seeding. Hand or machine spread to form a continuous blanket 2 inch uniform thickness, loose measurement. Anchorage to hold mulch in place may be employed at contractor's option, subject to approval by Architect.
F. Hydroseeding:
   1. All hydroseeding shall be applied by means of a hydroseed machine.
   2. Mixture - Mix water, seed, fertilizer, mulch and soil stabilizer at the following rates and apply to the prepared finish grade by means of a hand-held hose. No truck mounted spraying equipment shall be driven over the areas to be seeded. Discharge shall be in an uphill direction only.

Fertilizer	1,000	pounds per acre
Seed	250	pounds per acre or as spec.
Mulch	1,500	pounds per acre
Soil Stabilizer	25	gallons per acre

G. Protect all seeded and hydroseeded areas, at contractor's expense, with snow fences, wire fences, or similar structures. Remove upon final acceptance. On steep slopes or areas subject to erosion, stabilize topsoil and seed as required to allow adequate germination.
H. Maintain lawn:
   1. Begin immediately upon completion of seeding and mulching and continue for a minimum of 60 days or longer as required to establish uniform stand of specified grasses and until final acceptance.
   2. Water immediately after mulching to saturate the soil to 1/2 inch depth. Thereafter, water all seeded areas to 1 inch depth soil saturation no less than two times per week, and more often during periods of drought or high winds, as required by Architect until final acceptance.
   3. Maintain mulch daily, or more often as required. Contain mulch on site and clean up any areas where mulch is blown by wind.
   4. Repair all washouts and gullies. Rerake, reseed and remulch as necessary.
   5. Mow all lawn areas to 2 inch height until acceptance. Grass shall not exceed 3 inches in height. A minimum of three mowings is required.
   6. Meadow areas shall not be mowed.
I. Inspection and final acceptance of lawns:
   1. Contractor shall request inspection by Architect after establishment of uniformly germinated lawn and completion of maintenance.
   2. Owner's responsibility after final acceptance.

END SECTION 32 9200

SECTION 32 9300 - PLANTINGS

PART 2 –PRODUCTS

2.1 MATERIALS

A. Plant materials: Provide plants typical of their species or variety with normal, densely developed branches, fibrous root systems. Provide only sound, healthy, vigorous plants free from defects, disfiguring knots, sun scald injuries, frost cracks, abrasions of the bark, plant diseases, insect eggs, borers, and all forms of infestation. All plants shall have a fully developed form without voids and open spaces. Plants held in storage will be rejected if they show signs of growth in storage.
   1. Balled and burlapped: Dig with firm natural ball of earth of sufficient diameter and depth to encompass the fibrous and feeding root system necessary for full recovery of the plant. American Association of Nurserymen standard sizes to be minimum. Firmly wrap ball with burlap or similar material and bind with twine, cord, or wire mesh.
   2. Bare Root: Dig and remove the earth without injury to the fibrous root system necessary for full recovery of the plant. Cover roots with a thick coating of mud by puddling or wrap in wet straw, moss, or other suitable packing material immediately after digging for protection until delivery.
   3. Containers: All container-grown plant materials shall be healthy, vigorous, well rooted, and established in the container in which they are sold. An established container-grown plant shall have been transplanted into a container and grown in that container sufficiently long for the new fibrous roots to have developed so that the root mass will retain its shape and hold together when removed from the container. The container shall be sufficiently rigid to hold the ball shape protecting the root mass during shipping. American Association of Nurserymen standard container sizes shall be minimum.
   4. Provide tree species that mature at heights over 25'-0" with a single main trunk. Trees that have the main trunk forming a "Y" shape are not acceptable.
   5. Plants planted in rows shall be matched in form.
   6. Plants larger than those specified in the plant list may be used when acceptable to the Owner.
      a. If the use of the larger plants is acceptable, increase the spread of roots or root ball in proportion to the size of the plant.
   7. The height of the trees, measured from the crown of the roots to the top of the top branch, shall not be less than the minimum size designated in the plant list.
   8. No pruning wounds shall be present with a diameter of more than inch, and such wounds must show vigorous bark on all edges
   9. Evergreen trees shall be branched to the ground.
   10. Shrubs and small plants shall meet the requirements for spread and height indicated on the plants list.
      a. The measurements for height shall be taken from the ground level to the average height of the plant, and not the longest branch.
      b. Single-stemmed or thin plants will not be accepted.
      c. Side branches shall be generous, well-twigged, and the plant as a whole well bushed to the ground.
      d. Plants shall be in a moist, vigorous condition, free from dead wood, bruises, or other root or branch injuries.

2.1 ACCESSORIES

A. Mulch: Wood Chip Mulch, 50 percent shredded bark and 50 percent wood chip mixture, 3/4 inch - 2-1/4 inch size, free from elm wood chips and bark. To be utilized around individual tree plantings and perennial/ groundcover plant beds.
B. Planting Soil Mix: Natural, fertile, friable granular soil characteristic of productive soils in vicinity. Uniform in composition and texture. Clean, free from subsoil, clay lumps, stones, weeds, stumps, roots, toxic substances and debris of similar substances 1 inch or more in greatest dimension. Topsoil pH value of 5.5 to 7.5 or able to be amended, 8 to 20 percent minimum organic content, soluble salts not to exceed 500 parts per million.
C. Planting fertilizer: Commercial, containing by weight:
   1. 5% Nitrogen 10% Phosphorus 5% Potash
D. Peat Moss: Brown to black in color. Acid reactions 4 to 5 pH. Low in content of woody material. Free from mineral matter harmful to plant life. Water absorbing capacity, 1100 to 2000 percent. Moisture content, 30 percent. Natural, shredded, or granulated.
E. Tree stakes: Sound wood.
F. Hose: For bark protection, new or used 2-ply fiber bearing rubber garden hose not less than 1/2 inch in diameter.
G. Wire: For tree supports. Pliable #9 gauge galvanized annealed steel wire.
H. Turnbuckles: 6 inch long, galvanized.
I. Tree wrapping: Waterproof 30-30-30 Kriniklacraft or approved equal. 4 inch wide strips.
J. Anti-desiccant: "Wilgrul", "Douwax", "Pro-Tec", or approved equal.
K. Hydrogel: Gelscape(r) or approved equal, Ameroq Inc. (914) 634-2400, 19 Squadron Boulevard, New City, NY 10956.
L. Water: Free of substances harmful to plant growth. Hoses or other method for application and transportation furnished by the contractor.

PART 3 –EXECUTION

3.1 INSPECTION

C. Examine proposed planting areas and conditions prior to plant installation. Do not start planting work until unsatisfactory conditions are corrected.

3.2 PREPARATION

A. Nursery-grown trees
   1. Time of planting:
      a. Deciduous plant material: Plant deciduous materials in a dormant condition. If deciduous trees deciduous trees are planted in-leaf, they shall be sprayed with an anti-desiccant prior to planting operation.
      b. Planting times other than those indicated shall be acceptable to the Owner.
      c. Planting shall be performed only by experienced workmen familiar with planting trees under the supervision of a qualified supervisor. Locate plants as indicated or as approved in the field after staking by the Contractor. If obstructions are encountered that are not shown on the drawings, do not proceed with planting operations until alternate plant locations have been selected.
   2. Excavate circular plant pits with vertical sides, except for plants specifically indicated to be planted in beds. Provide shrub pits at least 12 inches greater than the diameter of the root system and 24 inches greater for trees. Depth of pit shall accommodate the root system. Scarify the bottom of the pit to a depth of 4 inches. Remove excavated materials from the site.
   3. Provide pre-mixed planting mixture for use around the balls and roots of the plants consisting of 5 parts planting topsoil to 1 part peat moss and 1/2 pound plant fertilizer Type A for each cubic yard of mixture.

3.3 INSTALLATION

A. Nursery-grown trees
   1. Set plant material in the planting pit to proper grade and alignment. Set plants in upright, plumb, and faced to give the best appearance or relationship to each other or the adjacent structure. Set plant material 2 to 3 inches above the finish grade. No filling will be permitted around trunks or stems. Backfill the pit with planting mixture. Do not use frozen or muddy mixtures for backfilling. Form a ring of soil around the edge of each planting pit to retain water.
   2. After balled and burlapped plants are set, muddle planting soil mixture around bases of balls and fill all voids.
      a. Remove all burlap, ropes, and wires from the tops of balls.
   3. Anchoring:
      a. Anchor trees immediately after planting, prior to mulching and acceptance. Install the specified anchor system as detailed and in accordance with the manufacturer's recommendations.
   4. Mulching:
      a. Mulch tree and shrub planting pits and shrub beds with required mulching material 3 inches deep immediately after planting. Thoroughly water mulched areas. After watering, rake mulch to provide a uniform surface.
   5. Wrapping:
      a. Inspect trees for injury to trunk, evidence of insect infestation, and improper pruning before planting.
      b. Wrap trunks of all trees spirally from bottom to top with specified tree wrap and secure in place.
         1) Overlap 1/2 the width of the tree wrap strip and cover the trunk from the ground to the height of the second branch.
         2) Secure tree wrap in place with twine wound spirally downward in opposite direction, tied around the tree in at least 3 places in addition to the top and bottom.
   6. Pruning:
      a. Prune branches of deciduous stock, after planting, to balance the loss of roots and preserve the natural character appropriate to the particular plant requirements. In general, remove 1/4 to 1/3 of the leaf-bearing buds, proportion shall in all cases be acceptable to the Owner. Remove or cut back broken, damaged, and unsymmetrical growth of new wood.
      b. Multiple leader plants: Preserve the leader which will best promote the symmetry of the plant. Cut branches flush with the trunk or main branch, at a point beyond a lateral shoot or bud a distance of not less than 1/2 the diameter of the supporting branch. Make cut on an angle.

3.4 MAINTENANCE

A. Maintain plantings until completion and acceptance of the entire project.
B. Maintenance shall include pruning, cultivating, weeding, watering, and application of appropriate insecticides and fungicides necessary to maintain plants free of insects and disease.
   1. Re-set settled plants to proper grade and position. Restore planting saucer and adjacent material and remove dead material.
   2. Tighten and repair anchor wires as required.
   3. Correct defective work as soon as possible after deficiencies become apparent and weather and season permit.
   4. Water trees and shrubs within the first 24 hours of initial planting, and as required until final acceptance.

3.5 ACCEPTANCE

A. Inspection to determine acceptance of planted areas will be made by the Owner, upon Contractor's request. Provide notification at least 10 working days before requested inspection date.
   1. Planted areas will be accepted providing all requirements, including maintenance, have been complied with and nursery-grown trees are alive and in a healthy, vigorous condition.
B. Upon acceptance, the Owner will assume plant maintenance.

3.6 CLEANING

A. Perform cleaning during installation of the work and upon completion of the work. Remove from site all excess materials, soil, debris, and equipment. Repair damage resulting from planting operations.

END OF SECTION 32 9300

SECTION 33 4000 – STORM DRAINAGE

PART 1 –GENERAL

1.1 SUBMITTALS

A. Submit Shop Drawings (SD) and Manufacturers' Data (MD) for the items listed below and any special construction details relating to the storm drainage system.
   1. Drainage structures: one (SD) per casting type.
   2. Drainage structures and Trench Drain: one (SD) per structure. Include rim and bottom elevations, pipe inverts and pipe locations.
   3. Castings: one (SD) per type
   4. Storm lines and underdrains: one (PD) per pipe material type
   5. Filter Fabric: (PD)
   6. Detectable Warning Tape: (PD)
   7. Non-Shrink Grout: (PD)
B. Material Certificates (MC) including a certified laboratory sieve analysis (LA) bearing name and location of quarry. Sample (S) of material required (approximate volume 1 cubic foot) in a waterproof container permanently labeled to show source. Submit for the following materials:
   1. Drainage Fill: (MC), (LA) and (S)
   2. Coarse Aggregate Fill: (See section 312300, Submittals)

PART 2 –PRODUCTS

2.1 MATERIALS

A. Concrete: As specified Section 321313 - Site Concrete. Minimum compressive strength 3,000 psi at 28 days.
B. Reinforcing: As specified Section 321313 - Site Concrete.
C. Masonry Units: Common brick, ASTM C-62, latest edition, grade SW.
   1. Mortar: Cement-lime-sand, 1:1:3 mix.
D. Drainage Structures, Frame, Grates and Covers:
   1. Drywells/Catch basins/manholes/inlets: Sizes, shapes, specific unit, or any other special requirements as shown on drawings or equal; precast reinforced concrete units complying with ASTM C 478 with integral floor or poured-in-place concrete base, "O" ring gaskets for interlocking units ASTM C443. Provide ductile iron or reinforced plastic steps integrally cast into sidewalls where indicated. Use only "traffic design" covers in paving areas or where otherwise indicated.
E. Frames, Grates, Covers:
   1. Sizes, specific unit, grate or cover design or any other special requirements as shown on drawings or equal. All units to be heavy-duty suitable for H-20 loading. Syracuse Castings Co. or Neenah Co. products shall be quality standard. Provide castings of uniform quality, free from blow holes, porosity, hard spots, shrinkage defects, cracks, or other injurious defects, gray iron material, ASTM A 48 Class 30, all non-rocking design with machined bearing surfaces. Provide traps or pipe elbows drops if shown on drawings.
   2. Pipe to MH/CB Connections: Kor-N-Seal flexible EPDM rubber connector by NPC Inc. or approved equal.
   3. Grade Adjustment: Precast concrete rings, NYSDOT Section 715-13 prefabricated cast iron or steel adjustment rings. No brick allowed.
   4. Provide traps or pipe elbows within structure if shown on drawings.
F. Storm Lines:
   1. Cast Iron Pipe (CI): XH ASTM service weight, hub-and-spigot joints CISPI HSN compression type with ASTM C564 neoprene gaskets.
   2. Corrugated Round Steel Pipe (CSP): Comply with NYSDOT Section 707-02. Steel thickness 16 gauge minimum, galvanized hot-dipped bituminous coated inside and out, paved invert or smooth liner if indicated on drawings; all special shapes, fittings, branches, reducers and band couplers to match, same manufacturer. Use maximum available width couplers for pipe size. Provide perforated pipe where shown on drawings.
   3. Corrugated High Density Polyethylene (HDPE) Corrugated Perforated or Non-perforated High Density Polyethylene shall have smooth interior and annular exterior corrugations. Pipe sizes 4 to 60 inches (100 to 1500 mm) shall meet AASHTO M294, Type S. Pipe shall be joined with the bell-and-spigot joint meeting the requirements of AASHTO M252 or AASHTO M294. The joint shall be watertight according to the laboratory requirements of ASTM D3212. 30 inch (750 mm) through 48 inch (1050 mm) pipe joints shall be watertight according to ASTM D3212 with the exception that the joint be tested using 5.0 psi (34.5 kPa). Joints shall remain watertight when subjected to a 15 degree axial misalignment. Gaskets shall be made of polyisoprene meeting the laboratory requirements of ASTM F477. Gaskets shall be installed by the pipe manufacturer and covered with a removable wrap to ensure the gasket is free from debris. A joint lubricant supplied by the manufacturer shall be used on the gasket and bell during assembly.
   4. Underdrain (UD): ASTM F 405 perforated corrugated polyethylene tubing, piping and fittings by Advanced Drainage Systems, Hancor, Baughman Tile Co., or equal, use maximum length coils in each run, use internal couplers to join coils. Provide heavy-grade AASHTO M 294 culvert pipe where indicated. Use non-perforated tubing where indicated.
G. Sand Bedding (Storm Drains): Clean coarse natural sand free of organic matter.
H. Drainage Fill (Underdrains): Screened gravel, crushed gravel or crushed stone conforming with NYSDOT Section 703.02 Size 1 Gradation.
I. Filter Fabric: Non-woven polypropylene drainage fabric, Mirafi 140N, TerraTex 50 or equal.
J. Cleanouts: Heavy-duty coated cast iron body, fitted top with vandal resistant fasteners, cleanout plug, J.R. Smith, Zurn or equal. Use ductile iron pipe riser. Comply with drawings.
K. Non-Shrink Grout: CRD-C 621, factory pre-mixed grout. Products which may be incorporated in the work include the following Non-metallic grouts or an approved equal: "Set Grout" by Master Builders, "Sonogrout" by Sonneborn-Rexnord or "Euco-NS" by Euclid Chemical Co.
L. Dissimilar Material Adapter: Dissimilar Material Adapter by Advanced Drainage Systems or approved equal.
M. Coarse Sand: Well-graded coarse sand generally complying with NYSDOT section 703.07 Concrete Sand specification and gradation, provided that no more than 25 percent by weight shall pass a No. 30 sieve.

PART 3 –EXECUTION

3.1 STRUCTURES

A. Precast Units: Bed in gravel, set level and plumb. Align steps in all sections exactly on a plumb axis. On sloping surfaces, arrange for opening to be on the downslope side of the structure so that 12 inch minimum cover is maintained over riser section without bulging the plane of the slope. Finished structure, including all joints and penetrations, shall be watertight.
B. Masonry Extensions: Construct as detailed. Parge inside and out.
C. Castings: Securely set in mortar.

3.2 INSTALLATION OF DRAIN LINES

A. All pipe shall be examined before laying and no piece shall be installed which is found to be defective.
B. Drain placement shall commence at the outlet and proceed section by section "uphill" unless otherwise directed by the Engineer. Place spigot ends in direction of flow.
C. If any defective pipe is discovered after it has been installed, it shall be removed and replaced with a sound pipe in a satisfactory manner at no additional cost to the Owner. All pipe and fittings shall be thoroughly cleaned before installation, shall be kept clean until they are used in the work and when laid, shall conform to the lines and grades required. All piping, fitted end sections and fittings shall be installed in accordance with requirements of the manufacturer, or as otherwise provided herein or on the Drawings.
D. As soon as the excavation is complete to normal grade of the bottom of the trench, sand bedding shall be placed, compacted and graded to provide firm, uniform and continuous support for the pipe. The pipe shall be laid accurately to the lines and grades indicated on the Drawings. Blocking under the pipe will not be permitted. Bedding shall be placed evenly on each side of the pipe to mid-diameter and hand tools shall be used to force the bedding where needed to give firm continuous support for the pipe. Depending on final surface material, Sand Bedding or Coarse Aggregate fill shall be placed to 12-inch above the top of the pipe (refer to "Drains" detail). The initial 3-ft of backfill above the bedding shall be placed in 1-ft layers and carefully compacted. Generally the compaction shall be done evenly on each side of the pipe and compaction equipment shall not be operated directly over the pipe until sufficient backfill has been placed to ensure that such compaction equipment will not have a damaging effect on the pipe. Equipment used in compacting the initial 3 foot of backfill shall be approved by the pipe manufacturer's representative prior to use. Refer to Section 312300, Sitework Excavation, Backfilling and Compacting for additional backfilling requirements.
E. All pipe shall be sound and clean before installation. When installation is not in progress, the open ends of the pipe shall be closed by watertight plug or other approved means. Good alignment shall be preserved during installation. The deflection at joints shall not exceed that recommended by manufacturer.
F. Before any joint is made, the pipe shall be checked to assure that a close joint with the next adjoining pipe has been maintained and that the inverts are matched and conform to the required grade. The pipe shall not be driven down to grade by striking it.
G. Precautions shall be taken to prevent flotation of the pipe in the trench.
H. When moveable trench bracing such as trench boxes, moveable sheeting, shoring or plates are used to support the sides of the trench, care shall be taken in placing and moving the boxes or supporting bracing to prevent movement of the pipe, or disturbance of the pipe bedding and the backfill. Trench boxes, moveable sheeting, shoring or plates shall not be allowed to extend below top of the pipe. If trench boxes, moveable sheeting, shoring or plates have been installed below the top of the pipe, they shall be moved slowly taking care not to disturb pipe, bedding or backfill. As trench boxes, moveable sheeting, shoring or plates are moved, pipe bedding shall be placed to fill any voids created and the backfill shall be recompacted to provide uniform side support for the pipe.
I. Thoroughly clean completed storm drainage system of all debris and sediment prior to final acceptance.

3.3 COORDINATION

A. Coordinate location of wyes and verify inverts of lines and structures with Plumbing Contractor where applicable.

3.4 UNDERDRAINAGE/FRENCH DRAIN/LOW FLOW UNDERDRAIN

A. Drainage Fill: Place as detailed.
B. Perforated lines: Place holes down, true to line and grade. Place remaining drainage fill.
C. Connect to nearest suitable storm manhole whether drawings show routing or not.
D. Backfill: Per Section 312300 Sitework Excavation, Backfilling and Compacting and as detailed on the drawings.

3.5 WATERPROOF PIPE CONNECTOR

A. Install per manufacturer's recommendations.

END SECTION 33 4000

AmeriCU - Approved for Construction Date

KEPLINGER FREEMAN ASSOCIATES
LANDSCAPE ARCHITECTURE & LAND PLANNING
6320 FLY ROAD, SUITE 201 EAST SYRACUSE, NEW YORK 13057
PHONE: (315) 445-7980 FAX: (315) 445-7981

RZ Engineering, PLLC
6320 FLY ROAD SUITE 201
EAST SYRACUSE, NY 13057
PH: 315.432.1089 FAX: 315.445.7981

REGISTERED LANDSCAPE ARCHITECT EDWARD GILBERT REPKE 001835 STATE OF NEW YORK

Client:
Canal Properties II Inc., LLC
125 High Rock Avenue
Saratoga Springs, NY 12866

Contact: Devin Dal Pos
(518) 306-3747
(212) 401-4759

AmeriCU CREDIT UNION

871 Arsenal Street
Watertown, New York

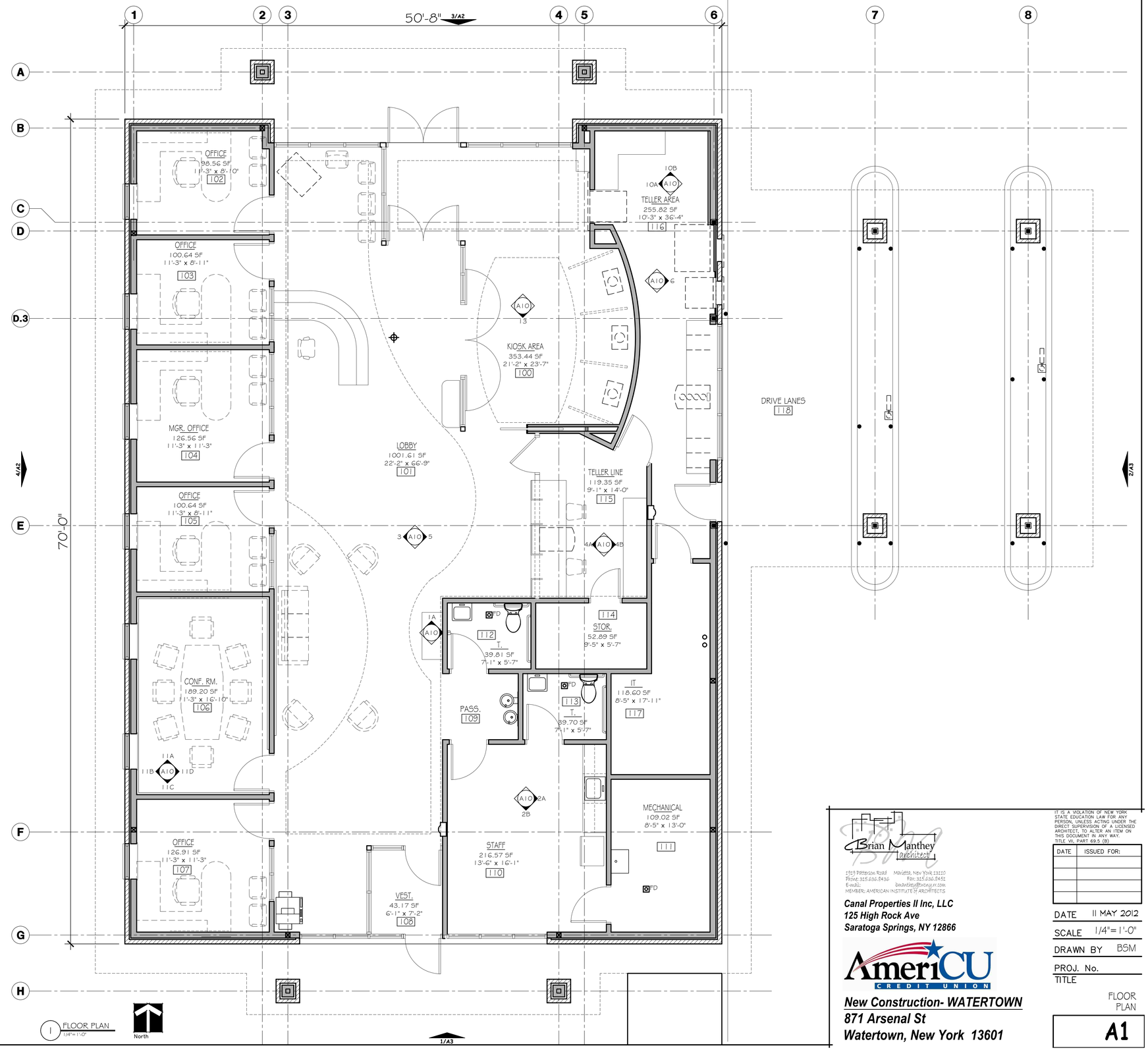
REVISIONS

Drawn By:	S.R.C.
Checked By:	E.G.K.
KFA Proj. No.:	31095
Date:	11 May 2012
Scale:	AS NOTED

Title:

SITEWORK SPECIFICATIONS

L1.11



Brian Manthey architect
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MEMBER: AMERICAN INSTITUTE OF ARCHITECTS

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DATE	ISSUED FOR:

Canal Properties II Inc, LLC
125 High Rock Ave
Saratoga Springs, NY 12866

AmeriCU CREDIT UNION

New Construction- WATERTOWN
871 Arsenal St
Watertown, New York 13601

DATE 11 MAY 2012

SCALE 1/4" = 1'-0"

DRAWN BY BSM

PROJ. No.

TITLE FLOOR PLAN

A1

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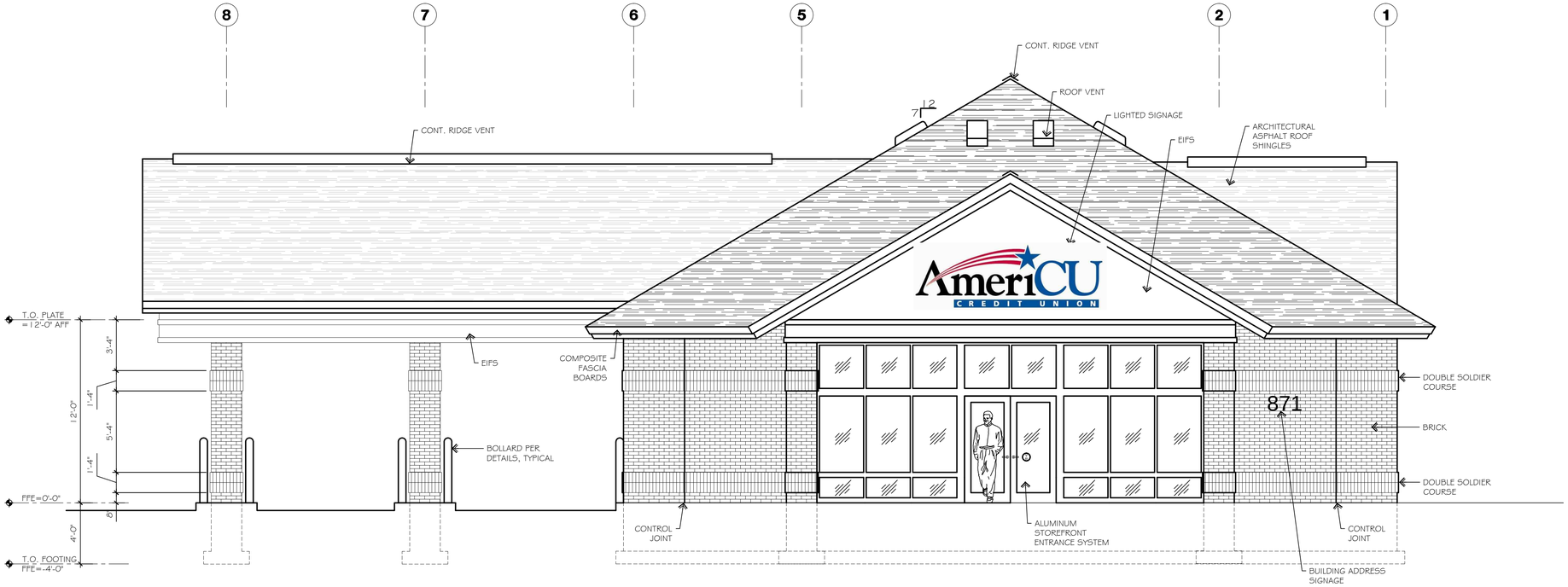
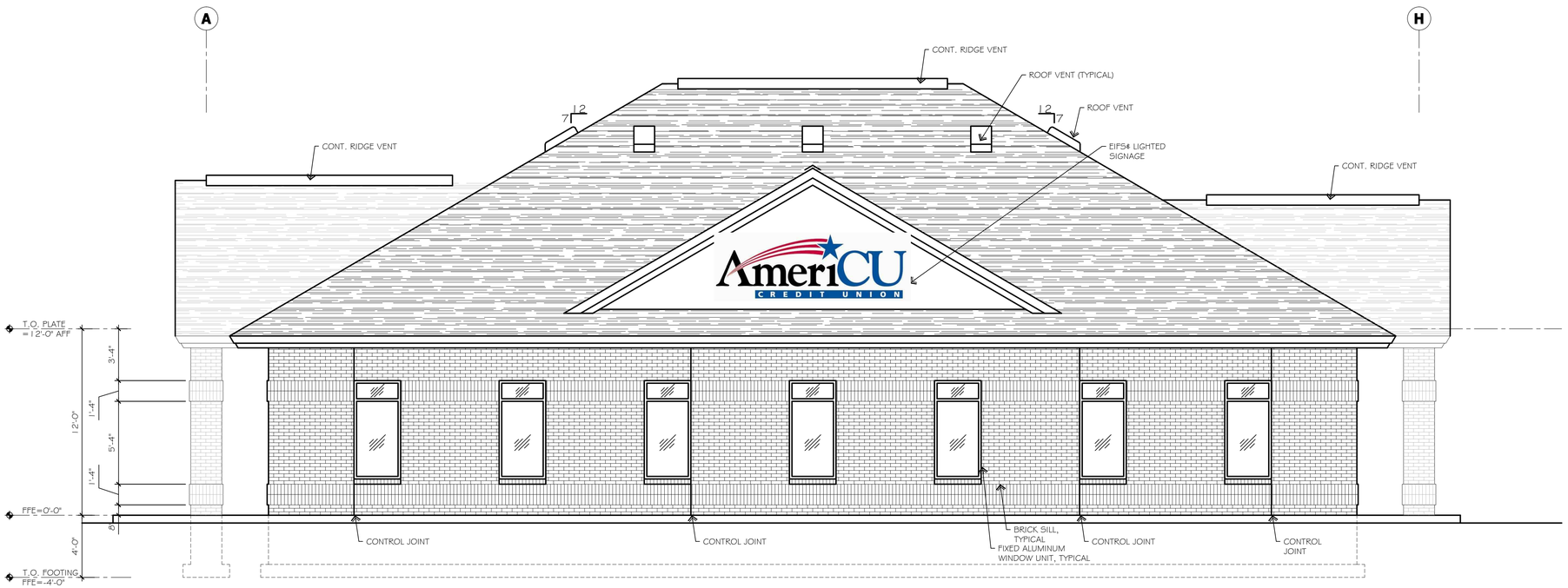
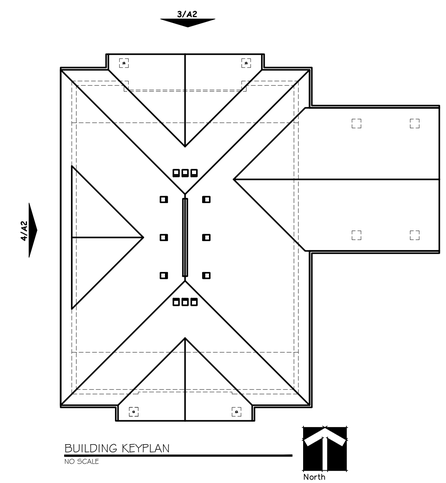


3 FRONT (NORTH) ELEVATION
1/4"=1'-0"



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



BUILDING KEYPLAN
NO SCALE

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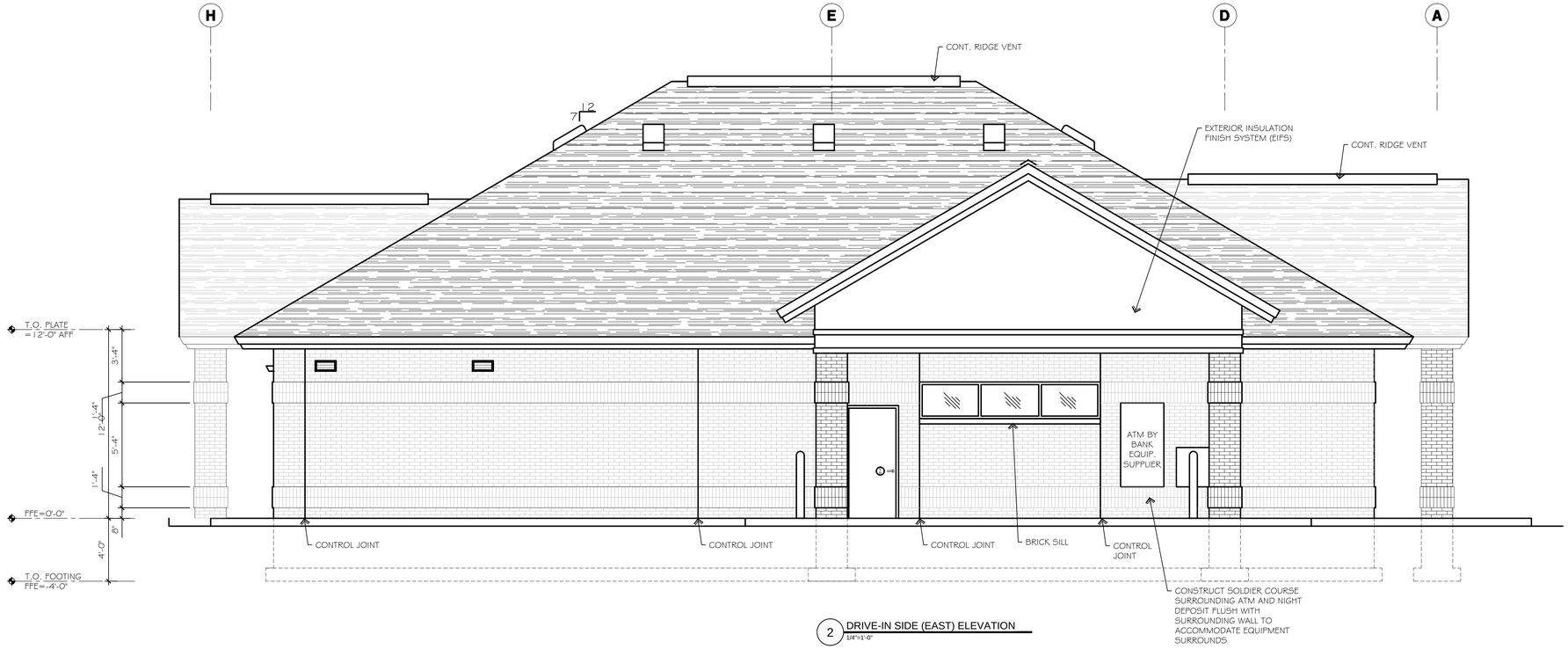
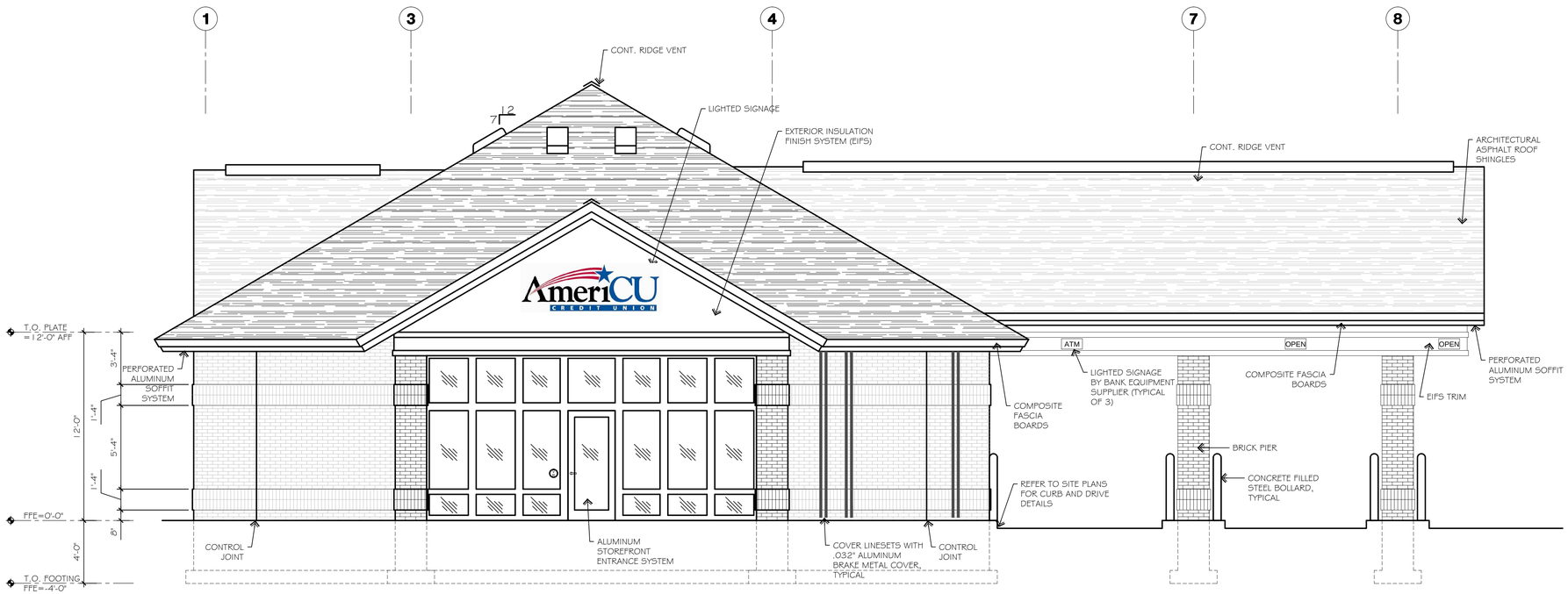
DATE	ISSUED FOR:

DATE	11 MAY 2012
SCALE	1/4"= 1'-0"
DRAWN BY	BSM
PROJ. No.	
TITLE	EXTERIOR ELEVATIONS

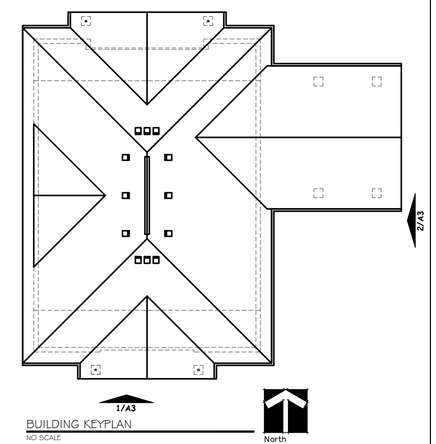
A2



2 DRIVE-IN SIDE (EAST) ELEVATION
1/4"=1'-0"



1 REAR (SOUTH) ELEVATION
1/4"=1'-0"



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A3