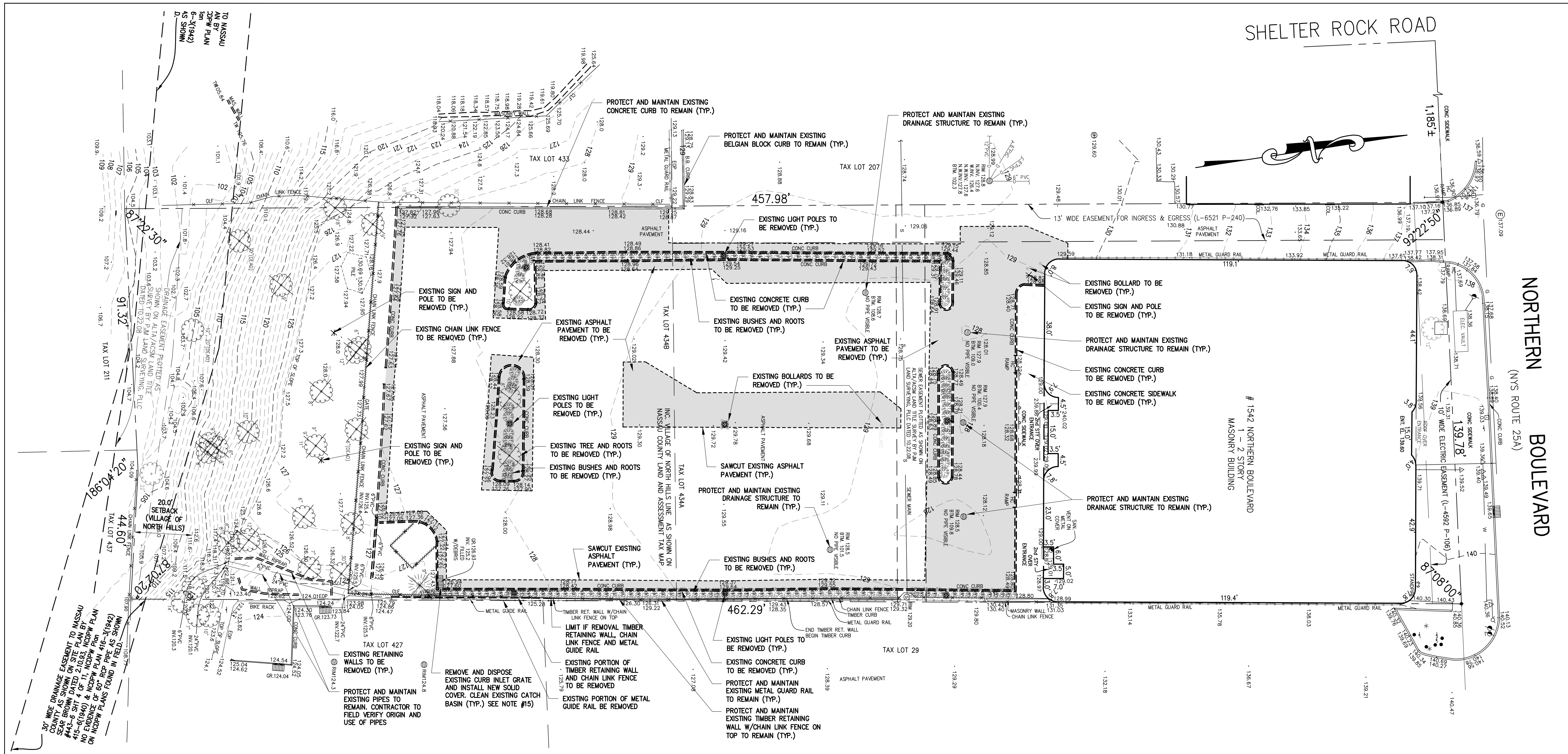
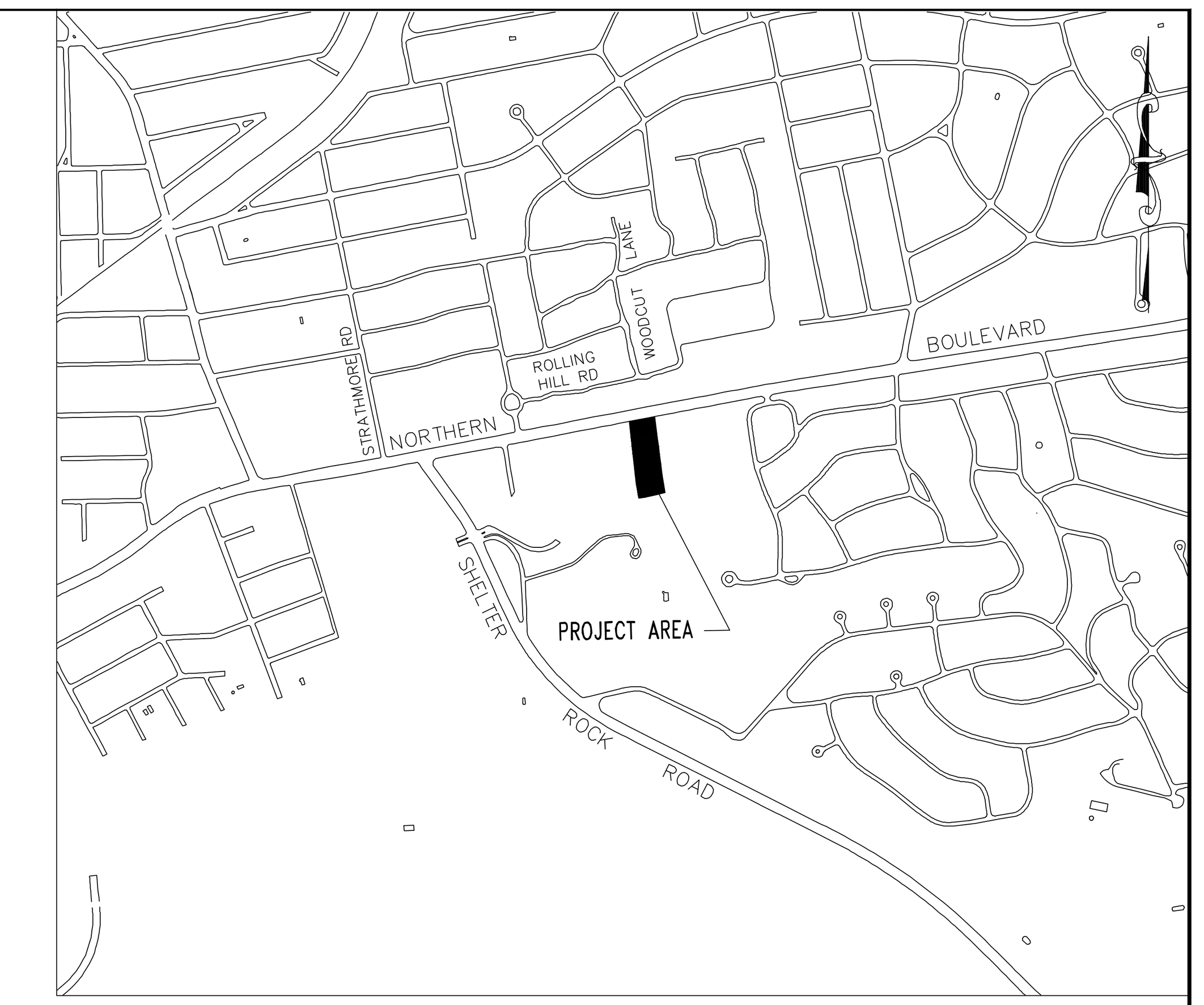




VICINITY MAP
SCALE: 1" = 1,000'

LEGEND

✳	SHRUB
•	BOLLARD
▥	CATCH BASIN
⊜	DRAIN INLET
✳	EVERGREEN TREE
Ⓔ	ELECTRIC MANHOLE
*	GROUND LIGHT
□	GAS VALVE
ᵕ	HYDRANT
✹	METAL LIGHT POLE
Ⓜ	UNKNOWN MANHOLE
ø	UTILITY POLE
ø	WOOD LIGHT POLE
△	WATER VALVE
◐	SANITARY CLEAN OUT
✿	DECIDUOUS TREE
——×——×——	CHAIN LINK FENCE
—E——E—	UNDERGROUND ELECTRIC
—G——G—	GAS MAIN
—GS——GS—	GAS SERVICE
—W——W—	WATER MAIN

DEMOLITION NOTES:

1. THE WORK TO BE PERFORMED AS PART OF THIS CONTRACT INCLUDES THE COMPLETE DEMOLITION, REMOVAL AND DISPOSAL TO AN OFFSITE LOCATION OF ALL STRUCTURES, WALLS, STEPS, PATIOS, WALKS, SHEDS, DECKS, ASPHALT AND CONCRETE PAVEMENTS, CURBS, LIGHTS, POLES, SIGNS, BENCHES, GATES, FENCING, DRAINAGE AND SANITARY SEWER STRUCTURES, ELECTRIC AND TELEPHONE MANHOLES, ETC., SHOWN WITHIN THE LIMITS OF DEMOLITION INDICATED ON THE PLAN. FLOOR SLABS, FOOTINGS AND FOUNDATION WALLS SHALL BE COMPLETELY REMOVED AS PART OF THIS WORK. ALL EXCAVATIONS SHALL BE BACKFILLED WITH SELECT GRANULAR MATERIAL AS DEFINED IN SECTION 203 OF N.Y.S.D.O.T. STANDARD SPECIFICATIONS. COMPACTION OF BACKFILL SHALL CONFORM TO N.Y.S.D.O.T. SECTION 203. EXCAVATED AREAS SHALL BE BACKFILLED UP TO EXISTING GRADE ELEVATIONS OF SURROUNDING AREAS. ITEMS SHOWN TO REMAIN SHALL BE PROTECTED AND MAINTAINED.
2. UNLESS OTHERWISE INDICATED TO BE REMOVED, THE CONTRACTOR SHALL PROTECT AND MAINTAIN ALL OTHER EXISTING FACILITIES AND EXISTING TREES WITHIN THE LIMIT OF DEMOLITION AND THE OVERALL SITE FOR THE DURATION OF DEMOLITION WORK.
3. UNLESS OTHERWISE REQUIRED OR INDICATED, ALL FACILITIES OUTSIDE THE LIMIT OF DEMOLITION SHALL BE PROTECTED AND MAINTAINED.
4. THE SITE IS TO BE VISITED BY THE CONTRACTOR TO DETERMINE EXISTING CONDITIONS OF THE SITE AND STRUCTURES TO BE REMOVED, PRIOR TO DEMOLITION.
5. CONDUCT DEMOLITION OPERATIONS AND THE REMOVAL OF DEBRIS TO ENSURE MINIMUM INTERFERENCE WITH ROADS, STREETS, WALKS AND ADJACENT OCCUPIED OR USED FACILITIES.
6. ENSURE THE SAFE PASSAGE OF PERSONS AROUND THE AREA OF DEMOLITION. CONDUCT OPERATIONS TO PREVENT INJURY TO ADJACENT BUILDINGS, STRUCTURES, FACILITIES AND PERSONS.
7. PROPERLY REPAIR DAMAGES CAUSED TO ADJACENT FACILITIES BY DEMOLITION OPERATIONS AT NO COST TO THE OWNER.
8. LOCATION OF EXISTING UTILITIES SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO THE START OF ANY EXCAVATION OR DEMOLITION WORK. THE CONTRACTOR SHALL CONTACT THE OWNERS OF ALL UTILITIES SERVING THE BUILDINGS TO BE DEMOLISHED, PRIOR TO DEMOLITION. ALL UTILITY DISCONNECT PROCEDURES SHALL BE AS SPECIFIED BY THE UTILITY OWNER. THE CONTRACTOR SHALL OBTAIN AND PAY FOR ALL PERMITS, INCLUDING ROAD OPENING PERMIT, REQUIRED.
9. THE CONTRACTOR SHALL OBTAIN A PERMIT FROM THE TOWN BUILDING DEPARTMENT COVERING THE DEMOLITION WORK. WORK SHALL CONFORM WITH ALL THE REQUIREMENTS OF THE NEW YORK STATE FIRE PREVENTION AND BUILDING CODE, ALL APPLICABLE TOWN ORDINANCES AND THE REQUIREMENTS OF THE OFFICE OF THE COUNTY FIRE MARSHAL. THE CONTRACTOR SHALL OBTAIN AND PAY FOR ANY PERMITS REQUIRED.
10. CLEAN ADJACENT STRUCTURES AND DRIVEWAYS OF DUST, DIRT AND DEBRIS. RETURN ADJACENT AREAS TO CONDITION EXISTING PRIOR TO THE START OF THE WORK.
11. USE WATER SPRINKLING AND TEMPORARY ENCLOSURES TO LIMIT THE AMOUNT OF DUST AND DIRT RISING AND SCATTERING IN THE AIR TO THE LOWEST PRACTICAL LEVEL.
12. IF REQUIRED, ASBESTOS ABATEMENT, LEAD REMOVAL AND FUEL TANK REMOVAL IN CONFORMANCE WITH TOWN AND STATE REGULATIONS MUST BE PERFORMED PRIOR TO THE START OF DEMOLITION.
13. ALL EXISTING UTILITIES TO BE RE-USED MUST BE COORDINATED WITH THE APPROPRIATE AGENCIES FOR APPROVAL PRIOR TO START OF CONSTRUCTION.
14. SEE SHEET EC-1 FOR EROSION CONTROL PLAN AND DETAILS.
15. ALL EXISTING ACCESSIBLE DRAINAGE STRUCTURES TO BE CLEANED AND INSPECTED AT THE COMPLETION OF CONSTRUCTION.

EROSION CONTROL MEASURES FOR DEMOLITION WORK:

1. DURING THE COURSE OF CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR IMPLEMENTING EROSION CONTROL MEASURES NECESSARY TO PREVENT THE TRANSPORT OF SEDIMENT TO OFF-SITE AREAS, DRAINAGE INLETS, ETC. ACTUAL EROSION CONTROL MEASURES WILL BE DICTATED BY FIELD CONDITIONS AS CONSTRUCTION PROGRESSES AND AS DIRECTED BY THE ENGINEER. THE FOLLOWING CONDITIONS SHALL BE OBSERVED:
   A. EXISTING VEGETATION TO REMAIN SHALL BE PROTECTED AND REMAIN UNDISTURBED.
   B. CLEARING AND GRADING SHALL BE SCHEDULED SO AS TO MINIMIZE THE SIZE OF EXPOSED AREAS AND THE LENGTH OF TIME THAT AREAS ARE EXPOSED.
   C. THE LENGTH AND STEEPNESS OF CLEARED SLOPES SHALL BE MINIMIZED TO REDUCE RUNOFF VELOCITIES.
   D. RUNOFF SHALL BE DIVERTED AWAY FROM CLEARED SLOPES.
   E. SEDIMENT SHALL BE TRAPPED ON THE SITE.
   F. SPECIFIC METHODS AND MATERIALS EMPLOYED IN THE INSTALLATION AND MAINTENANCE OF EROSION CONTROL MEASURES SHALL CONFORM TO THE "NEW YORK GUIDELINES FOR EROSION AND SEDIMENT CONTROL."

2. SEDIMENT BARRIERS (SILT FENCES, STRAW BALES OR APPROVED EQUAL) SHALL BE INSTALLED PRIOR TO ANY GRADING WORK ALONG THE LIMITS OF DISTURBANCES AND SHOULD BE MAINTAINED FOR THE DURATION OF THE WORK. NO SEDIMENT FROM THE SITE SHALL BE PERMITTED TO WASH ONTO OR ENTER ADJACENT PROPERTIES, WETLANDS, ROADS, STORM DRAINS, WATER COURSES, ETC. THE CONTRACTOR SHALL BE RESPONSIBLE FOR KEEPING ALL PAVED SURFACES (ROADWAYS, PARKING FIELDS, ETC.) CLEAN FOR THE DURATION OF THE CONTRACT. ALL MATERIALS SPILLED, DROPPED, WASHED OR TRACKED ONTO THE PAVED SURFACES BY THE CONTRACTOR SHALL BE REMOVED IMMEDIATELY.

3. GRADED AND STRIPPED AREAS AND STOCKPILES SHALL BE KEPT STABILIZED THROUGH THE USE OF TEMPORARY SEEDING AS REQUIRED. SEED MIXTURES SHALL BE IN ACCORDANCE WITH SOIL CONSERVATION SERVICE RECOMMENDATIONS. WHEN FINAL GRADING IS COMPLETE, THE CONTRACTOR SHALL COMPLETE THE WORK OF TURF ESTABLISHMENT WITHIN FOUR DAYS OR OTHERWISE STABILIZE THE AREA IF THE SEASON IS NOT APPROPRIATE FOR TURF ESTABLISHMENT. IN THIS CASE THE CONTRACTOR SHALL STABILIZE WITHIN 21 DAYS OF COMPLETING THE FINAL GRADING, WITH STRAW MULCH, OR OTHER APPROVED OR SPECIFIED MEANS UNTIL TURF ESTABLISHMENT CAN BE COMPLETED.

4. EXISTING DRAINAGE INLETS SHALL BE PROTECTED FROM SEDIMENT BUILDUP THROUGH THE USE OF SEDIMENT BARRIERS, SEDIMENT TRAPS, ETC., AS REQUIRED. CONTROLS SHALL REMAIN IN PLACE UNTIL THE DISTURBED AREAS DRAINING TO THE INLET HAVE BEEN STABILIZED BY EITHER PAVING, SEEDING, OR SLOPE PROTECTION.

5. PROPER MAINTENANCE OF EROSION CONTROL MEASURES IS TO BE PERFORMED BY THE CONTRACTOR AS INDICATED BY PERIODIC INSPECTION AND AFTER HEAVY OR PROLONGED STORMS. MAINTENANCE MEASURES INCLUDE, BUT ARE NOT LIMITED TO, CLEANING OF SEDIMENT BASINS OR TRAPS, CLEANING OR REPAIR OF SEDIMENT BARRIERS, CLEANING AND REPAIR OF BERMS AND DIVERSIONS AND CLEANING AND REPAIR OF INLET PROTECTION.

6. APPROPRIATE MEANS SHALL BE USED TO CONTROL DUST DURING CONSTRUCTION.

7. A STABILIZED CONSTRUCTION ENTRANCE SHALL BE MAINTAINED TO PREVENT SOIL AND LOOSE DEBRIS FROM BEING TRACKED ONTO LOCAL ROADS. THE CONSTRUCTION ENTRANCE SHALL BE MAINTAINED UNTIL THE SITE IS PERMANENTLY STABILIZED.

8. SEDIMENT BARRIERS AND OTHER EROSION CONTROL MEASURE SHALL REMAIN IN PLACE UNTIL UPLAND DISTURBED AREAS ARE PERMANENTLY STABILIZED. AFTER PERMANENT STABILIZATION, PAVED AREAS SHALL BE CLEANED AND DRAINAGE SYSTEMS CLEANED AND FLUSHED AS NECESSARY.

9. IN THE EVENT DEWATERING OPERATIONS BECOME NECESSARY, FILTRATION OF THE DISCHARGE WILL BE REQUIRED UNLESS THE PUMP DISCHARGE IS CLEAR AND FREE OF SEDIMENT. THE LOCATION AND DESIGN OF THIS FILTRATION METHOD SHALL BE APPROVED BY THE ENGINEER.

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

UTILITY NOTES:

1. THE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL EXISTING UTILITIES AND STRUCTURES PRIOR TO THE START OF ANY WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE CAUSED BY THIS WORK.
2. CALL BEFORE YOU DIG - 1 (800) 272-4480 NEW YORK STATE'S INDUSTRIAL CODE 53 REQUIRES THAT THE UNDERGROUND PROTECTIVE ORGANIZATION BE CALLED AT LEAST TWO WORKING DAYS BEFORE YOU START TO DIG, DRILL, EXCAVATE, BLAST, DRIVE PIPE OR POSTS. WHEN YOU CALL, YOU MUST GIVE YOUR NAME, COMPLETE ADDRESS AND INFORMATION ABOUT WHAT YOU ARE PLANNING TO DO. SOMEONE WILL BE SENT OUT TO LOCATE ANY BURIED CABLE AND MARK THE SITE FOR YOU. IF A CABLE IS DAMAGE BEFORE THE CALL IS MADE TO THE UNDERGROUND PROTECTIVE ORGANIZATION, ANY REPAIR COSTS WILL BE CHARGED TO THE PERSON RESPONSIBLE.
3. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ENGAGE WITH AN APPROVED, PRIVATE UNDERGROUND UTILITY LOCATION AND MARK OUT COMPANY TO HAVE ALL ON-SITE UNDERGROUND UTILITIES, WITHIN THE WORK AREA, COMPLETELY LOCATED AND MARKED OUT, AT CONTRACTOR'S OWN EXPENSE.
4. SUBSURFACE INFORMATION SHOWN HEREON HAS BEEN TAKEN FROM VARIOUS DEPARTMENTS OF THE TOWN, COUNTY AND PUBLIC UTILITY COMPANIES. THIS INFORMATION IS NOT GUARANTEED AS TO ACCURACY OR COMPLETENESS. THE CONTRACTOR SHALL BEFORE COMMENCING ANY EXCAVATION, NOTIFY THE DEPARTMENTS AND UTILITY COMPANIES OF THEIR PROPOSED WORK AND REQUEST THAT THE PARTICULAR LINES BE MARKED BY COMPANY OR AGENCY HAVING JURISDICTION. THIS SHOULD BE DONE BY PROVIDING THE AFFECTED UTILITY WITH THE NOTICE REFERRED TO IN THE STATE OF NEW YORK INDUSTRIAL CODE 53.

REFERENCE

1. TOPOGRAPHY SURVEY
   SIDNEY B. BOWNE & SON, LLP
   235 E. JERICHO TURNPIKE
   MINEOLA, NY 11501
   REV. #2 DATED: JUNE 15, 2015

SHEET INDEX

NO.	DATE	REVISION	BY

STATE OF NEW YORK
ROBERT WILLIAM HUTTEMANN
072062
LICENSED PROFESSIONAL ENGINEER

[illegible]

SITE REMOVAL PLAN

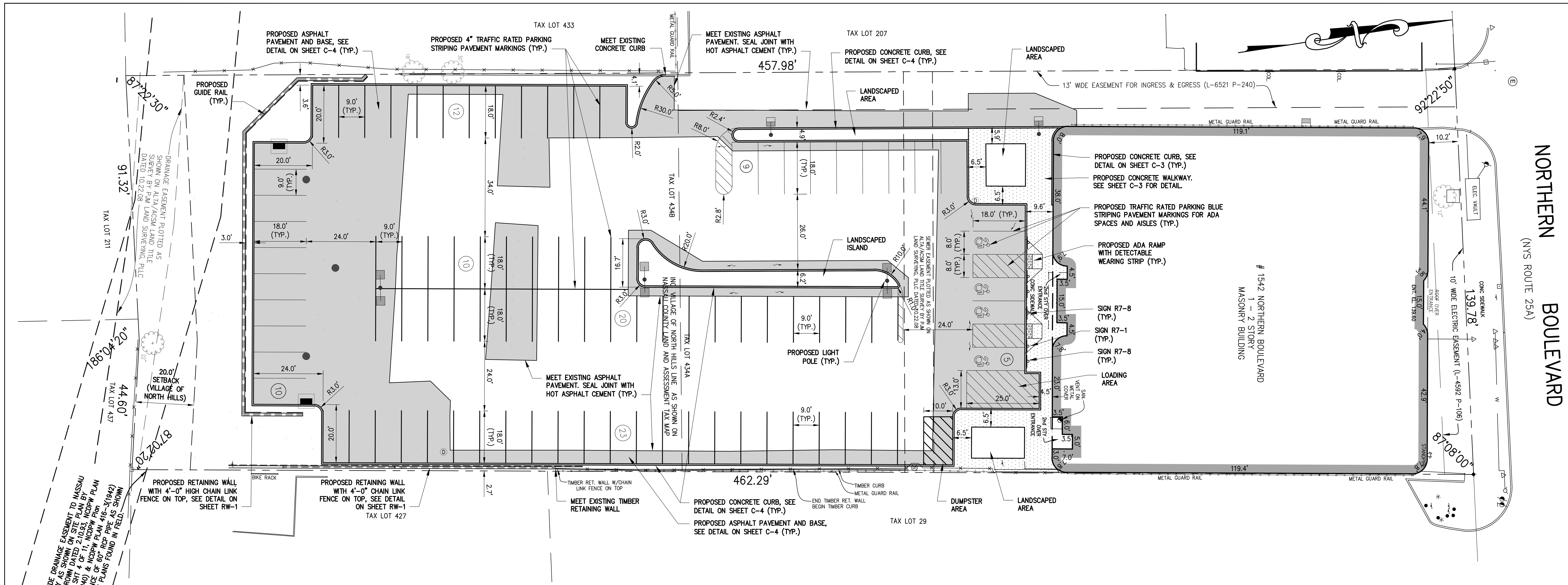
1542 NORTHERN BOULEVARD
MANHASSET, TOWN of NORTH HEMPSTEAD
NASSAU COUNTY, NEW YORK

LiRo Engineers, Inc.
A LiRo Group Company
Mineola, N.Y. 516-746-2350[T]

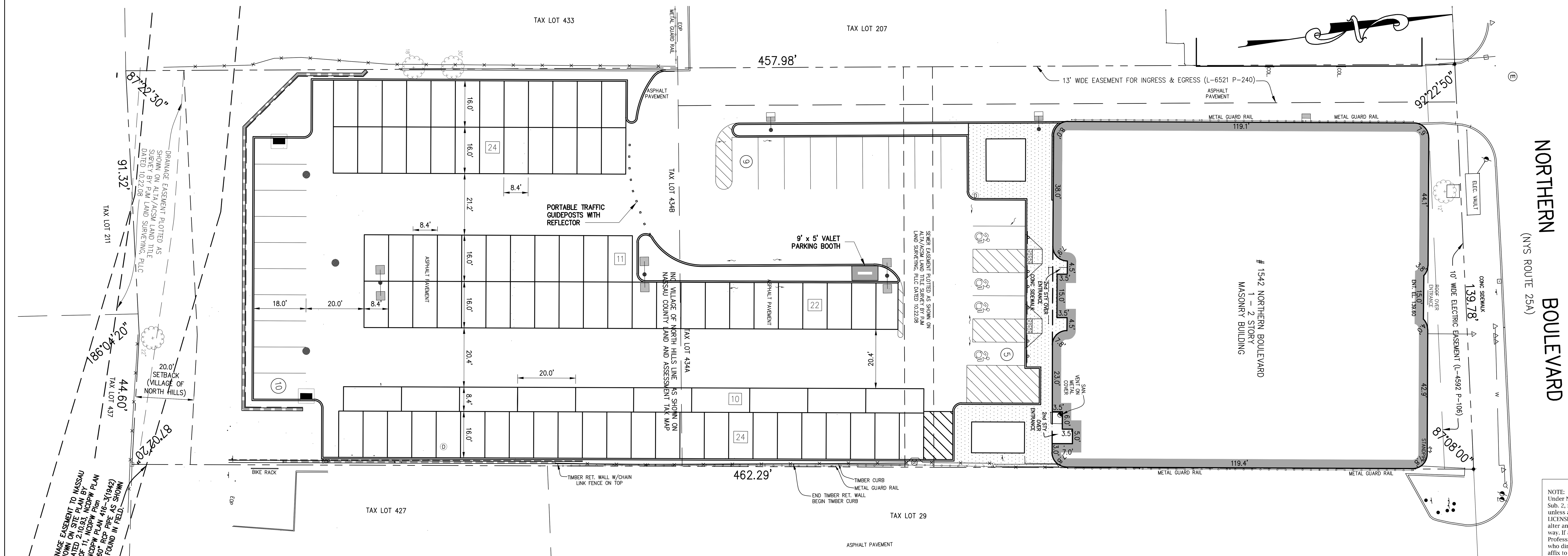
SCALE:
PLAN: 1" = 20'
PROFILE
HORIZ:
VERT:

DATE:
NOVEMBER, 2018

DESIGNED BY:	DRAFTED BY:	CHECKED BY:	PROJECT NO:	SHEET NUMBER
LK	IK	DK	11538316	DM-1



SELF PARKING LAYOUT



VALET PARKING LAYOUT

GRAPHIC SCALE

(IN FEET)
1 inch = 20 ft.

GENERAL INFORMATION

1. APPLICANT & OWNER:
   C & B REALTY
   1520 NORTHERN BOULEVARD
   MANHASSET, NY 11030
2. BULK DATA:
   N.C.T.M. #: SEC. 3, BLK. 145, LOTS 434A & 434B

   ZONING DISTRICT: B-A (LOT 434A IN TOWN OF NORTH HEMPSTEAD)
   R-5 (LOT 438B IN VILLAGE OF NORTH HILLS)
   TOTAL LOT AREA = 63,118 SF (1.45 AC)

   BELOW CHART BASED ON TOWN OF NORTH HEMPSTEAD ZONING CODE ARTICLE XVI, UNLESS OTHERWISE NOTED.

REGULATIONS	REQUIRED (ZONE B-A)	PROVIDED
USE (SEC. 70-125)		MEDICAL OFFICES AND RETAIL
MAX. PERMITTED LOT COVERAGE (SEC. 70-131)	70% (44,182 Sq. Ft.)	24.2% (15,250 Sq. Ft.)
FRONT YARD (SEC. 70-132)	10'	10.2'
MIN. SIDE YARD (SEC. 70-133)	0'	0'
REAR YARD (SEC.70-134)	20'	316.2'
BUILDING HEIGHT (MAX.)	40'	<40'

3. PARKING AND LOADING CALCULATIONS:
   PARKING SPACE REQUIREMENTS -(PER SEC. 70-103)

   - **PARKING REQUIRED:**
     RETAIL: 1 SPACE PER 300 SF
     9,472 SF X (1/300 SPACE PER SF) = 31.57 SPACES

     MEDICAL OFFICE (-1000): 1 SPACE PER 150 SF
     (21,011-1,000) x (1/150 SPACE PER SF) = 133.40 SPACES

   TOTAL REQUIRED PARKING = 165 SPACES

   - OFF STREET LOADING REQUIRED:
     RETAIL: 1 AREA PER 10,000 SF = 1 LOADING AREA
     OFFICE: 1 AREA PER 40,000 SF = 1 LOADING AREA
     TOTAL REQUIRED LOADING AREAS = 2 LOADING AREAS
     PROVIDED = 1 LOADING AREA*

   - PARKING REQUIRED BASED ON BUILDING AREA BREAKDOWN:

DESCRIPTION	GROSS AREA	NOTES	1 PER	REQUIRED PARKING
1st FLOOR MEDICAL OFFICE	14,227 Sq. Ft.	(-1,000) Sq. Ft.	150 Sq. Ft.	88.18
1st FLOOR LOBBY AND VERT. TRANS.	1,032 Sq. Ft.	PARKED AS RETAIL	300 Sq. Ft.	3.44
2nd FLOOR MEDICAL OFFICE	6,472 Sq. Ft.	-	150 Sq. Ft.	43.15
STAIRS SERVING MEDICAL OFFICE	312 Sq. Ft.	PARKED AS MED. OFF.	150 Sq. Ft.	2.08
2nd FLOOR LOBBY AND VERT. TRANS.	1,243 Sq. Ft.	PARKED AS RETAIL	300 Sq. Ft.	4.14
2nd FLOOR RETAIL	7,197 Sq. Ft.	-	300 Sq. Ft.	23.99
GROSS TOTAL	30,483 Sq. Ft.	-	-	165 SPACES

   - PARKING PROVIDED (9'x 18" SPACES)* = 89 SPACES
     NET PARKING DEFICIT = 76 SPACES*
     VALET PARKING LAYOUT = 106 SPACES*

     * VARIANCE RECEIVED:
       TOWN OF NORTH HEMPSTED BZA # 20134.A 11/14/18
       VILLAGE OF NORTH HILLS ZBA # 16-12ZA 05/22/18

4. WATER IS SUPPLIED BY MANHASSET -LAKEVILLE WATER DISTRICT.
   SEWER IS SERVED BY GREAT NECK WATER POLLUTION CONTROL DISTRICT.

5. PROFESSIONAL ENGINEER FOR THIS PROJECT IS:
   ROBERT W. HUTTEMAN, P.E.
   LIRO ENGINEERS INC.
   235 JERICHO TURNPIKE
   MINEOLA, NY 11501
   516-746-2350

REFERENCE

1. TOPOGRAPHY SURVEY
   SIDNEY B. BOWNE & SON, LLP
   235 E. JERICHO TURNPIKE
   MINEOLA, NY 11501
   REV. #2 DATED: JUNE 15, 2015

NO.	DATE	REVISION	BY
1.	12-06-2018	SUBMIT FOR SITE PLAN REVIEW	LK

STATE OF NEW YORK · ROBERT WILLIAM HUTTEMAN · 072062 · LICENSED PROFESSIONAL ENGINEER

PARKING AND SITE LAYOUT PLAN

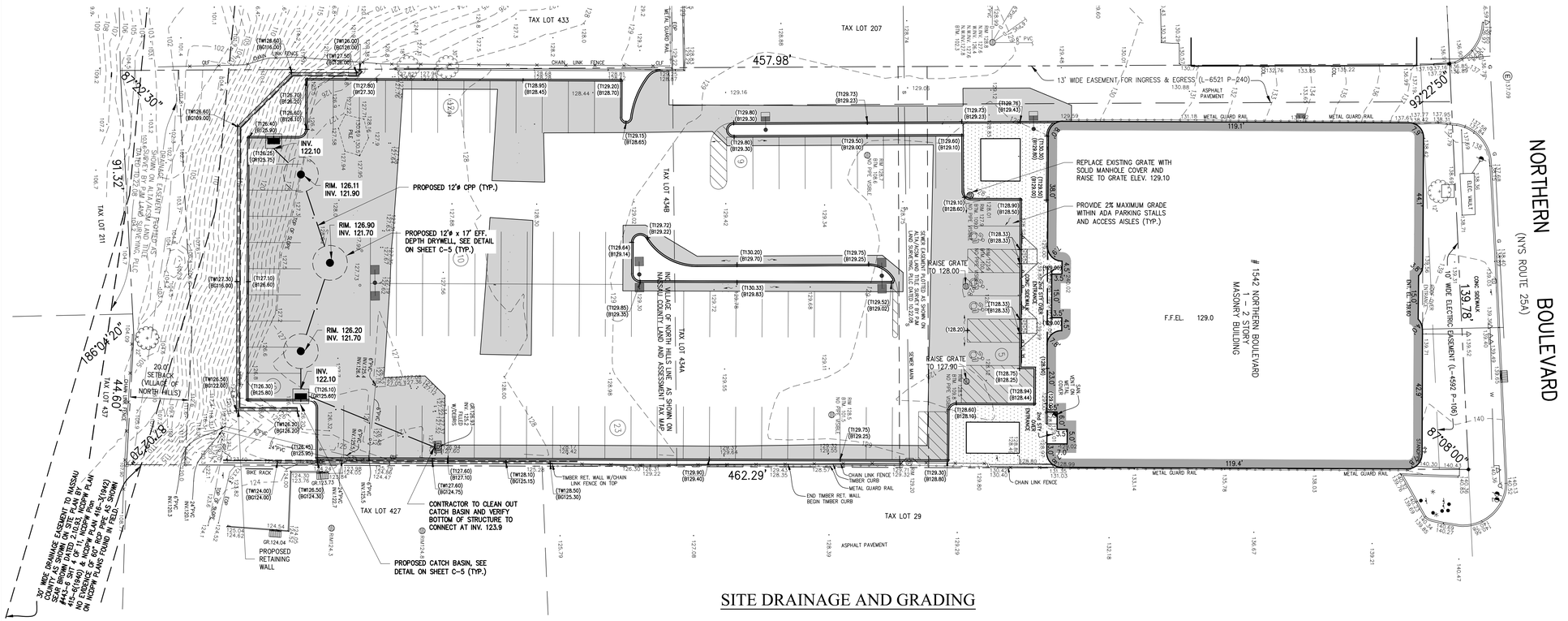
1542 NORTHERN BOULEVARD
MANHASSET, TOWN of NORTH HEMPSTEAD
NASSAU COUNTY, NEW YORK

LiRo Engineers, Inc.
A LiRo Group Company
Mineola, N.Y. 516-746-2350[T]

SCALE:
PLAN: 1" = 20'
PROFILE
HORIZ:
VERT:

DATE: NOVEMBER, 2018

DESIGNED BY:	DRAFTED BY:	CHECKED BY:	PROJECT NO:	SHEET NUMBER
LK	IK	DK	11538316	C-1



SITE DRAINAGE AND GRADING

GENERAL NOTES:

1. PRIOR TO THE START OF ANY NEW WORK, THE CONTRACTOR SHALL PROVIDE MARK-OUT OF ALL EXISTING UTILITIES AND BELOW GRADE FACILITIES, INCLUDING DRAINAGE PIPES AND STRUCTURES, SANITARY SYSTEM, WATER SERVICES, ELECTRIC, GAS AND TELEPHONE SERVICES, ETC.
2. THE CONTRACTOR SHALL ADVISE THE OWNER AND THE ENGINEER OF ANY POTENTIAL CONFLICTS PRIOR TO THE START OF ANY NEW WORK.
3. ELEVATIONS SHOWN REFER TO NATIONAL GEODETIC VERTICAL DATUM (N.G.V.D. 29).

GRADING AND DRAINAGE NOTES:

1. ALL PROPOSED STORMWATER DRYWELL EXCAVATION SHALL EXTEND A MINIMUM OF 6 FEET INTO SAND AND GRAVEL. THE EXCAVATION SHALL BE BACKFILLED, AS PER THE DETAIL, TO THE BOTTOM OF THE DRYWELL. REFER TO DRYWELL DETAILS.
2. ALL SITE DRAINAGE PIPE AND ROOF DRAIN PIPE SHALL BE MINIMUM 12" AND 8" RESPECTIVELY, AND SHALL BE ADS N-12 CORRUGATED POLYETHYLENE PIPE (CPP) MEETING THE STANDARDS AND INSTALLATION RECOMMENDATIONS OF ASTM F667 & F405 AND THE MANUFACTURER, UNLESS OTHERWISE SHOWN ON THE PLANS.
3. ALL DRYWELLS SHALL BE CONSTRUCTED WITH THE FOLLOWING MINIMUM CLEARANCES:
   a) 10' TO BUILDING WALLS
   b) 20' EDGE OF DRYWELL TO EDGE OF DRYWELL
   c) 10' MINIMUM TO PROPERTY LINES
   d) 10' MINIMUM TO WATER SERVICE LINES
4. WHERE ANY PLASTIC PIPE IS USED FOR INTERCONNECTION BETWEEN DRAINAGE STRUCTURES OR AS DRAINAGE LINES IT SHALL BE PROVIDED WITH A MINIMUM OF 2'-0" OF COVER.
5. IF REINFORCED CONCRETE PIPE (RCP) IS USED FOR INTERCONNECTION BETWEEN DRAINAGE STRUCTURES OR AS DRAINAGE LINES, IT SHALL BE CLASS IV AND PROVIDED WITH A MINIMUM OF 2'-0" OF COVER.
6. IF 2'-0" OF COVER CANNOT BE MAINTAINED THEN THE DRAINAGE PIPE SHALL BE DUCTILE IRON PIPE (DIP), CLASS 52 CEMENT LINED.
7. NEW CONCRETE CURB REVEAL SHALL BE SIX (6) INCHES, UNLESS OTHERWISE INDICATED.
8. ALL DRAINAGE STRUCTURES SHALL MEET TOWN OF NORTH HEMPSTEAD STANDARDS.
9. A MINIMUM OF 1.0% PITCH TO BE MAINTAINED ON ALL LANDSCAPED AND PAVED AREAS. PITCH WITHIN PARKING AREAS SHALL BE NO GREATER THAN 5.0%, EXCEPT NO GREATER THAN 2% IN ANY DIRECTION IN ACCESSIBLE PARKING AND ACCESS AREAS.
10. ALL EXISTING ACCESSIBLE DRAINAGE STRUCTURES TO BE CLEANED AND INSPECTED AT THE COMPLETION OF CONSTRUCTION.
11. PER USGS GROUNDWATER MONITORING WELL #404742073410301-N8309.1, HIGHEST GROUND WATER ELEVATION IS 44.2.

UTILITY NOTES:

1. THE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL EXISTING UTILITIES AND STRUCTURES PRIOR TO THE START OF ANY WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE CAUSED BY THIS WORK.
2. CALL BEFORE YOU DIG – 1 (800) 272-4480 NEW YORK STATE'S INDUSTRIAL CODE 53 REQUIRES THAT THE UNDERGROUND PROTECTIVE ORGANIZATION BE CALLED AT LEAST TWO WORKING DAYS BEFORE YOU START TO DIG, DRILL, EXCAVATE, BLAST, DRIVE PIPE OR POSTS. WHEN YOU CALL, YOU MUST GIVE YOUR NAME, COMPLETE ADDRESS AND INFORMATION ABOUT WHAT YOU ARE PLANNING TO DO. SOMEONE WILL BE SENT OUT TO LOCATE ANY BURIED CABLE AND MARK THE SITE FOR YOU. IF A CABLE IS DAMAGE BEFORE THE CALL IS MADE TO THE UNDERGROUND PROTECTIVE ORGANIZATION, ANY REPAIR COSTS WILL BE CHARGED TO THE PERSON RESPONSIBLE.
3. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ENGAGE WITH AN APPROVED, PRIVATE UNDERGROUND UTILITY LOCATION AND MARK OUT COMPANY TO HAVE ALL ON-SITE UNDERGROUND UTILITIES, WITHIN THE WORK AREA, COMPLETELY LOCATED AND MARKED OUT, AT CONTRACTOR'S OWN EXPENSE.
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STORM DRAINAGE CALCULATIONS:

1. RUNOFF COEFFICIENT:
   BUILDING = 1.0
   PAVED AND IMPERVIOUS = 1.0
   LANDSCAPE = 0.3
2. EXISTING CONDITIONS RUNOFF STORAGE VOLUME
   BUILDING = 15,357 SF X 1.0 X 5"/12 = 6,398.8 CF
   PAVED = 33,538 SF X 1.0 X 5"/12 = 13,974.2 CF
   LANDSCAPE = 14,223 SF X 0.3 X 5"/12 = 1,777.9 CF
   EXISTING CONDITIONS RUNOFF = 22,150.9 CF
3. PROPOSED CONDITIONS RUNOFF STORAGE VOLUME
   BUILDING = 15,357 SF X 1.0 X 5"/12 = 6,398.8 CF
   PAVED = 40,126 SF X 1.0 X 5"/12 = 16,719.2 CF
   LANDSCAPE = 7,635 SF X 0.3 X 5"/12 = 954.4 CF
   PROPOSED CONDITIONS RUNOFF = 24,072.4 CF
4. TOTAL NET STORMWATER RUNOFF
   PROPOSED CONDITIONS RUNOFF – EXISTING CONDITIONS RUNOFF
   27,072.4 CF – 22,150.9 CF = 4,921.5 CF REQUIRED.
5. PROVIDED (3) 12'ø x 17' EFF DEPTH DRYWELLS
   3 x 17' = 100.88 CF/LF = 5,144.8 CF
6. SOIL BORING SHOULD BE PERFORMED TO DETERMINE THE APPROXIMATE ELEVATION OF RATEABLE SOIL.

LEGEND:

	EXISTING	PROPOSED
PROPERTY LINE		
CONCRETE CURB		
CONCRETE SIDEWALK		
CONCRETE SIDEWALK		
SANITARY SEWER	S S	
WATER SERVICE	W	
DRAINAGE PIPE	D D	D D
DRAINAGE MANHOLE		D
CATCH BASIN		
12' DIA. DRYWELL		
FIRE HYDRANT		
TREE		
SPOT GRADE	+139.15	+ (58.25)
TOP AND BOTTOM CURB ELEVATION		(T58.75) / (B58.25)
TOP OF RAMP AND BOTTOM GRADE AT RAMP ELEVATIONS		BG58.90 / TR60.20

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

NO.	DATE	REVISION	BY
1.	12-06-2018	SUBMIT FOR SITE PLAN REVIEW	LK

NOTE:
Under N.Y.S. Education Law Sec. 7209 Sub. 2, it is illegal for any person, unless acting under the direction of a LICENSED Professional Engineer, to alter any item on this material in any way. If any item is so altered, the Professional Engineer who so alters or who directs another to so alter, shall affix to the items his seal and the notation "altered by" followed by his signature, the date of the alteration and a specific description of the alteration.

STATE OF NEW YORK · ROBERT WILLIAM RUTTER · 072082 · LICENSED PROFESSIONAL ENGINEER

GRADING AND DRAINAGE PLAN

1542 NORTHERN BOULEVARD
MANHASSET, TOWN of NORTH HEMPSTEAD
NASSAU COUNTY, NEW YORK

LiRo Engineers, Inc.
A LiRo Group Company
Mineola, N.Y. 516-746-2350[T]

SCALE:
PLAN: 1" = 20'
PROFILE
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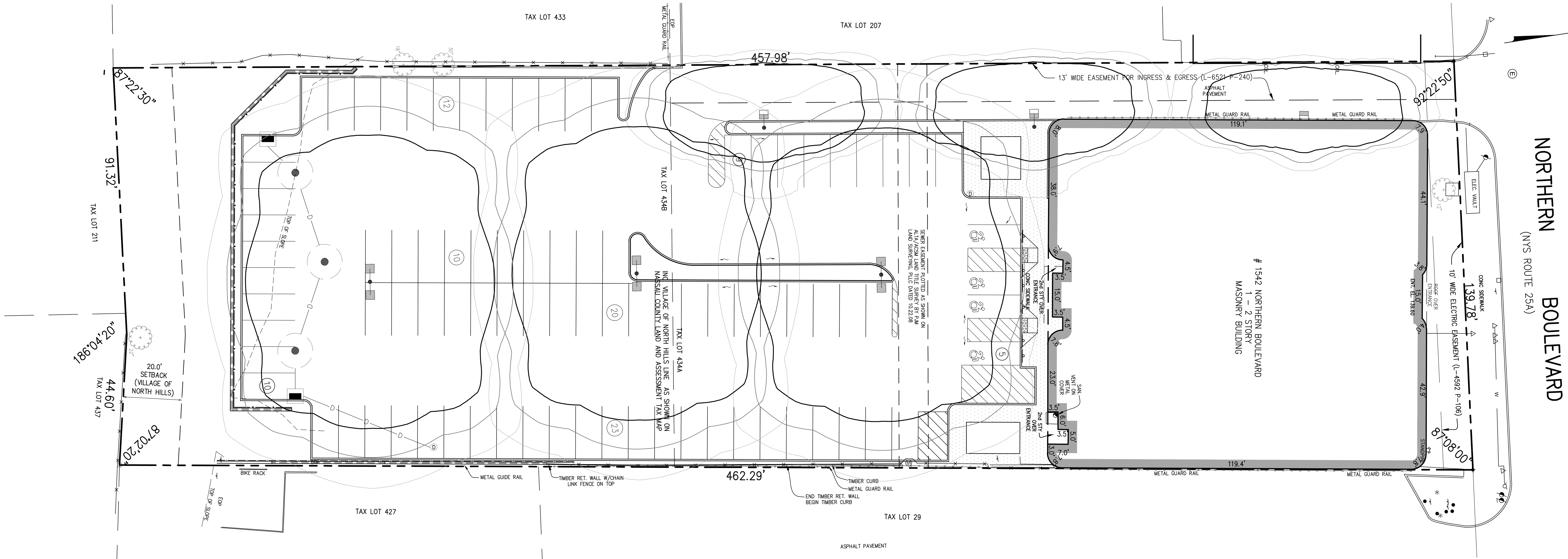
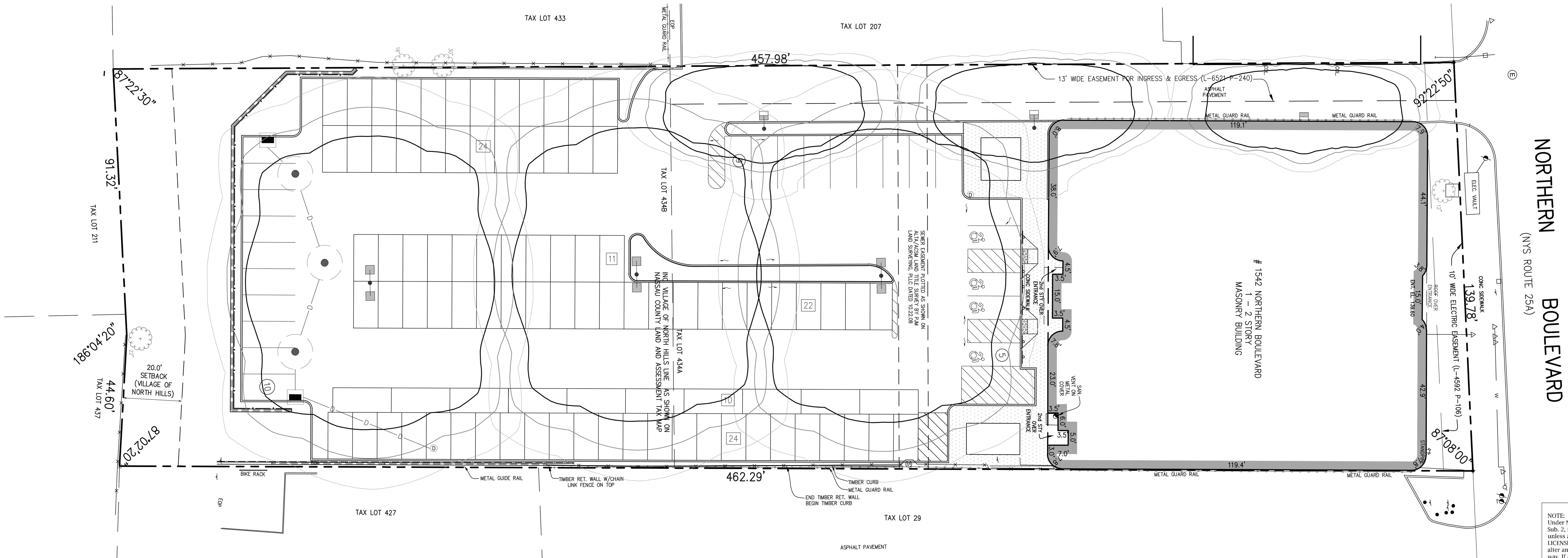
DESIGNED BY:	DRAFTED BY:	CHECKED BY:	PROJECT NO:	SHEET NUMBER
LK	IK	DK	11538316	C-2



TAX LOT 433
TAX LOT 207
457.98'
13' WIDE EASEMENT FOR INGRESS & EGRESS (L-6521 P-240)
ASPHALT PAVEMENT
METAL GUARD RAIL
119.1'
87°22'30"
92°22'50"
91.32'
TAX LOT 211
186°04'20"
20.0' SETBACK (VILLAGE OF NORTH HILLS)
44.60'
TAX LOT 437
87°02'20"
TOP OF SLOPE
TAX LOT 434B
TAX LOT 434A
INC. VILLAGE OF NORTH HILLS LINE AS SHOWN ON NASSAU COUNTY LAND AND ASSESSMENT TAX MAP
SEWER EASEMENT PLOTTED AS SHOWN ON ALTA/ACSM LAND TITLE SURVEY BY PJM LAND SURVEYING, PLLC DATED 10.22.08
1542 NORTHERN BOULEVARD
1 - 2 STORY
MASONRY BUILDING
2nd STY OVER ENTRANCE
CONC SIDEWALK
SAN. VENT ON METAL COVER
38.0'
23.0'
119.4'
44.1'
42.9'
15.0'
ENT. EL. 139.60
ROOF OVER ENTRANCE
ELEC. VAULT
CONC SIDEWALK
139.78'
10' WIDE ELECTRIC EASEMENT (L-4592 P-106)
87°08'00"
STANDPIPE
NORTHERN BOULEVARD
(NYS ROUTE 25A)
462.29'
BIKE RACK
METAL GUIDE RAIL
TIMBER RET. WALL W/CHAIN LINK FENCE ON TOP
TIMBER CURB
METAL GUARD RAIL
END TIMBER RET. WALL BEGIN TIMBER CURB
TAX LOT 427
TAX LOT 29
ASPHALT PAVEMENT
12
10
20
23
5

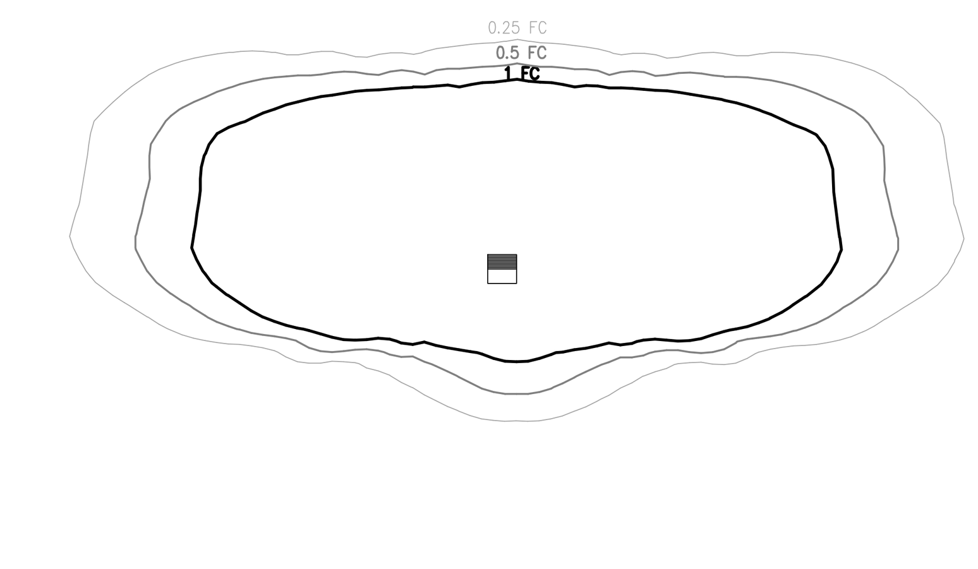
SELF PARKING LAYOUT



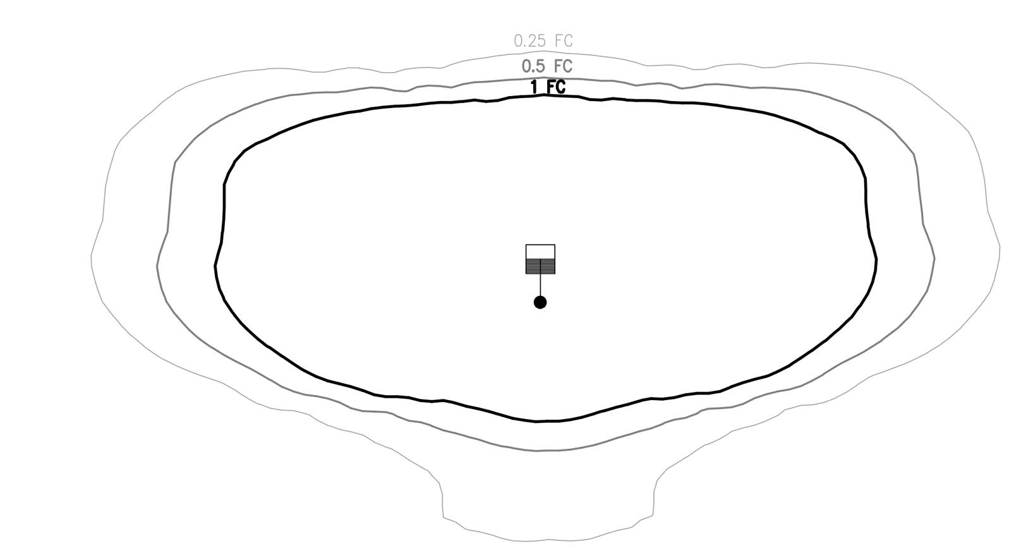
TAX LOT 433
TAX LOT 207
457.98'
13' WIDE EASEMENT FOR INGRESS & EGRESS (L-6521 P-240)
ASPHALT PAVEMENT
METAL GUARD RAIL
119.1'
87°22'30"
92°22'50"
91.32'
TAX LOT 211
186°04'20"
20.0' SETBACK (VILLAGE OF NORTH HILLS)
44.60'
TAX LOT 437
87°02'20"
TAX LOT 434B
TAX LOT 434A
INC. VILLAGE OF NORTH HILLS LINE AS SHOWN ON NASSAU COUNTY LAND AND ASSESSMENT TAX MAP
SEWER EASEMENT PLOTTED AS SHOWN ON ALTA/ACSM LAND TITLE SURVEY BY PJM LAND SURVEYING, PLLC DATED 10.22.08
1542 NORTHERN BOULEVARD
1 - 2 STORY
MASONRY BUILDING
119.4'
139.78'
10' WIDE ELECTRIC EASEMENT (L-4592 P-106)
87°08'00"
NORTHERN BOULEVARD
(NYS ROUTE 25A)
462.29'
BIKE RACK
METAL GUIDE RAIL
TIMBER RET. WALL W/CHAIN LINK FENCE ON TOP
TIMBER CURB
METAL GUARD RAIL
END TIMBER RET. WALL BEGIN TIMBER CURB
TAX LOT 427
TAX LOT 29
ASPHALT PAVEMENT
24
11
22
10
24
5

VALET PARKING LAYOUT

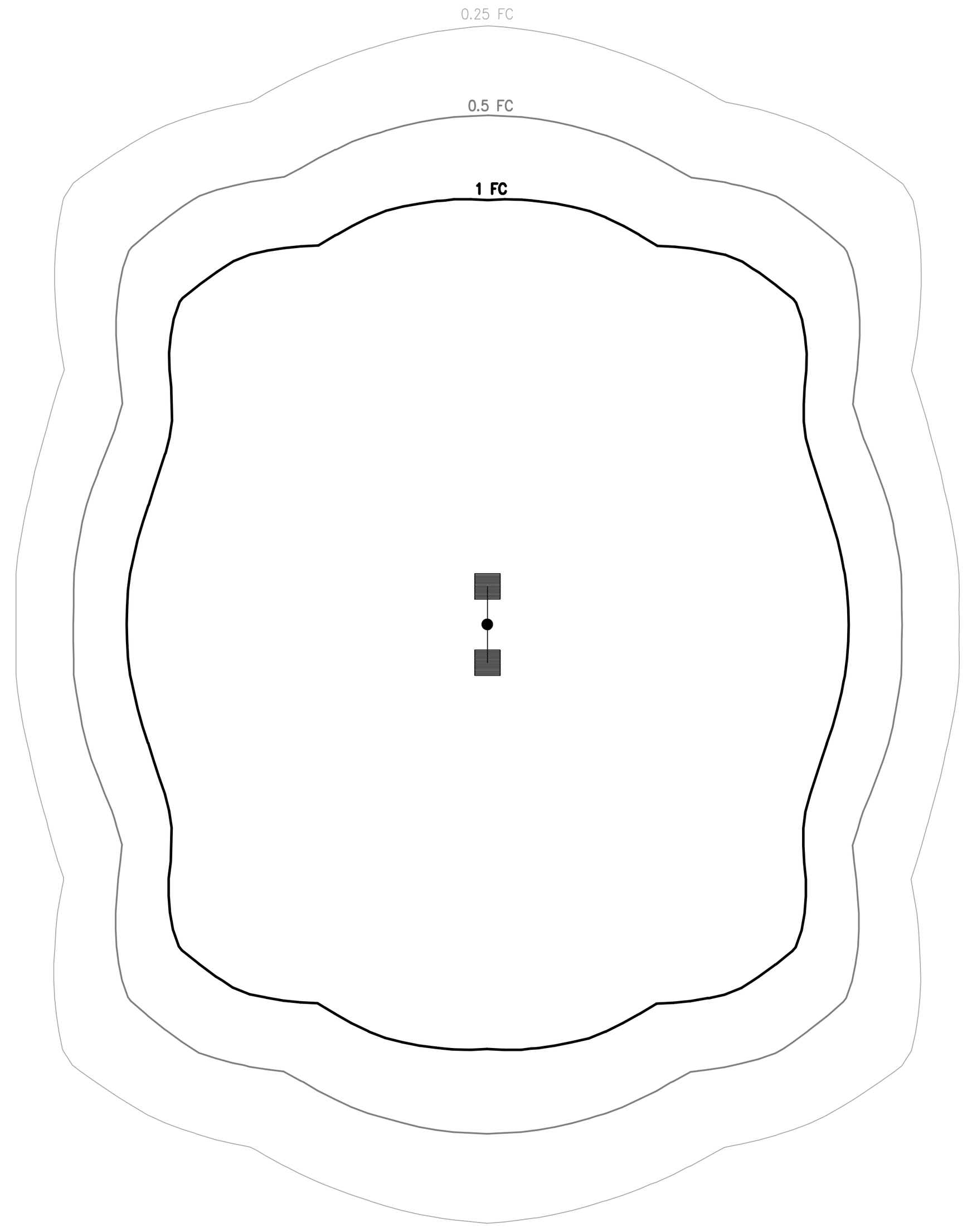
PROPOSED CREE OSQ LUMINAIRE



ISO-ILLUMINANCE CONTOURS OF A TYPE S1(T2)-12
AT 12' WALL MOUNTED



ISO-ILLUMINANCE CONTOURS OF A TYPE S1(T2)-12
AT 12' OPTICAL HEIGHT



ISO-ILLUMINANCE CONTOURS OF A TYPE D2(T4)-20
AT 20' OPTICAL HEIGHT

GRAPHIC SCALE

(IN FEET)
1 inch = 20 ft.

SYMBOLS AND LEGENDS		
SYMBOL	TYPE	DESCRIPTION
	WM(T2)-12	CREE OSQ-DA-2ME-B-57K-UL LUMINAIRE WM-DM WALL MOUNTED 12'A.F.G.
	S1(T2)-12	CREE OSQ-A-NM-2ME-B-57K-UL LUMINAIRE ON PS4S12C1 POLE
	D2(T4)-20	CREE TWIN@180 OSQ-A-NM-4ME-K-57K-UL-BZ LUMINAIRES ON PS4S20C2 POLE

STATISTICAL AREA SUMMARY					
LABEL	AVERAGE	MAXIMUM	MINIMUM	AVG/MIN	MAX/MIN
DRIVEWAY	2.0 FC	13.5 FC	0.1 FC	20:1	135:1
PARKING AREAS	4.5 FC	10.0 FC	1.1 FC	4.1:1	9.0:1

THIS LIGHTING PLAN ILLUSTRATES ILLUMINATION LEVELS CALCULATED FROM LABORATORY DATA TAKEN UNDER CONTROLLED CONDITIONS IN ACCORDANCE WITH ILLUMINATING ENGINEERING SOCIETY OF NORTH AMERICA (IESNA) APPROVED METHODS. ACTUAL SITE ILLUMINATION LEVELS AND PERFORMANCE OF LUMINAIRES MAY VARY DUE TO VARIATIONS IN WEATHER, ELECTRICAL VOLTAGE, LAMP TOLERANCES, AND OTHER VARIABLE FIELD CONDITIONS.

NO.	DATE	REVISION	BY
1.	12-06-2018	SUBMIT FOR SITE PLAN REVIEW	LK

STATE OF NEW YORK
ROBERT WILLIAM HUTTEMAN
072062
LICENSED PROFESSIONAL ENGINEER

[illegible]

LIGHTING PHOTOMETRIC PLAN

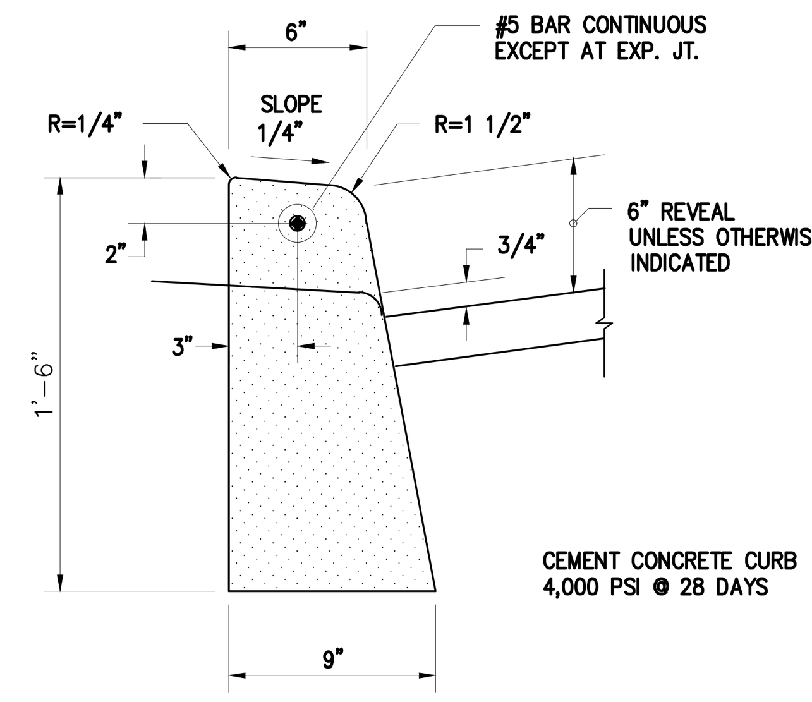
1542 NORTHERN BOULEVARD
MANHASSET, TOWN of NORTH HEMPSTEAD
NASSAU COUNTY, NEW YORK

LiRo Engineers, Inc.
A LiRo Group Company
Mineola, N.Y. 516-746-2350[T]

SCALE:
PLAN: 1" = 20'
PROFILE
HORIZ:
VERT:

DATE:
MAY 2, 2018

DESIGNED BY:	DRAFTED BY:	CHECKED BY:	PROJECT NO:	SHEET NUMBER
LK	IK	DK	11538316	C-3



TYPICAL SECTION

TOLERANCES

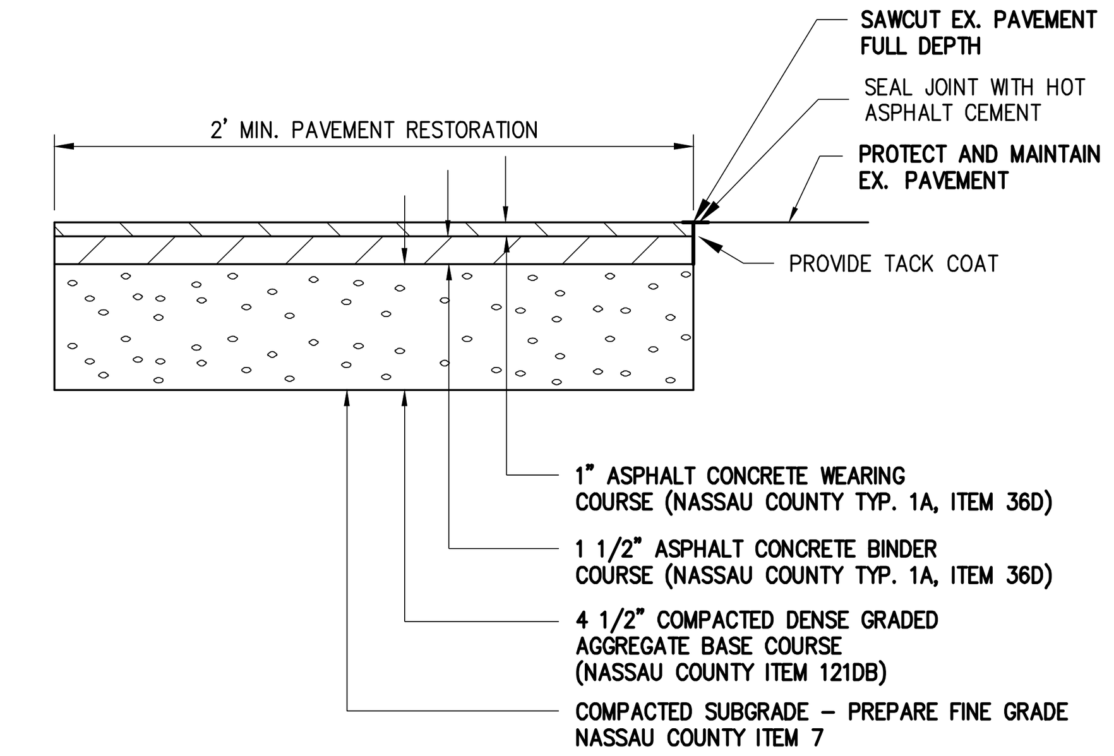
A. THE TOP OF CURB (AT THE OUTSIDE OR NON-EXPOSED FACE) AND THE FLOW LINE OF CONCRETE GUTTER SHALL NOT VARY MORE THAN 0.01 FT. FROM A 10 FT. STRAIGHT EDGE PLACED LONGITUDINALLY ALONG THE CURB OR AT THE FLOW LINE OF THE GUTTER.

B. THE FACE OF CURB SHALL NOT VARY MORE THAN 0.03 FT. FROM A 10 FT. STRAIGHT EDGE PLACED LONGITUDINALLY ALONG THE FLOW LINE.

C. THE ELEVATION OF THE TOP OF CURB OR FLOW LINE OF GUTTER SHALL NOT VARY MORE THAN 0.02 FT. FROM THE TRUE ELEVATION LAID OUT IN THE FIELD BY THE ENGINEER.

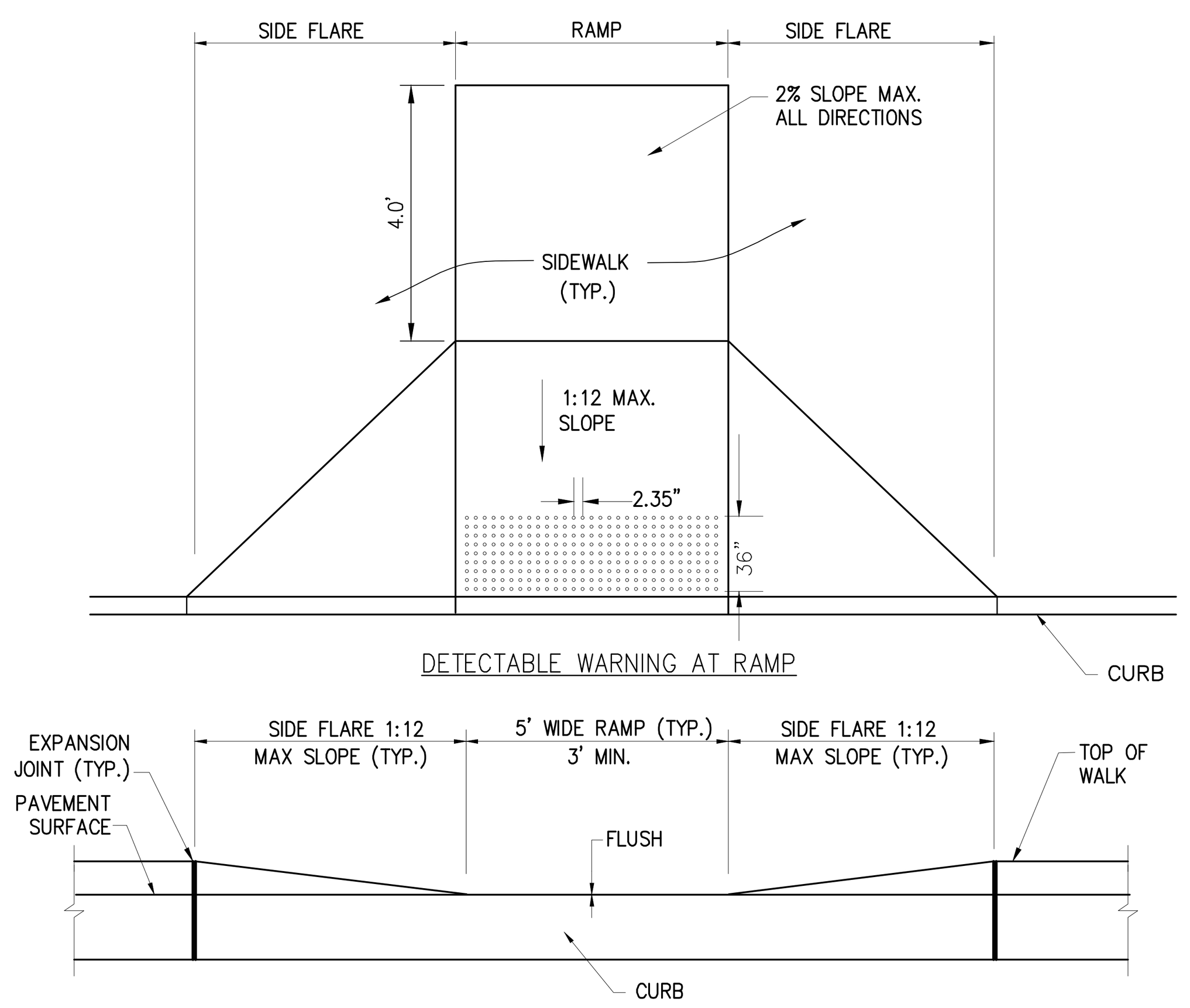
CEMENT CONCRETE CURB

NOT TO SCALE



ASPHALT PAVEMENT SECTION

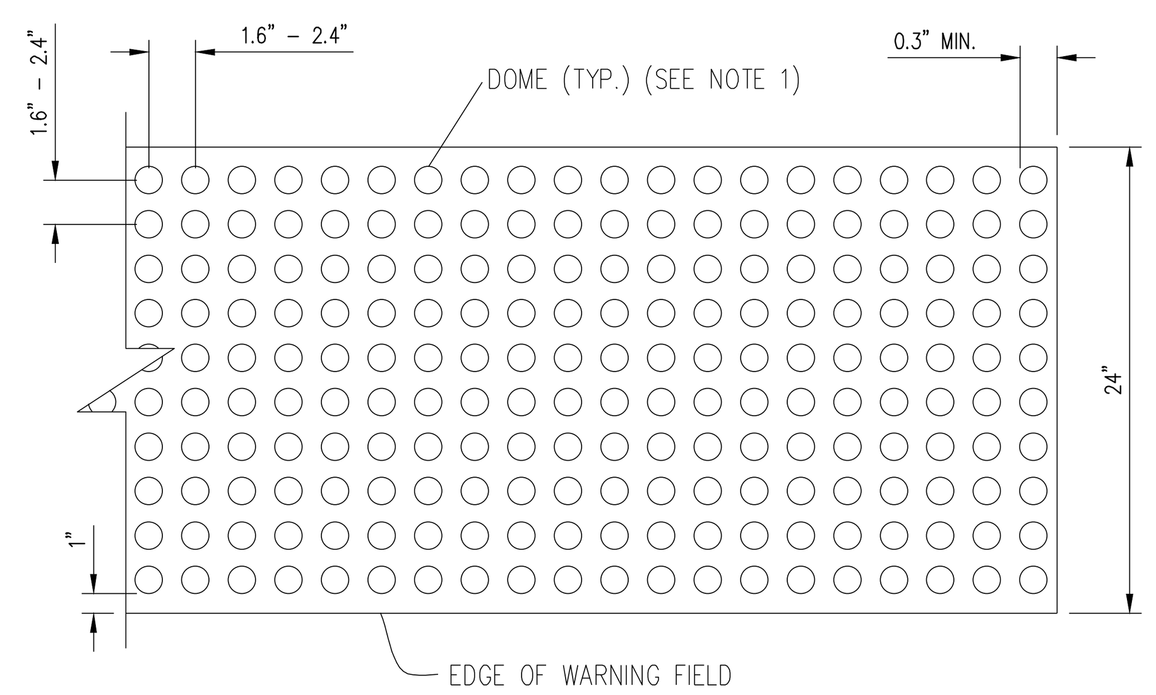
NOT TO SCALE



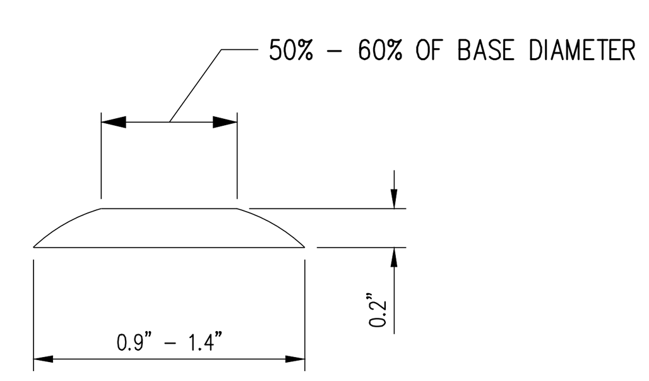
ON SITE – CURB RAMP

ACCESSIBLE RAMPS

NOT TO SCALE



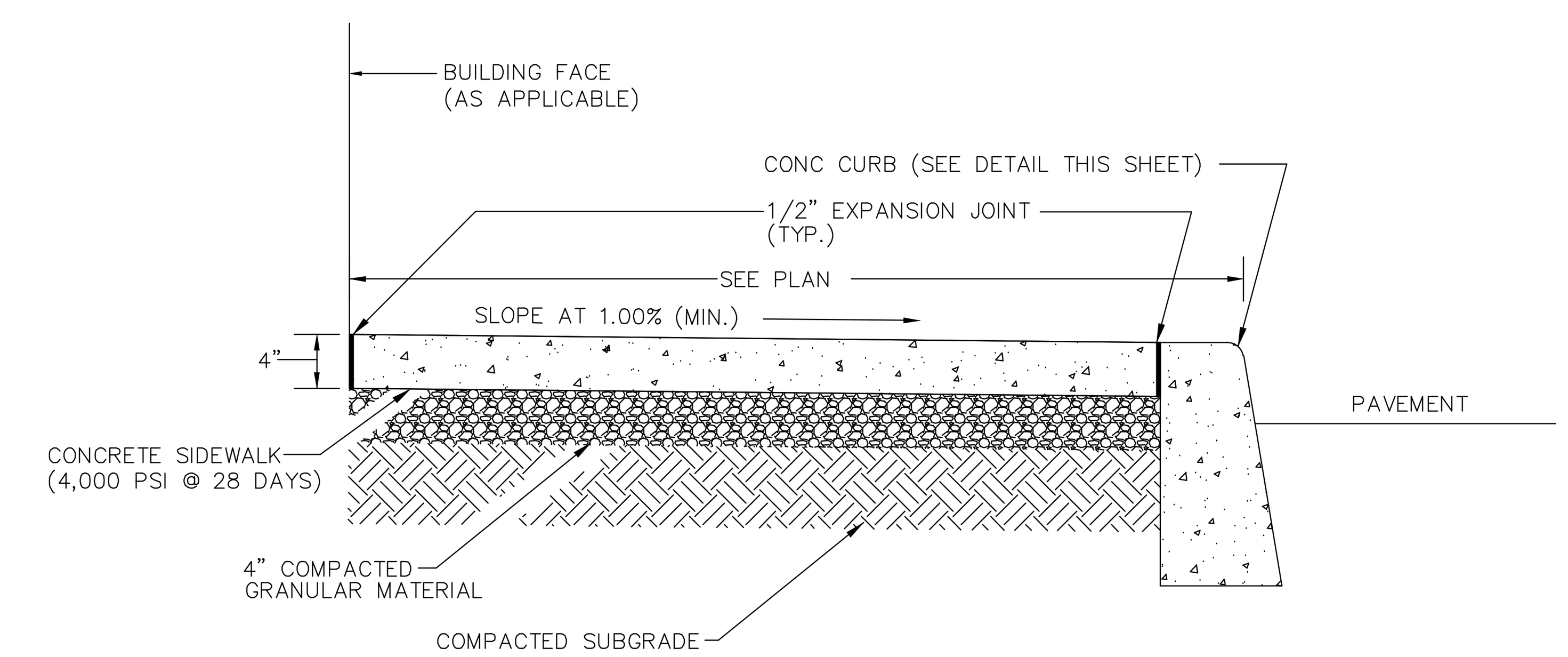
DOME SPACING



DOME SECTION

ACCESSIBLE RAMP NOTES:

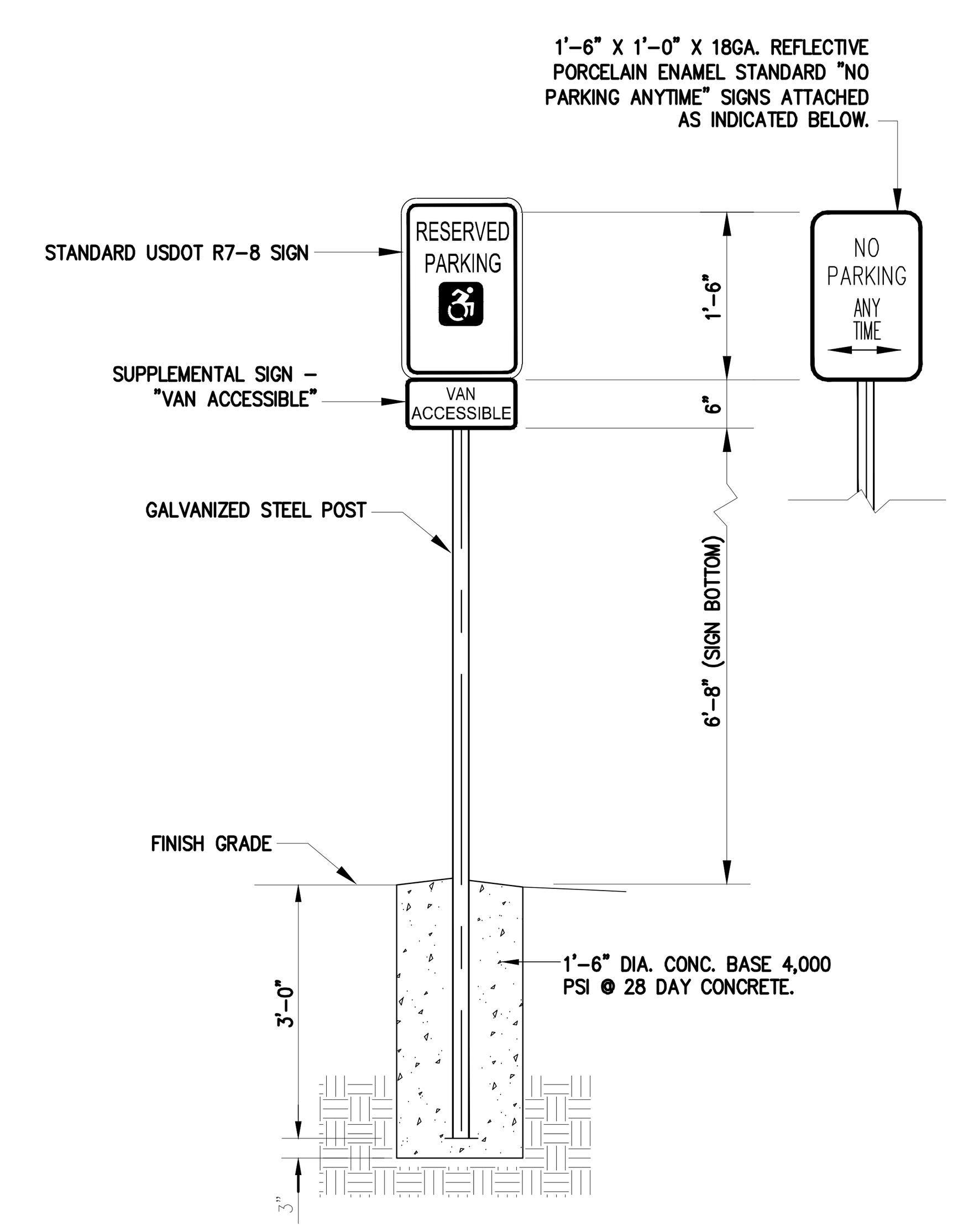
1. CURB CUTS FOR ACCESSIBLE RAMPS SHALL BE LOCATED AS SHOWN ON THE PLANS AND/OR AS DIRECTED BY THE ENGINEER.
2. ABUTTING SIDEWALK GRADES SHALL BE MODIFIED AS REQUIRED TO CONFORM TO ACCESSIBLE RAMP REQUIREMENTS.
3. THE NORMAL FLOW LINE PROFILE SHALL BE MAINTAINED THROUGH THE AREA OF THE ACCESSIBLE RAMP.
4. THE SURFACE OF THE ACCESSIBLE RAMP SHALL BE BROOM FINISHED TO PROVIDE A ROUGH SKID-PROOF SURFACE. THE TEXTURE OF THE FINISH SHALL BE APPROVED BY THE ENGINEER.
5. THE DETAILS PROVIDED ARE NOT DRAWN TO SCALE. THE QUANTITY OF DOMES DEPICTED ON THE DETECTABLE WARNING FIELD ARE FOR ILLUSTRATION ONLY.
6. DETECTABLE WARNINGS SHALL BE LOCATED SO THAT THE EDGE OF THE WARNING FIELD NEAREST TO THE ROADWAY OR STREET SURFACE IS 6" FROM THE EDGE OF THE ROADWAY/STREET, OR FROM THE FACE OF THE DROPPED CURB, WHERE A DROPPED CURB CONTINUES ACROSS THE BOTTOM OF THE SIDEWALK CURB RAMP. THE DETECTABLE WARNINGS SHALL EXTEND THE FULL WIDTH OF THE CURB RAMP OR FLUSH SURFACE.
7. DOME ALIGNMENT. DOMES SHALL BE ALIGNED ON A SQUARE GRID IN THE PREDOMINANT DIRECTION OF TRAVEL.
8. THE DETECTABLE WARNING FIELD SHALL BE INTEGRALLY COLORED YELLOW CONCRETE OR AS DIRECTED BY OWNER.
9. ACCESSIBLE RAMPS AND CURB RAMPS WHERE POURING OF A SEPARATE INTEGRALLY COLORED CONCRETE IS REQUIRED, INSTALL SHEAR DOWELS 2'-0" O.C. AND KEYWAYS TO PREVENT HEAVING OF RAMPS WITH ADJACENT SIDEWALK OR CONCRETE SURFACE.
10. PAVER MANUFACTURERS OR APPROVED EQUAL:
 –HANOVER ARCHITECTURAL PRODUCTS, DETECTABLE WARNING PAVERS
 –TEKWAY – DETECTABLE WARNING SYSTEM
 –NUWAY, CAST IN TACT, DETECTABLE WARNING PAVERS



NOTES:
1. PROVIDE EXPANSION JOINTS @ 20' C.C. AND AT SIDEWALK INTERFACE WITH CURB.
2. PROVIDE CONTROL JOINTS @ SPACING EQUAL TO THE WIDTH OF SIDEWALK.
3. PROVIDE COMPRESSIBLE FILLER (3/4" MAX.). CUT BACK AND PROVIDE SEALANT AT ALL FILLER JOINTS.

CONCRETE SIDEWALK DETAIL

NOT TO SCALE



ACCESSIBILITY PARKING SIGN

NOT TO SCALE

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STATE OF NEW YORK
ROBERT WILLIAM HUTTEMANN
072062
LICENSED PROFESSIONAL ENGINEER
[illegible]

SITE DETAILS

1542 NORTHERN BOULEVARD
MANHASSET, TOWN of NORTH HEMPSTEAD
NASSAU COUNTY, NEW YORK

LiRo Engineers, Inc.
A LiRo Group Company
Mineola, N.Y. 516-746-2350[T]

SCALE:
PLAN: AS SHOWN
PROFILE
HORIZ:
VERT:

DATE: NOVEMBER, 2018

DESIGNED BY:	DRAFTED BY:	CHECKED BY:	PROJECT NO:	SHEET NUMBER
LK	IK	DK	11538316	C-4

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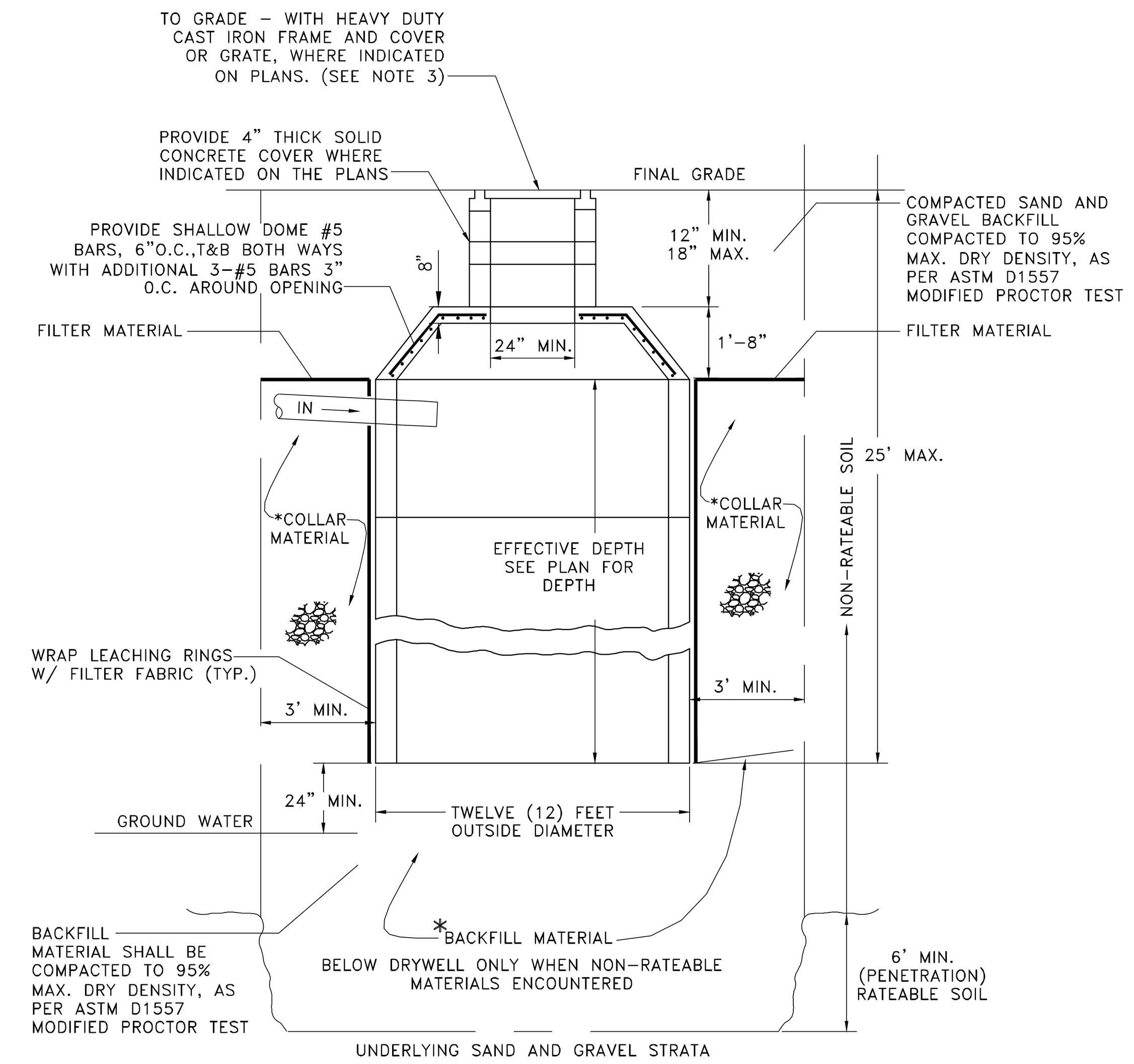
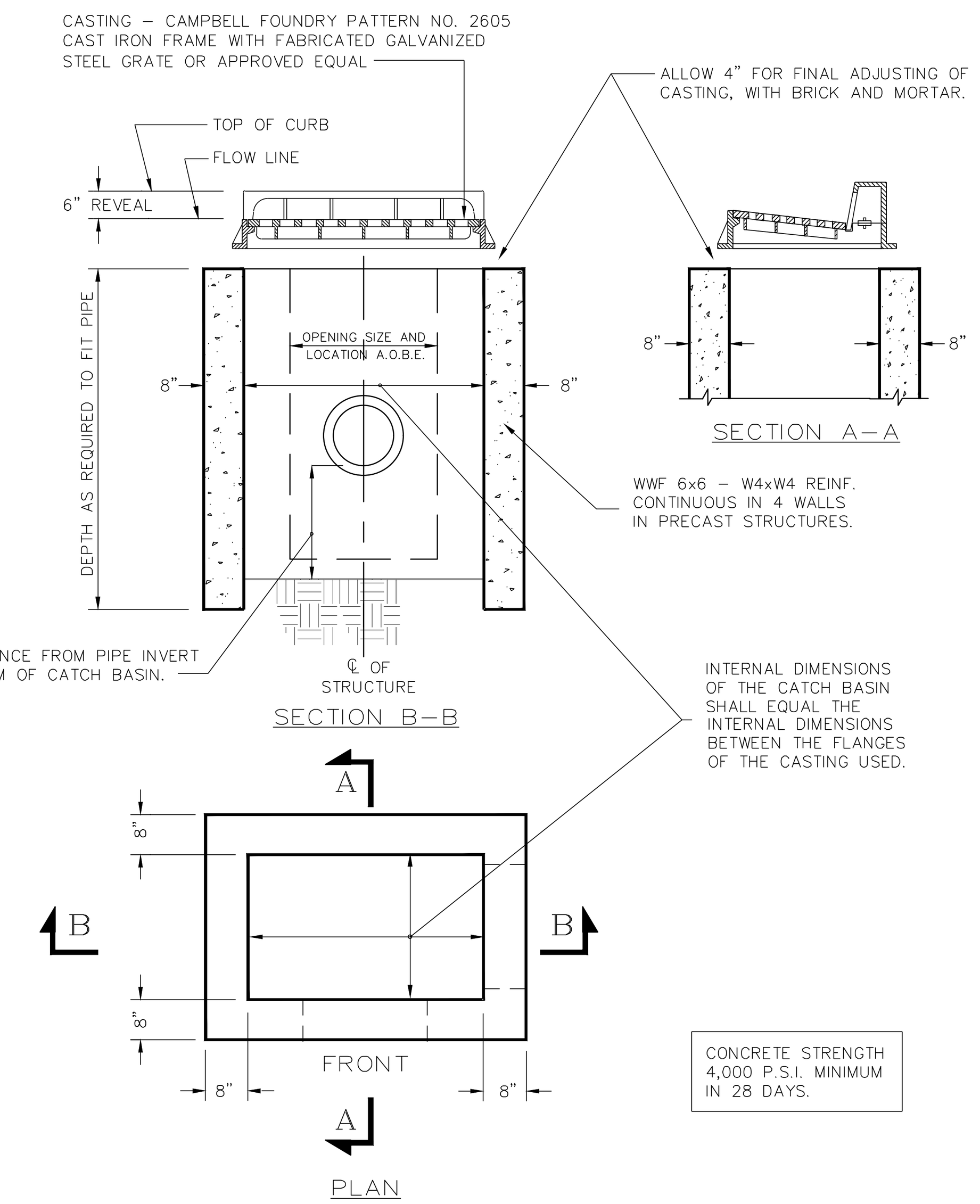

TO GRADE – WITH HEAVY DUTY CAST IRON FRAME AND COVER OR GRATE, WHERE INDICATED ON PLANS. (SEE NOTE 3)
PROVIDE 4" THICK SOLID CONCRETE COVER WHERE INDICATED ON THE PLANS
FINAL GRADE
PROVIDE SHALLOW DOME #5 BARS, 6"O.C.,T&B BOTH WAYS WITH ADDITIONAL 3-#5 BARS 3" O.C. AROUND OPENING
8"
12" MIN.
18" MAX.
COMPACTED SAND AND GRAVEL BACKFILL COMPACTED TO 95% MAX. DRY DENSITY, AS PER ASTM D1557 MODIFIED PROCTOR TEST
FILTER MATERIAL
24" MIN.
1'-8"
FILTER MATERIAL
IN
25' MAX.
NON-RATEABLE SOIL
*COLLAR MATERIAL
EFFECTIVE DEPTH SEE PLAN FOR DEPTH
*COLLAR MATERIAL
WRAP LEACHING RINGS W/ FILTER FABRIC (TYP.)
3' MIN.
3' MIN.
24" MIN.
GROUND WATER
TWELVE (12) FEET OUTSIDE DIAMETER
BACKFILL MATERIAL SHALL BE COMPACTED TO 95% MAX. DRY DENSITY, AS PER ASTM D1557 MODIFIED PROCTOR TEST
*BACKFILL MATERIAL
BELOW DRYWELL ONLY WHEN NON-RATEABLE MATERIALS ENCOUNTERED
6' MIN. (PENETRATION) RATEABLE SOIL
UNDERLYING SAND AND GRAVEL STRATA

* NOTES

1. COLLAR MATERIAL FOR ALL DRYWELLS SHALL BE TYP. 2, 1" SIZE GRAVEL OR BROKEN STONE.
2. THE MATERIAL USED FOR BACKFILL UNDER THE RINGS SHALL BE COMPRISED OF SAND AND GRAVEL FILTER MATERIAL CONTAINING LESS THAN FIFTEEN (15) PERCENT FINE SAND. SILT AND CLAY (SILT AND CLAY FRACTIONS ARE NOT TO EXCEED FIVE (5) PERCENT).
3. HEAVY DUTY MANHOLE FRAME AND COVER OR GRATE SHALL BE CAMPBELL PATTERN NO. 1007C OR 1182C OR APPROVED EQUAL.

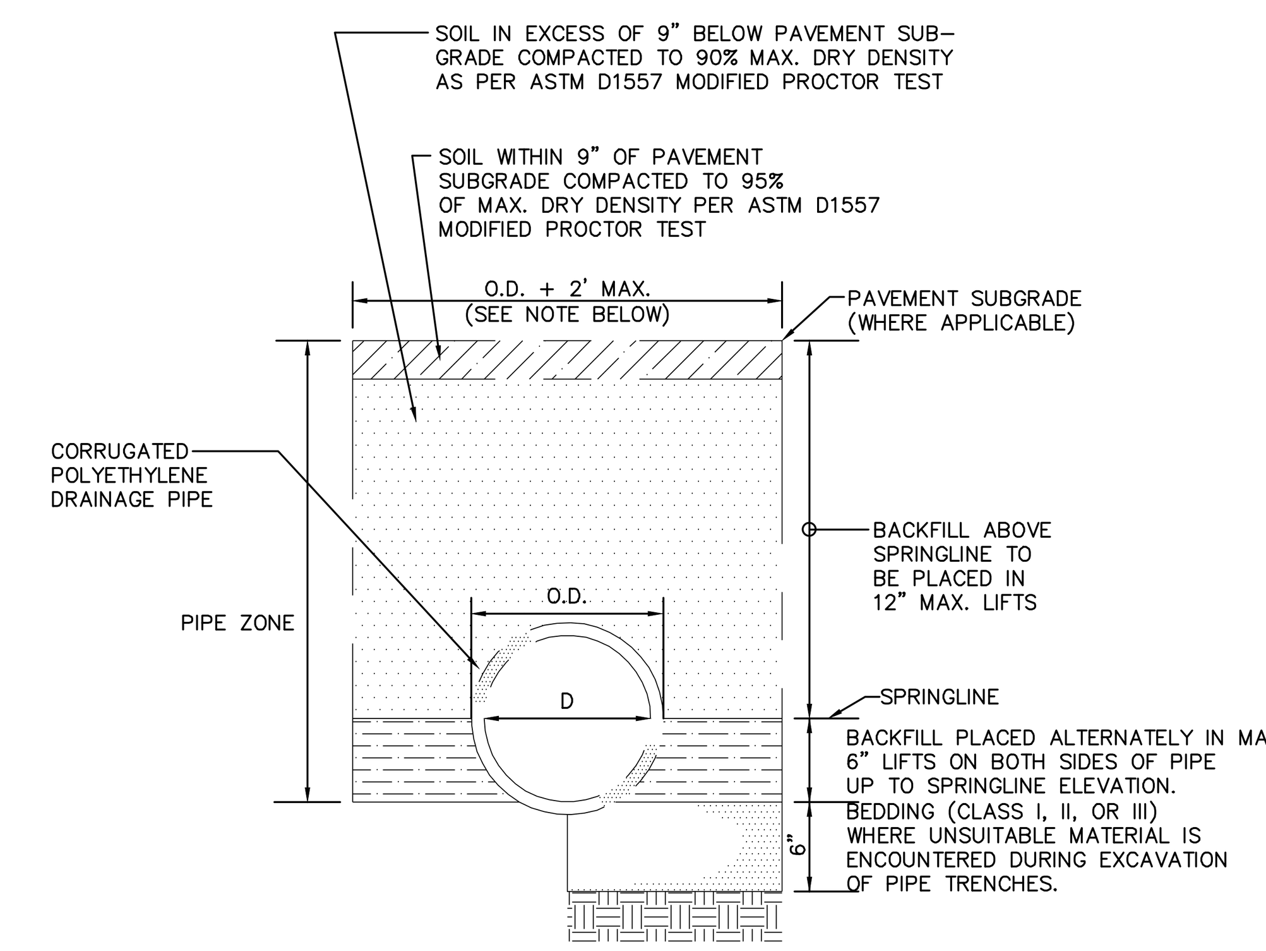
TYPICAL DRYWELL DETAIL

NOT TO SCALE


CASTING – CAMPBELL FOUNDRY PATTERN NO. 2605 CAST IRON FRAME WITH FABRICATED GALVANIZED STEEL GRATE OR APPROVED EQUAL
ALLOW 4" FOR FINAL ADJUSTING OF CASTING, WITH BRICK AND MORTAR.
TOP OF CURB
FLOW LINE
6" REVEAL
DEPTH AS REQUIRED TO FIT PIPE
OPENING SIZE AND LOCATION A.O.B.E.
8"
8"
8"
8"
SECTION A–A
WWF 6x6 – W4xW4 REINF. CONTINUOUS IN 4 WALLS IN PRECAST STRUCTURES.
2' CLEARANCE FROM PIPE INVERT TO BOTTOM OF CATCH BASIN.
℄ OF STRUCTURE
SECTION B–B
INTERNAL DIMENSIONS OF THE CATCH BASIN SHALL EQUAL THE INTERNAL DIMENSIONS BETWEEN THE FLANGES OF THE CASTING USED.
A
B
B
8"
8"
FRONT
8"
8"
A
PLAN
CONCRETE STRENGTH 4,000 P.S.I. MINIMUM IN 28 DAYS.

CATCH BASIN

NOT TO SCALE


SOIL IN EXCESS OF 9" BELOW PAVEMENT SUB-GRADE COMPACTED TO 90% MAX. DRY DENSITY AS PER ASTM D1557 MODIFIED PROCTOR TEST
SOIL WITHIN 9" OF PAVEMENT SUBGRADE COMPACTED TO 95% OF MAX. DRY DENSITY PER ASTM D1557 MODIFIED PROCTOR TEST
O.D. + 2' MAX. (SEE NOTE BELOW)
PAVEMENT SUBGRADE (WHERE APPLICABLE)
CORRUGATED POLYETHYLENE DRAINAGE PIPE
BACKFILL ABOVE SPRINGLINE TO BE PLACED IN 12" MAX. LIFTS
PIPE ZONE
O.D.
D
SPRINGLINE
BACKFILL PLACED ALTERNATELY IN MAX. 6" LIFTS ON BOTH SIDES OF PIPE UP TO SPRINGLINE ELEVATION.
BEDDING (CLASS I, II, OR III) WHERE UNSUITABLE MATERIAL IS ENCOUNTERED DURING EXCAVATION OF PIPE TRENCHES.
6"

NOTES:
1. CLASS I, II, OR III COMPACTED BACKFILL MATERIAL REQUIRED IN ALL PIPE ZONES, PER USCS (UNIFIED SOIL CLASSIFICATIONS SYSTEM).
2. IF DEPTH OF TRENCH EXCEEDS 5', THE CONTRACTOR MUST PROVIDE SHEETING AND BRACING OR A SHEETING BOX IN ACCORDANCE WITH OSHA REGULATIONS. AS AN ALTERNATIVE, IF PERMITTED BY THE ENGINEER, THE TRENCH WALLS MAY BE CUT BACK TO A 1:1 SLOPE OR THE NATURAL ANGLE OF REPOSE FOR THE SOIL, WHICHEVER IS GREATER.
3. WHERE PIPE IS INSTALLED WITH LESS THAN 3' OF COVER WITHIN PAVEMENT AREAS, ALL BACKFILL MATERIAL THROUGHOUT THE PIPE ZONE IS TO BE CLASS I MATERIAL.

DRAINAGE PIPE TRENCH DETAIL

NOT TO SCALE

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072062
LICENSED PROFESSIONAL ENGINEER
[illegible]

DRAINAGE DETAILS

1542 NORTHERN BOULEVARD
MANHASSET, TOWN of NORTH HEMPSTEAD
NASSAU COUNTY, NEW YORK

LiRo Engineers, Inc.
A LiRo Group Company
Mineola, N.Y. 516-746-2350[T]

SCALE:
PLAN: AS SHOWN
PROFILE
HORIZ:
VERT:

DATE: NOVEMBER, 2018

DESIGNED BY:	DRAFTED BY:	CHECKED BY:	PROJECT NO:	SHEET NUMBER
LK	IK	DK	11538316	C-5

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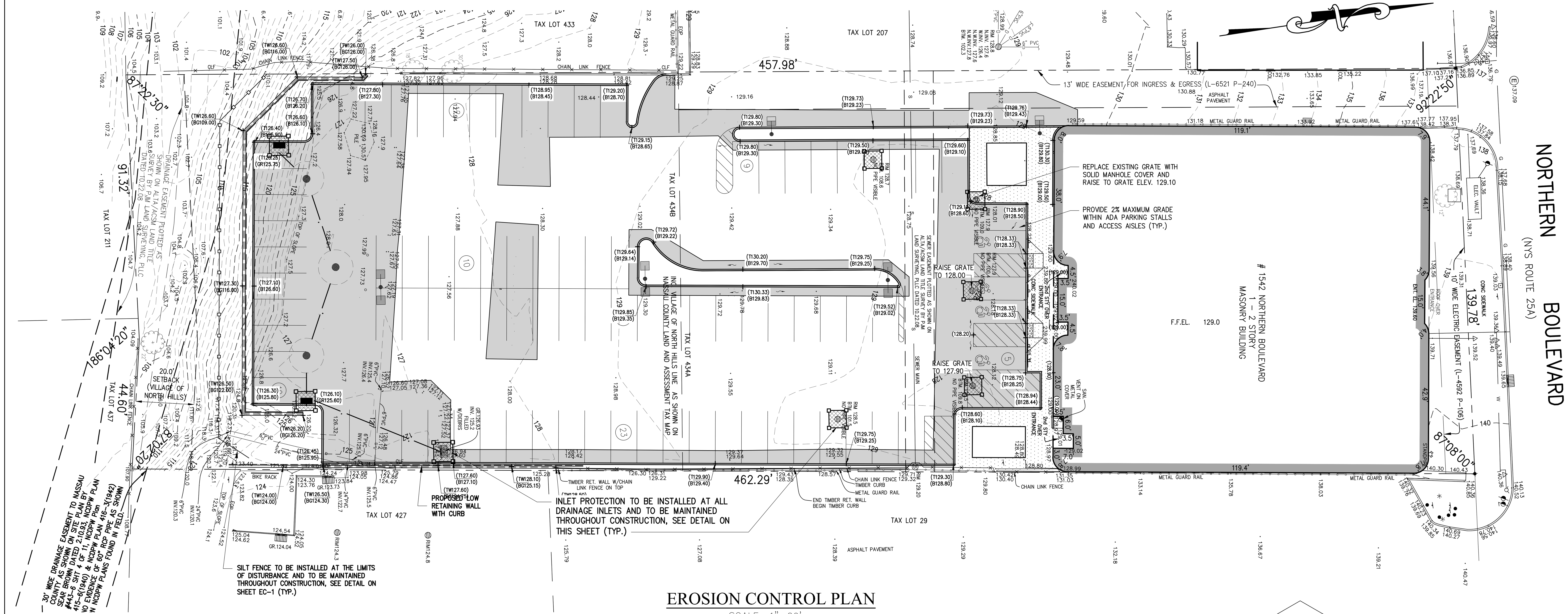


EROSION CONTROL PLAN

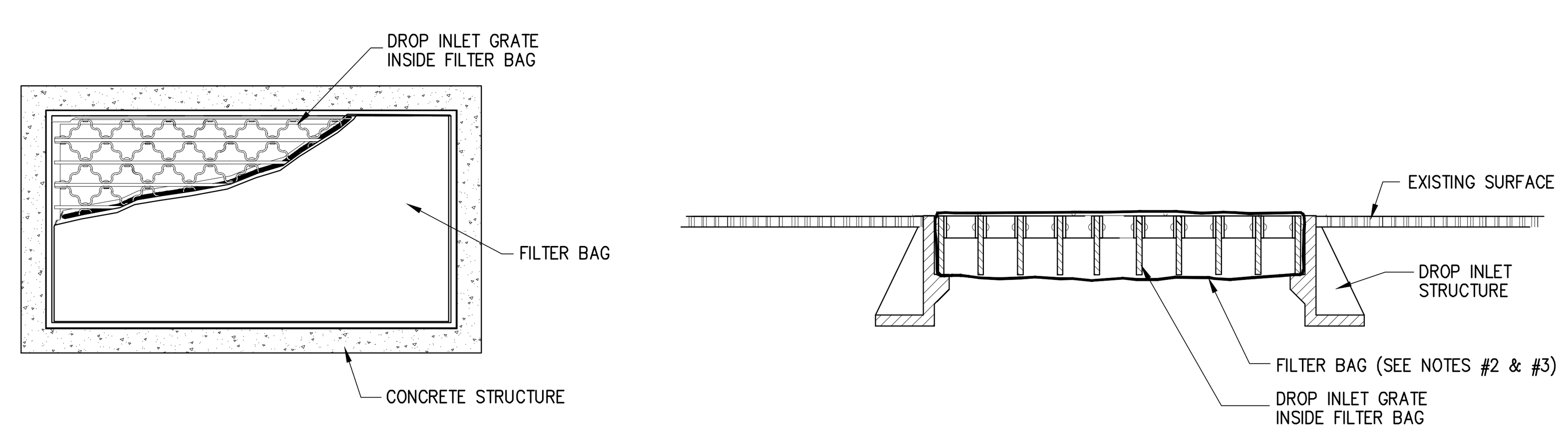
SCALE: 1"=20'

EROSION CONTROL MEASURES:

1. DURING THE COURSE OF CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR IMPLEMENTING EROSION CONTROL MEASURES NECESSARY TO PREVENT THE TRANSPORT OF SEDIMENT TO OFF-SITE AREAS, DRAINAGE INLETS, ETC. ACTUAL EROSION CONTROL MEASURES WILL BE DICTATED BY FIELD CONDITIONS AS CONSTRUCTION PROGRESSES AND AS DIRECTED BY THE ENGINEER. THE FOLLOWING CONDITIONS SHALL BE OBSERVED:
   A. EXISTING VEGETATION TO REMAIN SHALL BE PROTECTED AND REMAIN UNDISTURBED. PROVIDE CONSTRUCTION FENCE AT LIMITS OF DISTURBANCE.
   B. CLEARING AND GRADING SHALL BE SCHEDULED SO AS TO MINIMIZE THE SIZE OF EXPOSED AREAS AND THE LENGTH OF TIME THAT AREAS ARE EXPOSED.
   C. THE LENGTH AND STEEPNESS OF CLEARED SLOPES SHALL BE MINIMIZED TO REDUCE RUNOFF VELOCITIES.
   D. RUNOFF SHALL BE DIVERTED AWAY FROM CLEARED SLOPES.
   E. SEDIMENT SHALL BE TRAPPED ON THE SITE.
   F. SPECIFIC METHODS AND MATERIALS EMPLOYED IN THE INSTALLATION AND MAINTENANCE OF EROSION CONTROL MEASURES SHALL CONFORM TO THE "NEW YORK GUIDELINES FOR EROSION AND SEDIMENT CONTROL."
2. ALL SILT FENCES AND STABILIZED CONSTRUCTION ENTRANCES SHALL BE INSTALLED PRIOR TO ANY GRADING WORK ALONG THE LIMITS OF DISTURBANCES AND SHOULD BE MAINTAINED FOR THE DURATION OF THE WORK. NO SEDIMENT FROM THE SITE SHALL BE PERMITTED TO WASH ONTO OR ENTER ADJACENT PROPERTIES, WETLANDS, ROADS, STORM DRAINS, WATER COURSES, ETC. THE CONTRACTOR SHALL BE RESPONSIBLE FOR KEEPING ALL PAVED SURFACES (ROADWAYS, PARKING FIELDS, ETC.) CLEAN FOR THE DURATION OF THE CONTRACT. ALL MATERIALS SPILLED, DROPPED, WASHED OR TRACKED ONTO THE PAVED SURFACES BY THE CONTRACTOR SHALL BE REMOVED IMMEDIATELY.
3. GRADED AND STRIPPED AREAS AND STOCKPILES SHALL BE KEPT STABILIZED THROUGH THE USE OF TEMPORARY SEEDING AS REQUIRED. SEED MIXTURES SHALL BE IN ACCORDANCE WITH SOIL CONSERVATION SERVICE RECOMMENDATIONS. WHEN FINAL GRADING IS COMPLETE, THE CONTRACTOR SHALL COMPLETE THE WORK OF TURF ESTABLISHMENT WITHIN FOUR DAYS OR OTHERWISE STABILIZE THE AREA IF THE SEASON IS NOT APPROPRIATE FOR TURF ESTABLISHMENT. IN THIS CASE THE CONTRACTOR SHALL STABILIZE WITHIN 21 DAYS OF COMPLETING THE FINAL GRADING, WITH HAY OR STRAW MULCH, OR OTHER APPROVED OR SPECIFIED MEANS UNTIL TURF ESTABLISHMENT CAN BE COMPLETED.
4. DRAINAGE INLETS INSTALLED AS PART OF THE PROJECT SHALL BE PROTECTED FROM SEDIMENT BUILDUP THROUGH THE USE OF SEDIMENT BARRIERS, SEDIMENT TRAPS, ETC., AS REQUIRED. CONTROLS SHALL REMAIN IN PLACE UNTIL THE DISTURBED AREAS DRAINING TO THE INLET HAVE BEEN STABILIZED BY EITHER PAVING, SEEDING, OR SLOPE PROTECTION.
5. PROPER MAINTENANCE OF EROSION CONTROL MEASURES IS TO BE PERFORMED BY THE CONTRACTOR AS INDICATED BY PERIODIC INSPECTION AND AFTER HEAVY OR PROLONGED STORMS. MAINTENANCE MEASURES INCLUDE, BUT ARE NOT LIMITED TO, CLEANING OF SEDIMENT BASINS OR TRAPS, CLEANING OR REPAIR OF SEDIMENT BARRIERS, CLEANING AND REPAIR OF BERMS AND DIVERSIONS AND CLEANING AND REPAIR OF INLET PROTECTION.
6. APPROPRIATE MEANS SHALL BE USED TO CONTROL DUST DURING CONSTRUCTION.
7. A STABILIZED CONSTRUCTION ENTRANCE SHALL BE MAINTAINED TO PREVENT SOIL AND LOOSE DEBRIS FROM BEING TRACKED ONTO LOCAL ROADS. THE CONSTRUCTION ENTRANCE SHALL BE MAINTAINED UNTIL THE SITE IS PERMANENTLY STABILIZED. WATER FOR WASHING TRUCKS AND TIRES MUST BE AVAILABLE.
8. SEDIMENT BARRIERS AND OTHER EROSION CONTROL MEASURE SHALL REMAIN IN PLACE UNTIL UPLAND DISTURBED AREAS ARE PERMANENTLY STABILIZED. AFTER PERMANENT STABILIZATION, PAVED AREAS SHALL BE CLEANED AND DRAINAGE SYSTEMS CLEANED AND FLUSHED AS NECESSARY.
9. IN THE EVENT DEWATERING OPERATIONS BECOME NECESSARY, FILTRATION OF THE DISCHARGE WILL BE REQUIRED, UNLESS THE PUMP DISCHARGE IS CLEAR AND FREE OF SEDIMENT. THE LOCATION AND DESIGN OF THIS FILTRATION METHOD SHALL BE PREPARED BY THE CONTRACTOR, AT NO ADDITIONAL EXPENSE TO THE OWNER, AND THEN REVIEWED AND APPROVED BY THE ENGINEER, PRIOR TO IT'S IMPLEMENTATION.
10. TEMPORARY SOIL EROSION AND WATER POLLUTION CONTROL MEASURES INDICATED ON THIS PLAN SHALL BE CONSIDERED AS THE MINIMUM REQUIRED.
11. INLET PROTECTION TO BE PROVIDED FOR ALL OFF-SITE DRAINAGE INLETS WITHIN 500 FEET OF SUBJECT PROPERTY. ONLY FILTER BAG DROP INLET PROTECTION MAY BE USED ON ALL EXISTING OFF-SITE DROP INLETS.
12. INLET PROTECTION IS TO BE PROVIDED AT ALL ON-SITE STORMWATER INLETS AS THE DRAINAGE STRUCTURES ARE INSTALLED. CONTRACTOR MAY USE EITHER OF THE TWO (2) DETAILED TYPES OF DROP INLET PROTECTION ON THE PROPOSED, ON-SITE DROP INLETS.
13. LOCATIONS OF STOCKPILES, CONSTRUCTION ENTRANCES, SILT FENCE, CONSTRUCTION TRAILERS, CONCRETE WASHOUTS, ETC. ARE SHOWN SCHEMATICALLY. THE CONTRACTOR IS TO FINALIZE THE LOCATIONS OF ALL EROSION CONTROL MEASURES IN THE FIELD. IT IS THE CONTRACTORS RESPONSABILITY TO ENSURE THAT ADEQUATE LEVELS OF EROSION AND SEDIMENT CONTROL ARE MET.
14. SILT FENCE IS TO BE INSTALLED AT THE PERIMETER OF ALL STOCK PILES AT THE TOE OF SLOPE. THIS SILT FENCE IS TO BE MAINTAINED THROUGHOUT THE DURATION OF THE STOCK PILE.

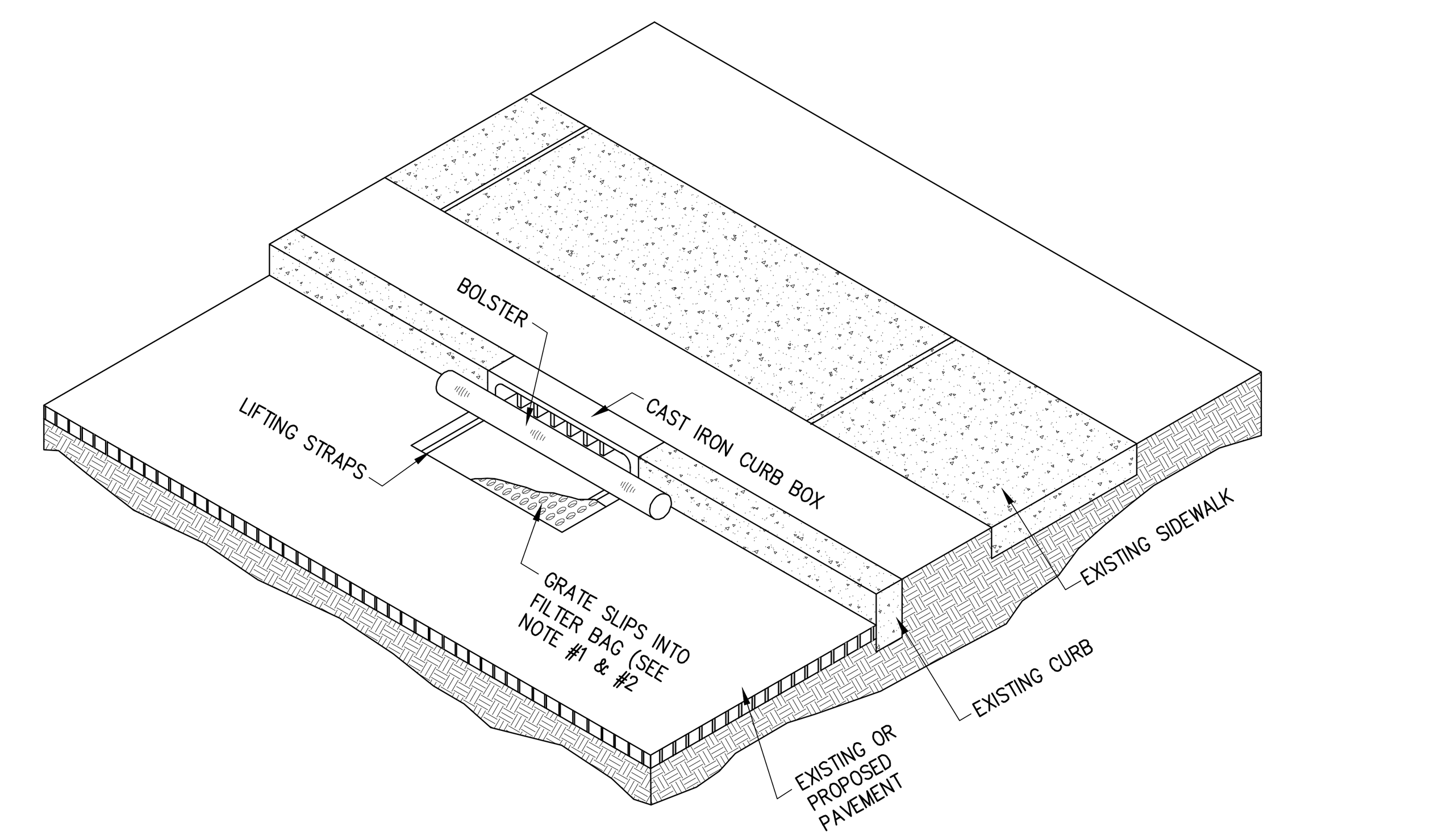
CONSTRUCTION SCHEDULE:

1. OBTAIN APPLICABLE PERMITS.
2. FLAG THE WORK LIMITS AND MARK THE TREES AND BUFFER AREAS FOR PROTECTION.
3. HOLD PRECONSTRUCTION CONFERENCE AT LEAST ONE WEEK PRIOR TO STARTING CONSTRUCTION.
4. INSTALL SILT FENCING ALONG THE PERIMETER OF THE AREAS TO BE GRADED.
5. INSTALL TEMPORARY GRAVEL CONSTRUCTION ENTRANCE/EXIT.
6. COMPLETE SITE CLEARING INCLUDING REMOVAL AND STOCKPILING OF EXISTING TOPSOIL.
7. RE-GRADE SITE TO PROPOSED SUBGRADE ELEVATIONS.
8. INSTALL DRAINAGE STRUCTURES AND STRAW BALE DIKES AROUND DRAINAGE INLETS.
9. CONSTRUCT NEW BUILDING AND PROPOSED UTILITIES.
10. COMPLETE FINAL GRADING FOR SERVICE DRIVE AND PARKING, AND STABILIZE WITH DENSE GRADED AGGREGATE.
11. COMPLETE FINAL GRADING OF LANDSCAPED AREAS AND PERMANENTLY VEGETATE, LANDSCAPE AND MULCH.
12. COMPLETE FINAL PAVEMENT OF PARKING AND DRIVEWAY AREAS.
13. ALL EROSION AND SEDIMENT CONTROL PRACTICES WILL BE INSPECTED WEEKLY AND AFTER RAINFALL EVENTS. NEEDED REPAIRS WILL BE MADE IMMEDIATELY.



TEMPORARY SEDIMENT FILTER BAG FOR DRAINAGE STRUCTURES

NOT TO SCALE



NOTES:

1. MAINTENANCE: WITH A STIFF BRISTLE BROOM, SWEEP SILT AND OTHER DEBRIS OFF SURFACE AFTER EACH EVENT.

2. INSTALLATION:
   a) STAND GRATE ON END
   b) PLACE THE SILT BAG OVER GRATE
   c) FLIP THE GRATE OVER SO THAT THE OPEN END IS UP
   d) PULL UP THE SLACK AND TUCK THE FLAP IN
   e) BE SURE THAT THE END OF THE GRATE IS COMPLETELY COVERED BY THE FLAP OR THE DANDY BAG WILL NOT FIT PROPERLY.
   f) WHILE HOLDING THE HANDLES, CAREFULLY PLACE DANDY BAG WITH THE GRATE INSERTED INTO THE CATCH BASIN FRAME SO THAT THE RED DOT ON THE TOP OF THE DANDY BAG IS VISIBLE

3. PRIOR AND/OR DURING THE COURSE OF CONSTRUCTION, THE CONTRACTOR SHALL COMPLY WITH ALL ADDITIONAL MEASURES DEEMED NECESSARY BY THE ENGINEER AND SHALL BE RESPONSIBLE FOR MAINTAINING ALL EROSION AND SEDIMENT CONTROL DEVICES.

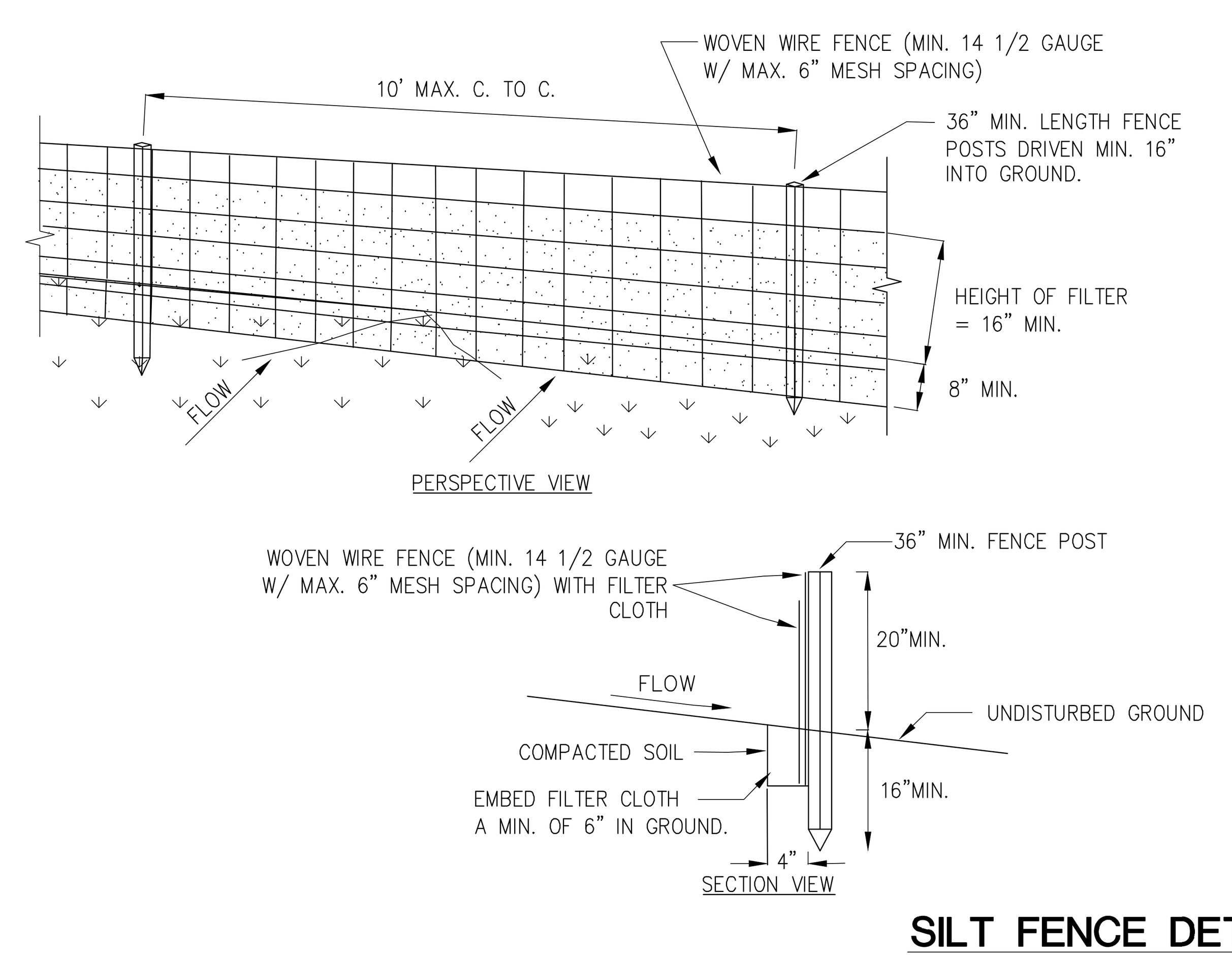
4. ALL DEBRIS OR EXCESS MATERIALS FROM CONSTRUCTION OF THIS PROJECT SHALL BE IMMEDIATELY AND COMPLETELY REMOVED FROM THE PROJECT AREA.

5. ALL INLET SEDIMENT CONTROL DEVICES AT EACH LOCATION SHALL BE INSTALLED PRIOR TO COMMENCING ANY PAVEMENT WORK IN THAT LOCATION OR AS OTHERWISE DIRECTED BY THE ENGINEER. THE CONTRACTOR SHALL MAINTAIN ALL SEDIMENT CONTROLS AND REMOVE COLLECTED SEDIMENT AT LEAST EVERY WEEK. ADDITIONAL MAINTENANCE SHALL BE DONE AS NEEDED. COLLECTED MATERIAL SHALL BE DISPOSED OF PROPERLY TO AN OFF-SITE LOCATION AS DIRECTED BY THE ENGINEER.

6. ALL SEDIMENT CONTROL DEVICES SHALL BE REMOVED FROM THE SITE AFTER CONSTRUCTION IS COMPLETED.

7. MATERIAL SHALL BE DANDY BAG AS MANUFACTURED BY DANDY PRODUCT, INC., P.O. BOX 1980, WESTERVILLE, OHIO 43086; PHONE: 1-800-591-2284 OR APPROVED EQUIVALENT.

8. FILTER BAG SHALL BE REPLACED WHEN IT LOSES ITS ABILITY TO PREVENT SEDIMENT INFILTRATION AS DETERMINED BY THE ENGINEER.



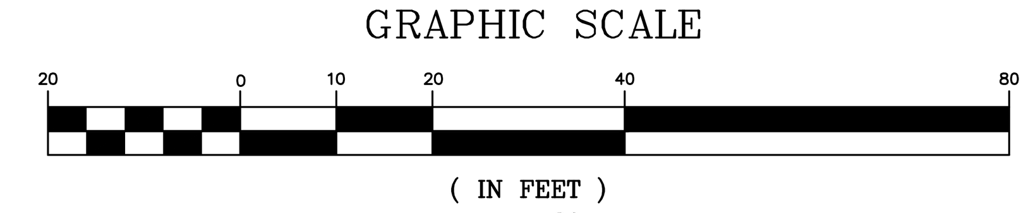
SILT FENCE DETAIL

NOT TO SCALE

CONSTRUCTION SPECIFICATIONS

1. WOVEN WIRE FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES. POSTS SHALL BE STEEL EITHER "T" OR "U" TYPE OR HARDWOOD.
2. FILTER CLOTH TO BE TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24" AT TOP AND MID SECTION. FENCE SHALL BE WOVEN WIRE, 12 1/2 GAUGE, 6" MAXIMUM MESH OPENING.
3. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVER-LAPPED BY SIX INCHES AND FOLDED. FILTER CLOTH SHALL BE EITHER FILTER X, MIRAFI 100X, STABILINKA T140N, OR APPROVED EQUIVALENT.
4. PREFABRICATED UNITS SHALL BE GEOFAB, ENVIROFENCE, OR APPROVED EQUIVALENT.
5. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE.

GRAPHIC SCALE



(IN FEET)
1 inch = 20 ft.

NO.	DATE	REVISION	BY
1.	12-06-2018	SUBMIT FOR SITE PLAN REVIEW	LK

NOTE:
Under N.Y.S. Education Law Sec. 7209 Sub. 2, it is illegal for any person, unless acting under the direction of a LICENSED Professional Engineer, to alter any item on this material in any way. If any item is so altered, the Professional Engineer who so alters or who directs another to so alter, shall affix to the items his seal and the notation "altered by" followed by his signature, the date of the alteration and a specific description of the alteration.

EROSION CONTROL PLAN AND DETAILS

1542 NORTHERN BOULEVARD
MANHASSET, TOWN of NORTH HEMPSTEAD
NASSAU COUNTY, NEW YORK

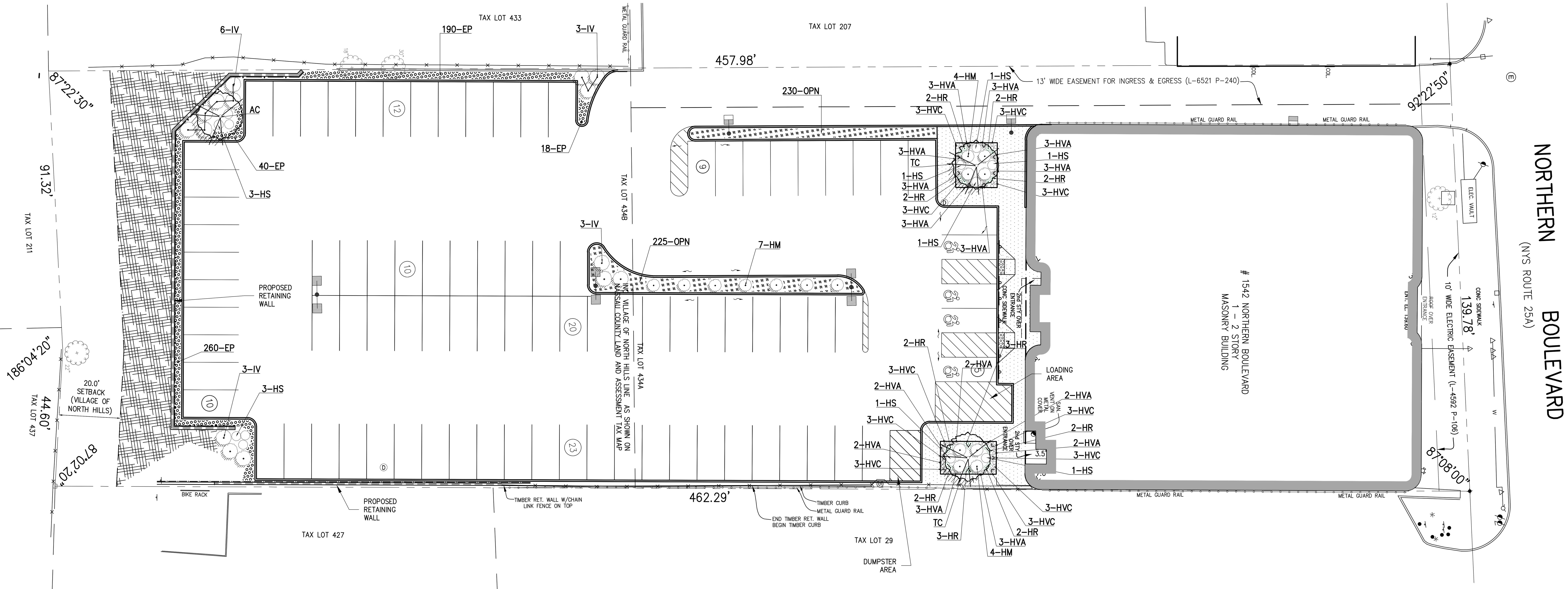
LiRo Engineers, Inc.
A LiRo Group Company
Mineola, N.Y. 516-746-2350[T]

SCALE:
PLAN: 1" = 20'
PROFILE
HORIZ:
VERT:

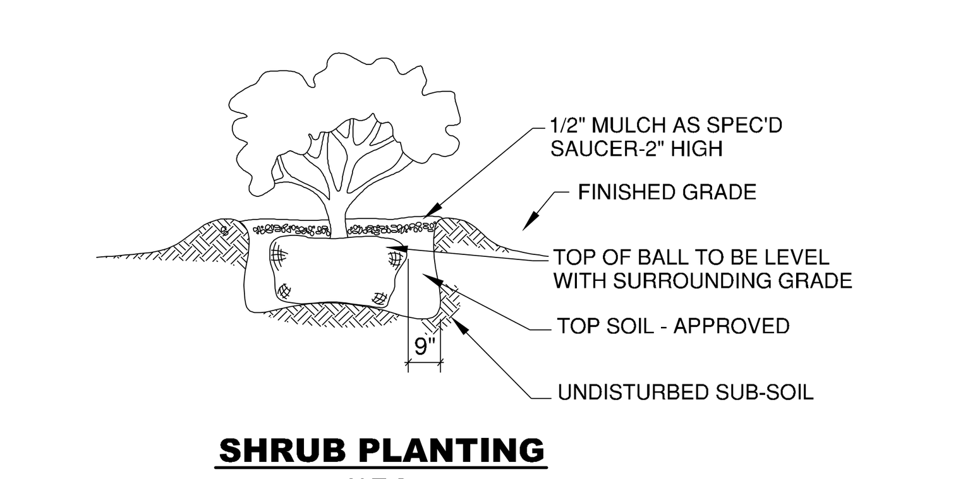
DATE: NOVEMBER, 2018

DESIGNED BY:	DRAFTED BY:	CHECKED BY:	PROJECT NO:	SHEET NUMBER
LK	IK	DK	11538316	EC-1

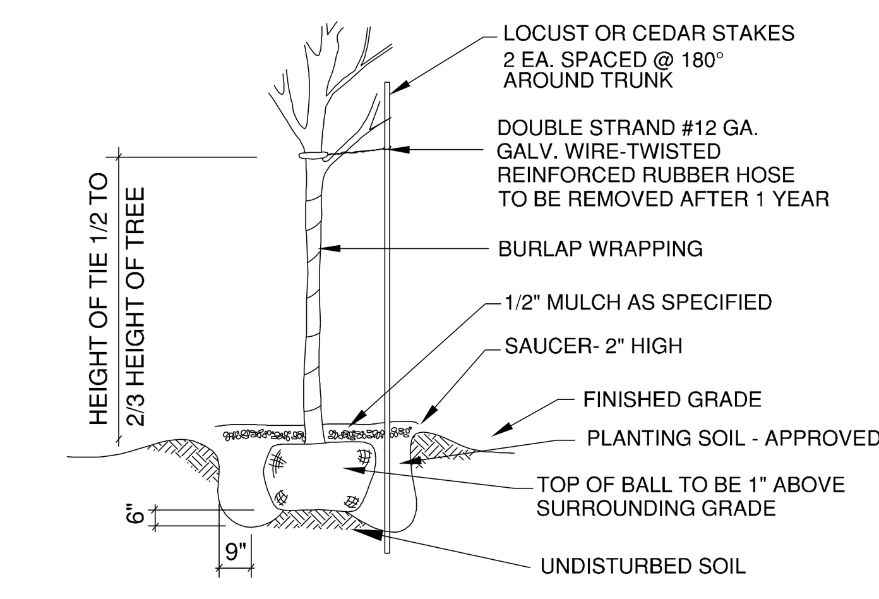
T:\Private Site\115\38316-C&BRealty-1542NorthernBlvd,Manhasset\Civil\Dwg\11538316_SHEET_Parking.dwg(EC-1 Erosion Control Plan & Details) Last Modified: Dec 20, 2018; Plotted by Kurt


TAX LOT 433
TAX LOT 207
TAX LOT 211
TAX LOT 437
TAX LOT 434B
TAX LOT 434A
TAX LOT 427
TAX LOT 29
457.98'
462.29'
87°22'30"
91.32'
186°04'20"
44.60'
87°02'20"
92°22'50"
87°08'00"
139.78'
6-IV
190-EP
3-IV
AC
40-EP
3-HS
18-EP
230-OPN
225-OPN
7-HM
260-EP
4-HM
1-HS
3-HVA
2-HR
3-HVC
TC
3-HR
2-HVA
13' WIDE EASEMENT FOR INGRESS & EGRESS (L-6521 P-240)
PROPOSED RETAINING WALL
20.0' SETBACK (VILLAGE OF NORTH HILLS)
INC. VILLAGE OF NORTH HILLS LINE AS SHOWN ON NASSAU COUNTY LAND AND ASSESSMENT TAX MAP
BIKE RACK
TIMBER RET. WALL W/CHAIN LINK FENCE ON TOP
TIMBER CURB
METAL GUARD RAIL
END TIMBER RET. WALL BEGIN TIMBER CURB
DUMPSTER AREA
LOADING AREA
CONC SIDEWALK
2nd STY OVER ENTRANCE
SAN. VENT ON METAL COVER
1542 NORTHERN BOULEVARD
1 – 2 STORY
MASONRY BUILDING
ELEC. VAULT
ROOF OVER ENTRANCE
10' WIDE ELECTRIC EASEMENT (L-4592 P-106)
NORTHERN BOULEVARD
(NYS ROUTE 25A)

LANDSCAPING PLAN



SHRUB PLANTING
N.T.S.


LOCUST OR CEDAR STAKES 2 EA. SPACED @ 180° AROUND TRUNK
DOUBLE STRAND #12 GA. GALV. WIRE-TWISTED REINFORCED RUBBER HOSE TO BE REMOVED AFTER 1 YEAR
BURLAP WRAPPING
1/2" MULCH AS SPECIFIED
SAUCER- 2" HIGH
FINISHED GRADE
PLANTING SOIL - APPROVED
TOP OF BALL TO BE 1" ABOVE SURROUNDING GRADE
UNDISTURBED SOIL
HEIGHT OF TIE 1/2 TO 2/3 HEIGHT OF TREE
6"
9"

TREE PLANTING AND STAKING
N.T.S.

LEGEND

▨ EPIMEDIUM YOUNGIANMUM 'NIVEUM'

▨ PARTHENOCISSUS QUINQUEFOLIA

▨ OPHIOPOGON PLANISCAPUS 'NIGRESCENS'

NOTES:

1) IRRIGATION TO BE PROVIDED IN LANDSCAPE AREAS

PLANT LIST - TREES

ITEM	KEY	BOTANICAL NAME	COMMON NAME	SIZE	ROOT	SPACING	REMARKS	QUANT.
--	AC	AMELANCHIER GRANDIFLORA 'AUTUMN BRILLIANCE'	AUTUMN BRILLIANCE SERVICEBERRY	1.5" ±	15GAL.	AS SHOWN	SINGLE STRAIGHT TRUNK, FULL SYMMETRICAL CROWN.	1
--	TC	TILIA CORDATA 'GREENSPIRE'	GREENSPIRE LITTLE LEAF LINDEN	2.5"-3"	B&B	AS SHOWN	SINGLE STRAIGHT TRUNK, FULL SYMMETRICAL CROWN.	2

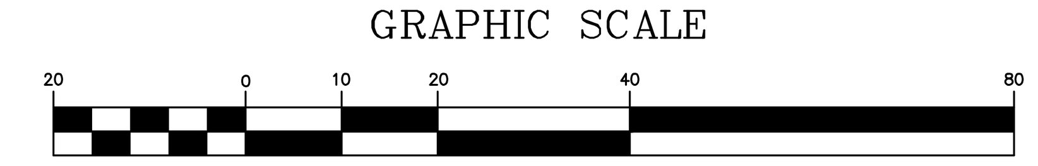
PLANT LIST - SHRUBS

ITEM	KEY	BOTANICAL NAME	COMMON NAME	SIZE	ROOT	SPACING	REMARKS	QUANT.
--	IV	ITEA VIRGINICA 'HENRY'S GARNET'	HENRY'S GARNET	--	3GAL.	AS SHOWN	FULL, SYMMETRICAL, GROWTH TO GRND	15
--	HM	HYDRANGEA MACROPHYLLY 'ENDLESS SUMMER'	ENDLESS SUMMER HYDRANGEA	--	5GAL.	AS SHOWN	FULL, SYMMETRICAL, GROWTH TO GRND	15

PLANT LIST - GROUND COVER / PERENNIAL

ITEM	KEY	BOTANICAL NAME	COMMON NAME	SIZE	ROOT	SPACING	REMARKS	QUANT.
--	EP	EPIMEDIUM YOUNGIANMUM 'NIVEUM'	BISHOP'S HAT BARRENWORT	--	1QT.	12"O.C.	CONTAINER GROWN, MINIMUM 2 YR. GROWTH IN CONTAINER	508
--	HR	HOSTA 'RAZOR'S EDGE'	RAZOR'S EDGE HOSTA	--	2GAL.	AS SHOWN	CONTAINER GROWN, MINIMUM 2 YR. GROWTH IN CONTAINER	--
--	HS	HOSTA SIEBOLDIANA 'ELEGANS'	ELEGANS HOSTA	--	2GAL.	AS SHOWN	CONTAINER GROWN, MINIMUM 2 YR. GROWTH IN CONTAINER	--
--	HVA	HEUCHRA VILLOSA 'AUTUMN BRIDE'	AUTUMN BRIDE CORAL BELLS	--	2GAL.	AS SHOWN	CONTAINER GROWN, MINIMUM 2 YR. GROWTH IN CONTAINER	--
--	HVC	HEUCHRA VILLOSA 'CITRONELLE"	CITRONELLE CORAL BELLS	--	2GAL.	AS SHOWN	CONTAINER GROWN, MINIMUM 2 YR. GROWTH IN CONTAINER	--
--	OPN	OPHIOPOGON PLANISCAPUS 'NIGRESCENS'	BLACK MONDOGRASS	--	1GAL.	12"O.C.	CONTAINER GROWN, MINIMUM 2 YR. GROWTH IN CONTAINER	455
--	PQ	PARTHENOCISSUS QUINQUEFOLIA	VIRGINIA CREEPER	--	2GAL.	24"O.C.	CONTAINER GROWN, MINIMUM 2 YR. GROWTH IN CONTAINER	--

GRAPHIC SCALE



(IN FEET)
1 inch = 20 ft.

NO.	DATE	REVISION	BY
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STATE OF NEW YORK
ROBERT WILLIAM HUTTEMANN
072062
LICENSED PROFESSIONAL ENGINEER
[illegible]

LANDSCAPING PLAN

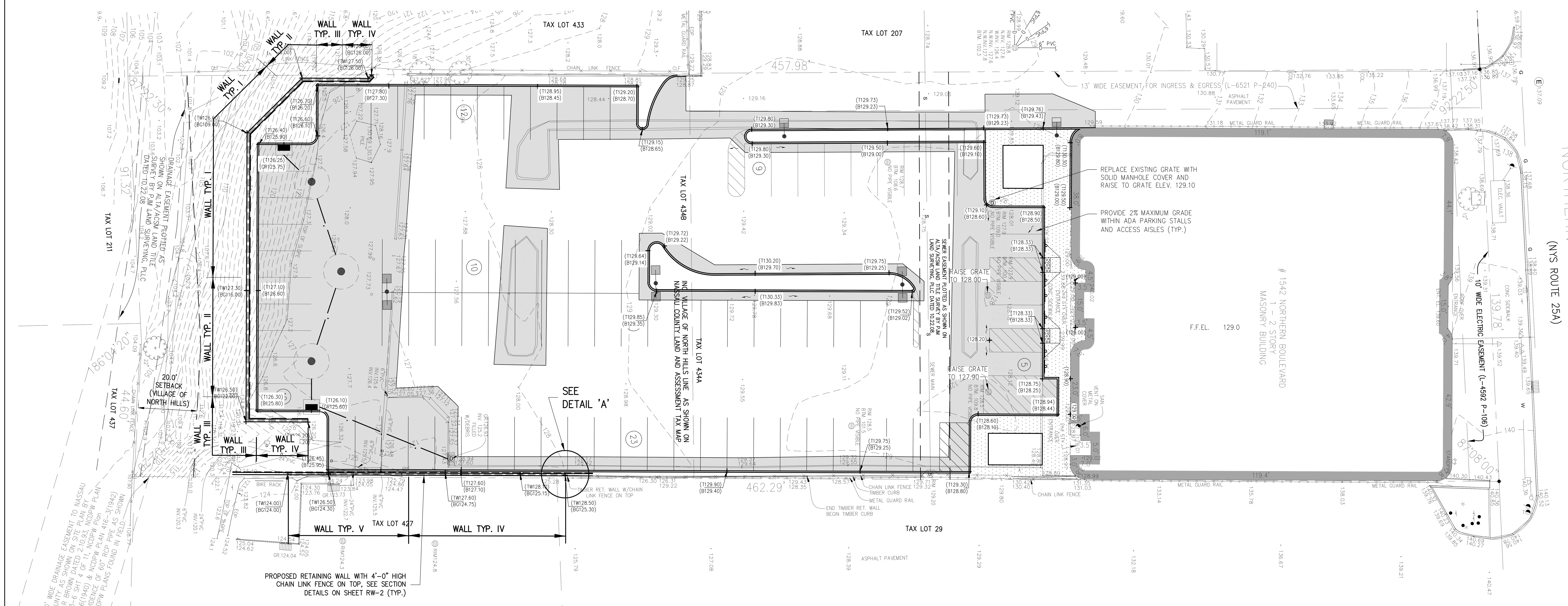
1542 NORTHERN BOULEVARD
MANHASSET, TOWN of NORTH HEMPSTEAD
NASSAU COUNTY, NEW YORK

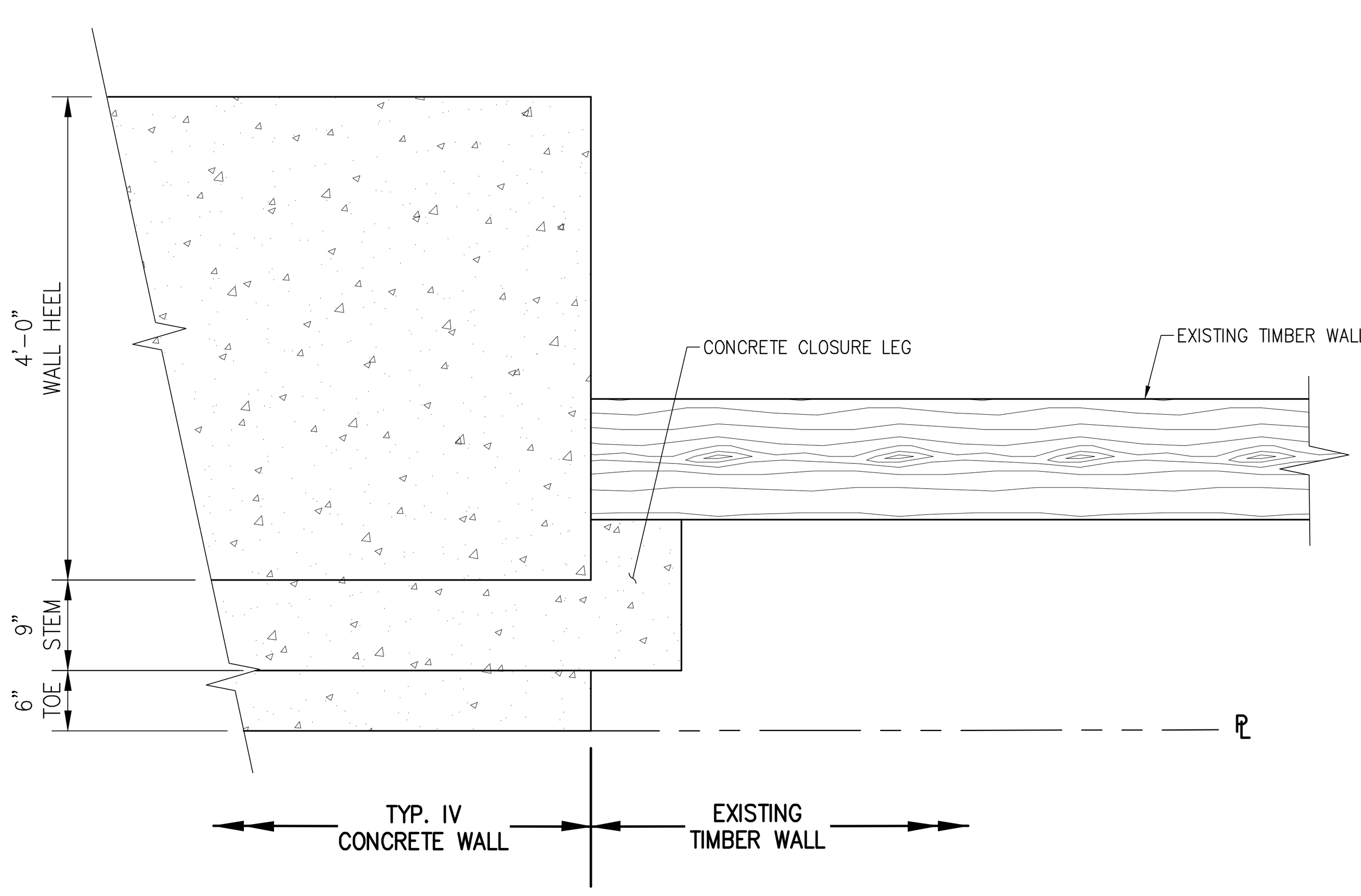
LiRo Engineers, Inc.
A LiRo Group Company
Mineola, N.Y. 516-746-2350[T]

SCALE:
PLAN: 1" = 20'
PROFILE
HORIZ:
VERT:

DATE:
NOVEMBER, 2018

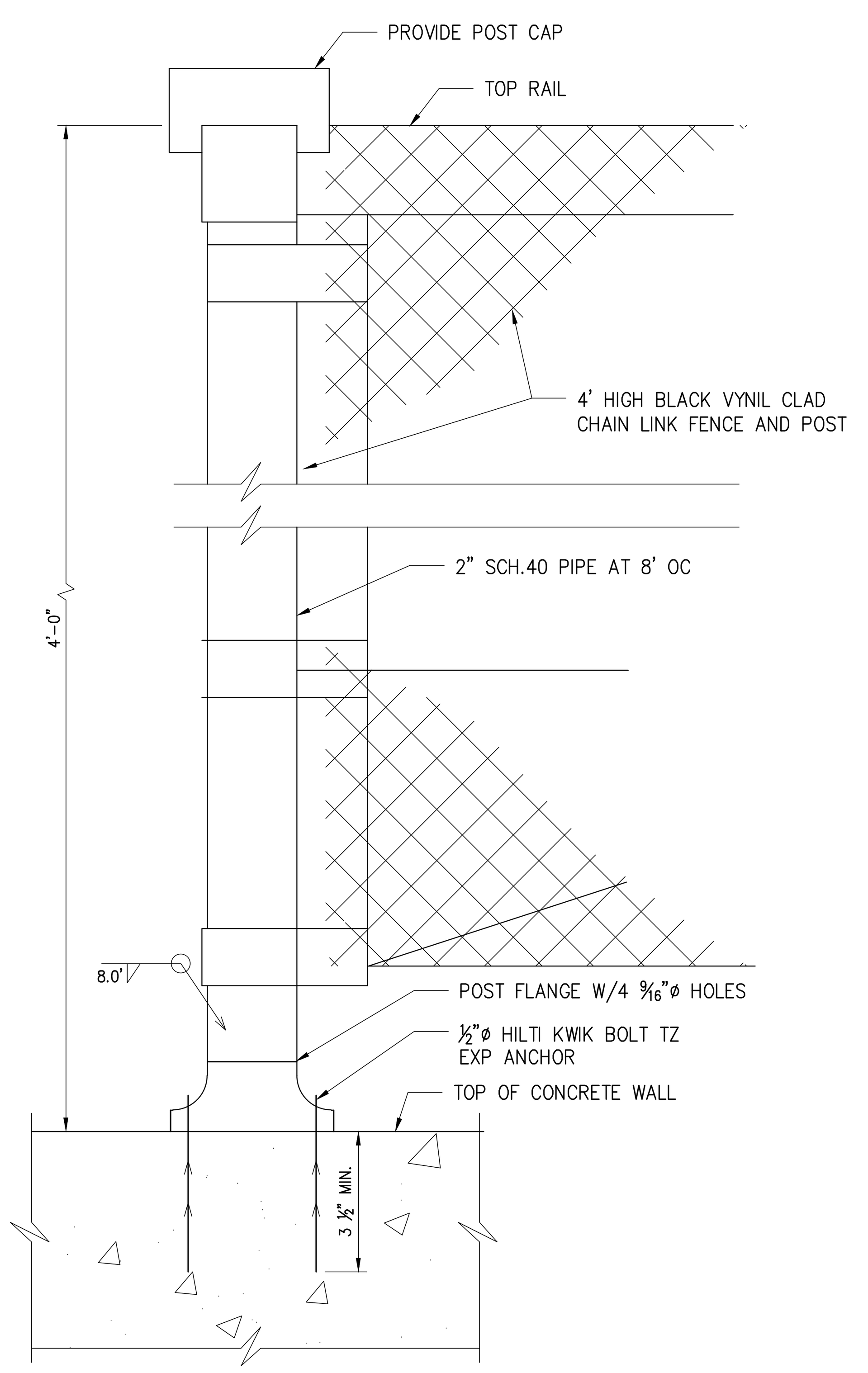
DESIGNED BY:	DRAFTED BY:	CHECKED BY:	PROJECT NO:	SHEET NUMBER
TG	TG	LK	11538316	L-1


TAX LOT 433
TAX LOT 207
TAX LOT 211
TAX LOT 437
TAX LOT 434B
TAX LOT 434A
TAX LOT 427
TAX LOT 29
WALL TYP. I
WALL TYP. II
WALL TYP. III
WALL TYP. IV
WALL TYP. V
20.0' SETBACK (VILLAGE OF NORTH HILLS)
DRAINAGE EASEMENT PLOTTED AS SHOWN ON ALTA/ACSM LAND TITLE SURVEY BY PJM LAND SURVEYING, PLLC DATED 10.22.08
30' WIDE DRAINAGE EASEMENT TO NASSAU COUNTY AS SHOWN ON SITE PLAN BY SEAR BROWN DATED 2.10.93, NCDPW PLAN #443-6 SHT 4 OF 11, NCDPW PLAN 415-6(1940) & NCDPW PLAN 416-3(1942) NO EVIDENCE OF 60" RCP PIPE AS SHOWN ON NCDPW PLANS FOUND IN FIELD.
INC. VILLAGE OF NORTH HILLS LINE AS SHOWN ON NASSAU COUNTY LAND AND ASSESSMENT TAX MAP
SEWER EASEMENT PLOTTED AS SHOWN ON ALTA/ACSM LAND TITLE SURVEY BY PJM LAND SURVEYING, PLLC DATED 10.22.08
SEE DETAIL 'A'
PROPOSED RETAINING WALL WITH 4'-0" HIGH CHAIN LINK FENCE ON TOP, SEE SECTION DETAILS ON SHEET RW-2 (TYP.)
13' WIDE EASEMENT FOR INGRESS & EGRESS (L-6521 P-240)
REPLACE EXISTING GRATE WITH SOLID MANHOLE COVER AND RAISE TO GRATE ELEV. 129.10
PROVIDE 2% MAXIMUM GRADE WITHIN ADA PARKING STALLS AND ACCESS AISLES (TYP.)
RAISE GRATE TO 128.00
RAISE GRATE TO 127.90
1542 NORTHERN BOULEVARD 1 - 2 STORY MASONRY BUILDING
F.F.EL. 129.0
NORTHERN BOULEVARD
(NYS ROUTE 25A)
10' WIDE ELECTRIC EASEMENT (L-4592 P-106)
ELEC. VAULT
CONC SIDEWALK
METAL GUARD RAIL
CHAIN LINK FENCE
TIMBER CURB
END TIMBER RET. WALL BEGIN TIMBER CURB
TIMBER RET. WALL W/CHAIN LINK FENCE ON TOP
ASPHALT PAVEMENT
SEWER MAIN
BIKE RACK
457.98'
462.29'
119.1'
119.4'
139.78'
PLAN



DETAIL 'A'

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



NOTE:

1. ALL STEEL AND HARDWARE GALVANIZED.

FENCE DETAIL

NTS

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

STRUCTURAL GENERAL NOTES AND REQUIREMENTS

A. GENERAL

1. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE BUILDING CODE OF THE STATE OF NEW YORK, LATEST EDITION.
2. THE CONTRACTOR SHALL OBTAIN ANY AND ALL PERMITS REQUIRED FOR THE PERFORMANCE OF THE WORK AND PAY ALL FEES IN CONNECTION THEREOF.
3. CONTRACTOR SHALL REFER TO AND COORDINATE DRAWINGS OF ALL DISCIPLINES AS NEEDED TO PERFORM THE WORK.
4. CONTRACTOR SHALL NOT MAKE DEVIATIONS FROM THE DRAWINGS WITHOUT WRITTEN APPROVAL FROM THE ENGINEER.
5. EXISTING CONDITIONS SHOWN ARE APPROXIMATE AND MAY NOT BE ALL-ENCOMPASSING. ACTUAL FIELD CONDITIONS MAY DIFFER FROM THOSE SHOWN HEREIN. CONTRACTOR SHALL FAMILIARIZE HIMSELF WITH THE SITE AND VERIFY CONDITIONS AND DIMENSIONS AS NEEDED PRIOR TO UNDERTAKING THE WORK. CONFLICTS BETWEEN ACTUAL CONDITIONS AND THOSE SHOWN SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER FOR RESOLUTION.
6. DO NOT SCALE DRAWINGS; WRITTEN DIMENSIONS CONFIRMED BY FIELD MEASUREMENTS TAKE PRECEDENCE. IF A DISCREPANCY ARISES BASED ON FIELD MEASUREMENTS, CONSULT WITH THE ENGINEER BEFORE PROCEEDING WITH THE WORK OR ORDERING MATERIALS.
7. THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR THE SAFETY OF THE PUBLIC, SITE PERSONNEL AND PROPERTY DURING CONSTRUCTION OPERATIONS AND UNTIL COMPLETION OF ALL WORK.
8. CONTRACTOR IS RESPONSIBLE FOR LOCATING AND MAINTAINING OR TEMPORARILY RELOCATING ALL EXISTING UTILITIES. THIS MAY ENTAIL CONTACTING AND OBTAINING INFORMATION, CLEARANCES AND PERMISSIONS FROM UTILITY COMPANIES HAVING JURISDICTION.
9. SITE ACCESS AND STORAGE AREAS SHALL BE AS DIRECTED BY THE OWNER.
10. REMOVE EXCESS CONSTRUCTION MATERIAL AND DEBRIS FROM THE SITE DURING AND AT THE COMPLETION OF THE WORK.
11. ALL DAMAGE RESULTING FROM THE CONTRACTOR'S ACTIVITIES SHALL BE REPAIRED AT NO COST TO THE OWNER.

B. EARTHWORK

1. DEFINITIONS:

   STRUCTURAL FILL: CLEAN SAND OR GRAVEL CONTAINING NO MORE THAN 10% PASSING A No. 200 SIEVE.
2. EXCAVATION IS UNCLASSIFIED AND INCLUDES EXCAVATION TO SUBGRADE REGARDLESS OF MATERIALS ENCOUNTERED. RESTORE EXCAVATIONS BEYOND ELEVATIONS AND DIMENSIONS INDICATED WITH LEAN CONCRETE OR COMPACTED STRUCTURAL FILL.
3. MAINTAIN STABILITY OF EXCAVATIONS; DESIGN, INSTALL AND COORDINATE SHORING AND BRACING AS REQUIRED. PREVENT SURFACE AND SUBSURFACE WATER FROM ACCUMULATING IN EXCAVATIONS. STOCKPILE SATISFACTORY MATERIALS FOR REUSE, ALLOW FOR PROPER DRAINAGE AND DO NOT STOCKPILE MATERIALS WITHIN DRIPLINE OF TREES TO REMAIN.
4. COMPACT MATERIALS AT THE OPTIMUM MOISTURE CONTENT AS DETERMINED BY ASTM D 1557 BY AERATION OR WETTING TO THE FOLLOWING PERCENTAGES OF MAXIMUM DRY DENSITY:

   SUBGRADE AND EACH FILL LAYER TO 95 PERCENT OF MAXIMUM DRY DENSITY.
5. PLACE ACCEPTABLE MATERIALS IN LAYERS NOT MORE THAN 8 INCHES LOOSE DEPTH FOR MATERIALS COMPACTED BY HEAVY EQUIPMENT AND NOT MORE THAN 4 INCHES LOOSE DEPTH FOR MATERIALS COMPACTED BY HAND EQUIPMENT.
6. SOIL SHALL BE ADEQUATE FOR 2 TSF ALLOWABLE SOIL BEARING CAPACITY, AS DETERMINED BY THE ENGINEER.

C. CONCRETE

1. ALL CONCRETE WORK SHALL CONFORM TO BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE AND COMMENTARY, ACI 318, LATEST EDITION.
2. ALL CONCRETE SHALL HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH, fc OF 4000 PSI.
3. REINFORCING STEEL, STIRRUPS AND TIES SHALL CONFORM TO ASTM A-615, GRADE 60.
4. FINE AND COARSE AGGREGATE SHALL CONFORM TO ASTM C-33. THE NOMINAL MAXIMUM SIZE OF COARSE AGGREGATE SHALL NOT BE LARGER THAN ONE-FIFTH OF THE NARROWEST DIMENSION BETWEEN SIDES OF THE FORMS, ONE-THIRD OF THE DEPTH OF SLABS, OR THREE-FOURTHS OF THE MINIMUM CLEAR SPACING BETWEEN REINFORCING BARS.
5. ALL CONCRETE SHALL BE AIR-ENTRAINED. AIR-ENTRAINING ADMIXTURE SHALL CONFORM TO ASTM C-260.
6. MIXING WATER SHALL BE POTABLE. THE MAXIMUM WATER SOLUBLE CHLORIDE ION CONTENT SHALL NOT EXCEED 0.10% BY WEIGHT OF CEMENT.
7. AIR CONTENT SHALL BE AS DETERMINED BY ASTM C-173 OR C-231 AND SHALL BE BASED ON COARSE AGGREGATE SIZE IN ACCORDANCE WITH ACI 318.
8. SLUMP AS DETERMINED IN ACCORDANCE WITH ASTM C-143, MEASURED AT THE POINT OF PLACEMENT INTO THE STRUCTURE;

   1 INCH MINIMUM, 3 INCH MAXIMUM
9. DEPOSIT CONCRETE IN 12 TO 24 INCH DEEP HORIZONTAL LAYERS. CONCRETE SHALL NOT BE ALLOWED TO DROP FREELY MORE THAN 4 FEET.
10. REINFORCING BARS SHALL BE SPLICED A MINIMUM OF 48 BAR DIAMETERS OR 24 INCHES WHICHEVER IS GREATER, UNLESS OTHERWISE NOTED. LAP TOP BARS AT MIDSPAN AND BOTTOM BARS AT SUPPORTS, UNLESS OTHERWISE NOTED.
11. DEVELOPMENT LENGTH, Ld, SHALL BE 36 BAR DIAMETERS OR 18 INCHES, WHICHEVER IS GREATER, UNLESS OTHERWISE NOTED.
12. TAIL LENGTH FOR STANDARD 180 DEGREE HOOKS SHALL BE 4 BAR DIAMETERS, MINIMUM. TAIL LENGTH FOR STANDARD 90 DEGREE HOOKS SHALL BE 12 BAR DIAMETERS, MINIMUM.
13. MINIMUM CONCRETE COVER OF REINFORCING STEEL FOR CAST IN PLACE (NON-PRESTRESSED) CONCRETE SHALL BE AS FOLLOWS.

    CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH: 3 INCHES

    CONCRETE EXPOSED TO EARTH OR WEATHER:

    No. 6 THRU No. 18 BARS: 2 INCHES

    No. 5, W31 OR D31 AND SMALLER: 1-1/2 INCHES

    CONCRETE NOT EXPOSED TO WEATHER OR IN CONTACT WITH THE GROUND:

    SLABS, WALLS, JOISTS: No. 14 AND No. 18: 1-1/2 INCHES

    SLABS, WALLS, JOISTS: No. 11 AND SMALLER: 3/4 INCH

    BEAMS AND COLUMNS: 1-1/2 INCHES
14. ALL EXPOSED CONCRETE EDGES SHALL RECEIVE 3/4 INCH CHAMFER.
15. ALL EXPOSED CONCRETE SURFACES SHALL BE WET CURED OR HAVE A CURING AGENT APPLIED. CURING METHOD TO CONTINUE A MINIMUM OF 7 DAYS.
16. COLD WEATHER CONCRETING SHALL BE IN ACCORDANCE WITH ACI-306. UNLESS THE AMBIENT TEMPERATURE IS 40 DEGREES F AND RISING, WATER, CEMENT AND AGGREGATES SHOULD BE HEATED SO THAT THE CONCRETE TEMPERATURE IS AT LEAST 55 DEGREES F. MAINTAIN THE CONCRETE MOIST AND AT LEAST 50 DEGREES F FOR AT LEAST 7 DAYS.
17. HOT WEATHER CONCRETING SHALL BE IN ACCORDANCE WITH ACI-305. WHEN THE AMBIENT TEMPERATURE IS ABOVE 90 DEGREES F, AGGREGATE, WATER AND CEMENT SHOULD BE KEPT COOL. THE USE OF A SET-RETARDING ADMIXTURE WITH A SHRINKAGE COMPENSATING MIX, MAY BE NECESSARY.
18. PROVIDE HIGH CHAIRS, SPACERS AND SUPPORTS TO HOLD REINFORCING SECURELY IN PLACE WHILE PLACING CONCRETE.
19. CONCRETE WORK SHALL BE ADEQUATELY PROTECTED AGAINST DAMAGE DUE TO EXCESSIVE LOADING, EQUIPMENT, OR WEATHER CONDITIONS.
20. ALL FORMWORK SHALL BE MORTAR TIGHT WITHOUT EXCESSIVE MOVEMENT OR DEFLECTION.
21. ALL CONCRETE SHALL BE CONSOLIDATED BY INTERNAL MECHANICAL VIBRATION IMMEDIATELY AFTER PLACEMENT. VIBRATORS SHALL BE OF A SIZE APPROPRIATE FOR THE WORK, CAPABLE OF TRANSMITTING VIBRATION AT FREQUENCIES GREATER THAN 4,500 IMPULSES PER MINUTE.
22. JOINTS:

    CONTROL JOINTS SHALL BE SPACED AT 10 TO 15 FEET. TERMINATE ONE-HALF OF REINFORCING AT CONTROL JOINTS UNLESS OTHERWISE NOTED. CONTROL JOINTS SHALL BE FORMED OR SAW CUT. PERFORM SAW CUT AS SOON AS PRACTICAL AFTER FINISHING' CONCRETE. FILL CONTROL JOINTS WITH JOINT FILLER.

    PROVIDE CONTRACTION JOINTS AT 30 FEET MAXIMUM.

    PROVIDE EXPANSION JOINTS AT 90 FEET MAXIMUM AND AT COLUMNS, WALLS, MACHINERY BASES, ETC.

    PROVIDE CONSTRUCTION JOINTS WHERE LOCATED ON THE DRAWINGS OR AS REVIEWED AND APPROVED BY THE ENGINEER. CONSTRUCTION JOINTS SHALL UTILIZE EITHER A TONGUE AND GROOVE SHEAR KEY OR A COATED DOWEL.

NO.	DATE	REVISION	BY
1.	12-06-2018	SUBMIT FOR SITE PLAN REVIEW	LK

STATE OF NEW YORK · ROBERT WILLIAM HUTTEMANN · 072062 · LICENSED PROFESSIONAL ENGINEER

[illegible]

RETAINING WALL SITE PLAN

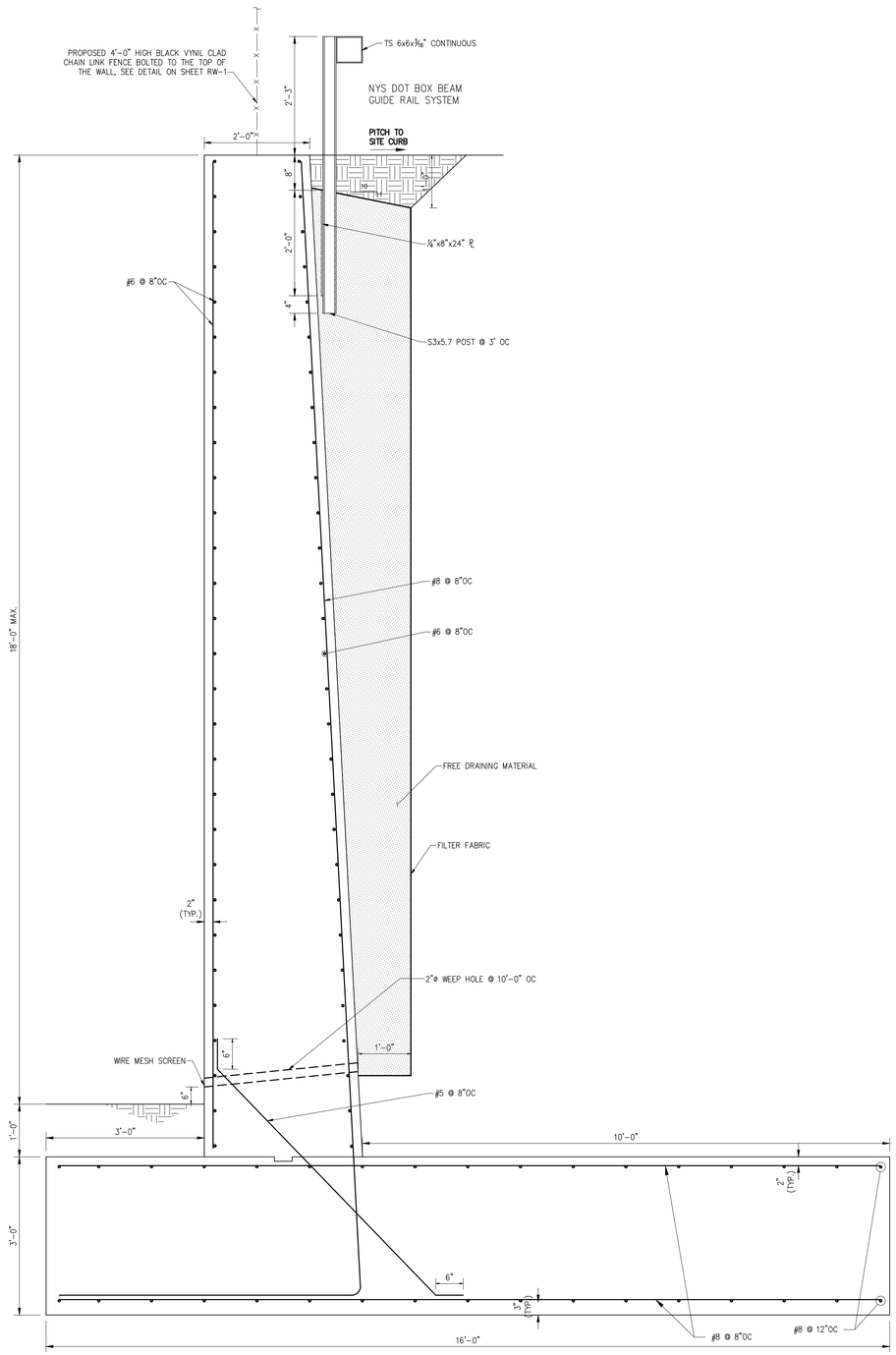
1542 NORTHERN BOULEVARD
MANHASSET, TOWN of NORTH HEMPSTEAD
NASSAU COUNTY, NEW YORK

LiRo Engineers, Inc.
A LiRo Group Company
Mineola, N.Y. 516-746-2350[T]

SCALE:
PLAN: AS SHOWN
PROFILE
HORIZ:
VERT:

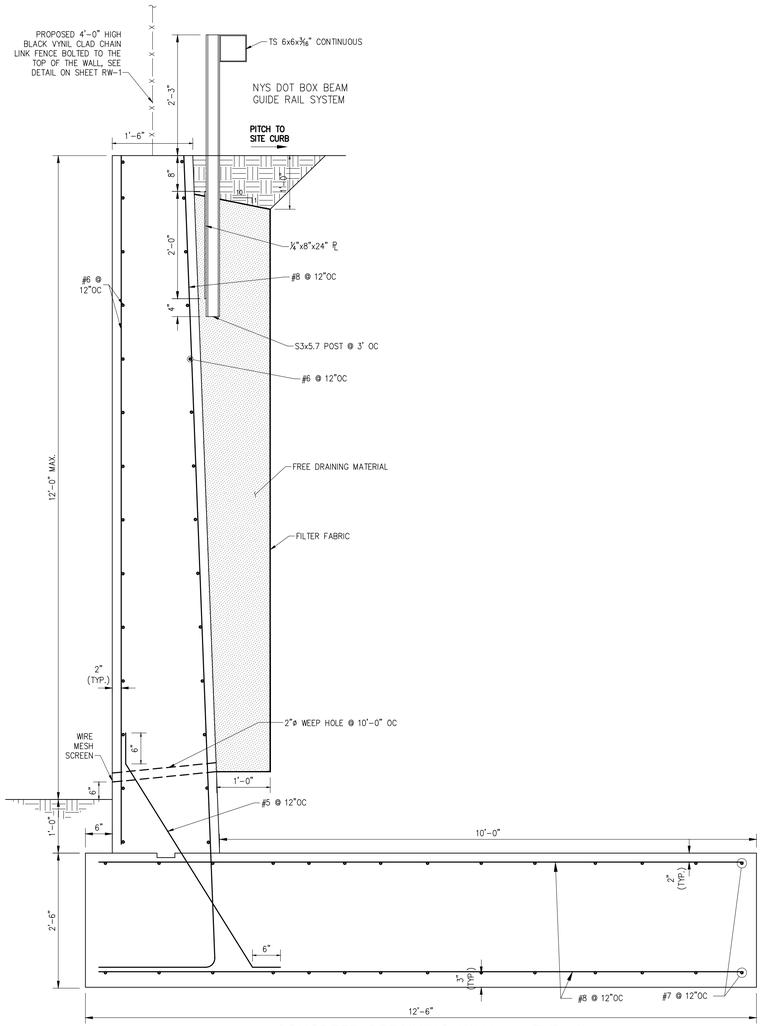
DATE: NOVEMBER, 2018

DESIGNED BY:	DRAFTED BY:	CHECKED BY:	PROJECT NO:	SHEET NUMBER
LK	IK	DK	11538316	RW-1



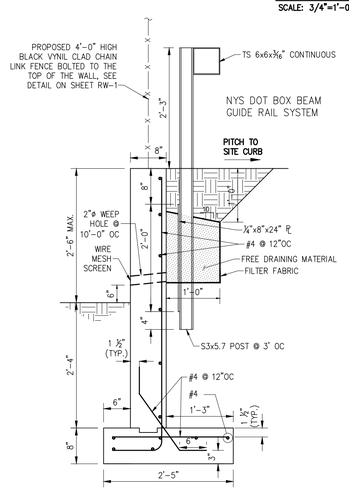
CONCRETE RETAINING WALL – TYP. I

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



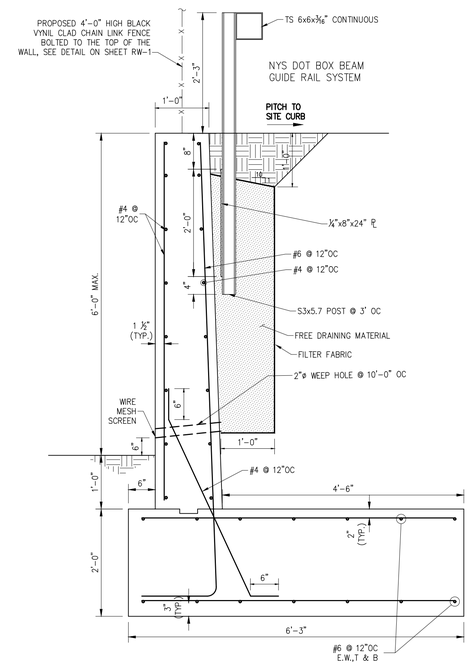
CONCRETE RETAINING WALL – TYP. II

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



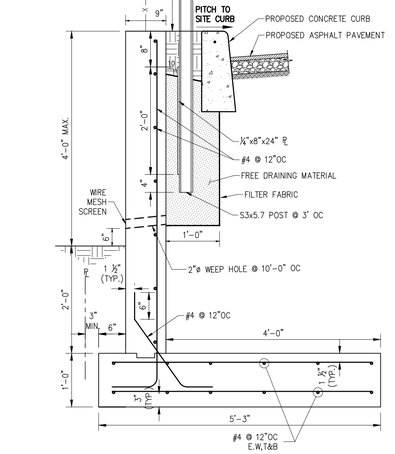
CONCRETE RETAINING WALL – TYP. V

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



CONCRETE RETAINING WALL – TYP. III

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



CONCRETE RETAINING WALL – TYP. IV

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

NOTE:

1. SEE DRAWING RW-1 FOR STRUCTURAL GENERAL NOTES AND REQUIREMENTS.

ASSUMPTIONS:

1. SOIL IS ASSUMED TO BE SAND AND GRAVEL , TO BE VERIFIED BY SOIL BORINGS.
2. VERTICAL SURCHARGE BEHIND WALL IS 200 PSF (LIGHT VEHICULAR TRAFFIC).
3. GROUND WATER ELEVATION IS BELOW OF BOTTOM OF FOOTING. SOIL BEHIND WALL IS FREE-DRAINING. WALL IS NOT DESIGNED FOR WATER PRESSURE.

NO.	DATE	REVISION	BY
1.	12-06-2018	SUBMIT FOR SITE PLAN REVIEW	LK

RETAINING WALL DETAILS

1542 NORTHERN BOULEVARD
MANHASSET, TOWN of NORTH HEMPSTEAD
NASSAU COUNTY, NEW YORK

LiRo Engineers, Inc.
A LiRo Group Company
Mineola, N.Y. 516-746-2350[T]

STATE OF NEW YORK — ROBERT WILLIAM RUTTER — 072062 — LICENSED PROFESSIONAL ENGINEER

SCALE:
PLAN: AS SHOWN
PROFILE
HORIZ:
VERT:

DATE: NOVEMBER, 2018

DESIGNED BY:	DRAFTED BY:	CHECKED BY:	PROJECT NO:	SHEET NUMBER
LK	IK	DK	11538316	RW-2