

SCALE: 1" = 500'±

TOWNSHIP OF WEST ORANGE 200' PROPERTY OWNERS LIST			
BLOCK	LOT	OWNER	OWNER'S ADDRESS
128	7	CARDINALE, JOAN & CARMELA	33 WHITTLESLEY AVENUE WEST ORANGE, NJ 07052
128	9	THE PLAYHOUSE, INC.	264 W. NORTHELD DR. LIVINGSTON, NJ 07039
134	1	KEYSTONE PROPERTIES, LLC	PO BOX 222 MILLBURN, NJ 07041
134	3	ALLEN, DOUGLAS A III	60 NISHUAINE RD. MONTCLAIR, NJ 07042
134	34	OSOUNA, TIFFANY LINGO- & DEVON	10 WHITTLESLEY AVENUE WEST ORANGE, NJ 07052
134	36	OSOUNA, TIFFANY LINGO- & DEVON	10 WHITTLESLEY AVENUE WEST ORANGE, NJ 07052
134	37	JONES, MARCUS & KARINA HOUSTON	14 WHITTLESLEY AVENUE WEST ORANGE, NJ 07052
134	39	SANGOLOU, JOSE R & BERMEO, GLORIA	16 WHITTLESLEY AVENUE WEST ORANGE, NJ 07052
134	41	PIERRE, BELZEBET JEAN-MARCIAL, JEAN	18 WHITTLESLEY AVENUE WEST ORANGE, NJ 07052
134	43	SAINTE, JUDE	20 WHITTLESLEY AVENUE WEST ORANGE, NJ 07052
134	44	MENSAH, OSEI A. & PATTERSON, THERESA	22 WHITTLESLEY AVENUE WEST ORANGE, NJ 07052
134.02	68	NAVAS, CARMEN AMELIA	50 FRANKLIN AVENUE WEST ORANGE, NJ 07052
134.02	72	VEGA, MANUAL	54 FRANKLIN AVENUE WEST ORANGE, NJ 07052
134.02	74	DIDIT AGAIN LLC	16 E. NORTHFIELD AVENUE LIVINGSTON, NJ 07039
134.02	75	DIDIT AGAIN LLC	16 E. NORTHFIELD AVENUE LIVINGSTON, NJ 07039
134.02	82	CHESTNUT ASSETS LLC	32 CRESCENT COURT MORGANVILLE, NJ 07751
134.02	83	CHESTNUT ASSETS LLC	32 CRESCENT COURT MORGANVILLE, NJ 07751
134.02	86	JEREZ, JOSE & ANDREA SALAZAR	57 CHESTNUT STREET WEST ORANGE, NJ 07052
134.02	87	CASTRO, JORGE & ANDREA SALAZAR	55 CHESTNUT STREET WEST ORANGE, NJ 07052
134.02	88	LANTIAGA, BIANCA V & CASTRO, DINA	53 CHESTNUT STREET WEST ORANGE, NJ 07052
134.02	90	CHERON, LOUIS W & LUCIENNE	51 CHESTNUT STREET WEST ORANGE, NJ 07052
134.02	91	LLUGICOTA, LAURA E.	25 WHITTLESLEY AVENUE WEST ORANGE, NJ 07052
134.02	93	CHAVEZ, HUMBERTO & MARIA	23 WHITTLESLEY AVENUE WEST ORANGE, NJ 07052
134.02	95	ROSEN, KENNETH & W. MAUREEN	19 WHITTLESLEY AVENUE WEST ORANGE, NJ 07052
134.02	96	SANTERO, HUGO & ANA	17 WHITTLESLEY AVENUE WEST ORANGE, NJ 07052
134.02	97	TANG, XIHUE & WU, HELEN HAO	15 WHITTLESLEY AVENUE WEST ORANGE, NJ 07052
134.02	98	LIZARAZO, JEAN PAUL & MILAGROS	13 WHITTLESLEY AVENUE WEST ORANGE, NJ 07052
134.02	99	VALDEZ, JULIO & URDAY, ROSALIA	11 WHITTLESLEY AVENUE WEST ORANGE, NJ 07052
134.02	100	PEREZ, MARIA DELUJAN	9 WHITTLESLEY AVENUE WEST ORANGE, NJ 07052
135	27.01	CHASE, SHAVER	89 FRANKLIN AVENUE WEST ORANGE, NJ 07052
137	1	PATEL, RAJULBENATSITBHAI & HARDIK	85 FRANKLIN AVENUE WEST ORANGE, NJ 07052
137	3	MORRISON, KATHLEEN & MICHAEL	69 CHESTNUT STREET WEST ORANGE, NJ 07052
137	4	LOUIS, YANIC	71 CHESTNUT STREET WEST ORANGE, NJ 07052
137	5	CHABLA, CARLOS I	73 CHESTNUT STREET WEST ORANGE, NJ 07052
137	7	PIERRE, PIERRE JACQUE & LUCIANNE	75 CHESTNUT STREET WEST ORANGE, NJ 07052
137	82	BURKE, KENNETH C & JANET M.	88 ORTON ROAD WEST CALDWELL, NJ 07006
137	83	GEORGES, FRANTZ & MARIE KETTY	10 ELM STREET WEST ORANGE, NJ 07052
137	84	MILMOE, DENA	8 ELM STREET WEST ORANGE, NJ 07052
137	85	GROVES, GORDON & FRIEHOFF	4 ELM STREET WEST ORANGE, NJ 07052
137	87	HERNANDEZ, YOVANY	2 ELM STREET WEST ORANGE, NJ 07052
138	1	TOWNSHIP OF WEST ORANGE	66 MAIN STREET WEST ORANGE, NJ 07052
138	2	ALIJI, MUTIWA	1 ELM STREET WEST ORANGE, NJ 07052
138	4	VIGO, ALBERTO	7 ELM STREET WEST ORANGE, NJ 07052
138	6	VERA, JENNIFER & FUNEZ, JUAN CARLOS	9 ELM STREET WEST ORANGE, NJ 07052
138	67	DEPASQUALE, LEONA	10 MAPLE STREET WEST ORANGE, NJ 07052

APPROVED BY THE
TOWNSHIP ZONING BOARD OF ADJUSTMENT
ESSEX COUNTY, NEW JERSEY

CHAIRPERSON DATE

SECRETARY _____ DATE _____

TOWNSHIP ENGINEER DATE



ISSUE	DATE	BY	DESCRIPTION
06	01/27/2023	MAGR	FOR MUNICIPAL RESUBMISSION
05	10/04/2022	MAGR	FOR MUNICIPAL RESUBMISSION
04	09/01/2022	MAGR	FOR MUNICIPAL RESUBMISSION
03	08/04/2022	MAGR	FOR MUNICIPAL RESUBMISSION
02	01/07/2022	NRK	FOR MUNICIPAL RESUBMISSION
01	09/24/2021	MAGR	FOR MUNICIPAL SUBMISSION

NOT APPROVED FOR CONSTRUCTION

STONEFIELD
engineering & design

Rutherford, NJ • New York, NY • Boston, MA
Princeton, NJ • Tampa, FL • Detroit, MI
www.stonefieldeng.com

Headquarters: 92 Park Avenue, Rutherford, NJ 07070
Phone 201.340.4468 · Fax 201.340.4472

PRELIMINARY & FINAL MAJOR SITE PLAN

**M. VEGA INVESTMENTS LLC
PROPOSED BUILDING ADDITION &
SITE IMPROVEMENTS**

**BLOCK 134.02, LOTS 75.03, 79 & 81
66 FRANKLIN AVENUE
TOWNSHIP OF WEST ORANGE
ESSEX COUNTY, NEW JERSEY**


JOSHUA H. KLINE, P.E.
 NEW JERSEY LICENSE No. 54347
 LICENSED PROFESSIONAL ENGINEER

STONEFIELD
engineering & design

SCALE: AS SHOWN	PROJECT ID: RUT-210050
-----------------	------------------------

TITLE:

COVER SHEET

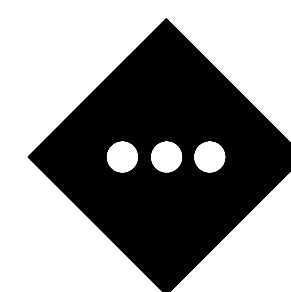
DRAWING:

C-1

SOURCE: GOOGLE EARTH PRO, DATED 10/13/2021

SCALE: 1" = 150'±

PLANS PREPARED BY:



STONEFIELD
engineering & design

Rutherford, NJ • New York, NY • Boston, MA

Princeton, NJ • Tampa, FL • Detroit, MI

www.stonefieldeng.com

Headquarters: 92 Park Avenue, Rutherford, NJ 07070

Phone 201.340.4468 • Fax 201.340.4472

SOURCE: TOWNSHIP OF WEST ORANGE TAX MAPS SHEETS 48, 49, 56, 57, 58 DATED 2011 & TOWN OF MONTCLAIR TAX MAP SHEET 19 DATED 1972 & TOWNSHIP OF WEST ORANGE ZONING MAP DATED 2020

SCALE: 1" = 150'±

B-1 - RETAIL BUSINESS
(TOWNSHIPS OF WEST CRANFORD)

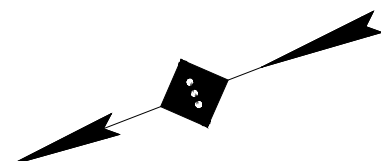
 R-T - TWO FAMILY RESIDENTIAL
(TOWNSHIP OF WEST ORANGE)

 R-1 - ONE-FAMILY
(TOWN OF MONTCLAIR)

SHEET INDEX	
DRAWING TITLE	SHEET #
COVER SHEET	C-1
EXISTING CONDITIONS PLAN	C-2
DEMOLITION PLAN	C-3
SITE PLAN	C-4
GRADING, DRAINAGE, & UTILITY PLAN	C-5
LIGHTING PLAN	C-6
SOIL EROSION & SEDIMENT CONTROL PLAN	C-7
LANDSCAPING PLAN	C-8 - C-9
CONSTRUCTION DETAILS	C-10 - C-12

Afton Savitz

AFTON SAVITZ, P.E.
NEW JERSEY LICENSE No. 57674
LICENSED PROFESSIONAL ENGINEER

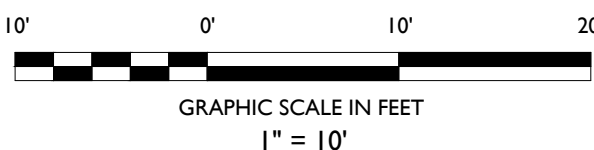


SYMBOL	DESCRIPTION
	BUILDING
	CONCRETE SIDEWALK / MAT
	ASPHALT / CONCRETE CURB
	DEPRESSED CURB
	PROPERTY LINE
	ADJACENT PROPERTY LINE
	CHAIN LINK FENCE
	BOARD-ON-BOARD FENCE
	POLE
	SIGNS
	GAS VALVE
	DRAIN
	INLET
	MAN HOLE
	EDGE OF PAVEMENT
	OVER-HEAD WIRE
	UNDERGROUND GAS LINE
	UNDERGROUND WATER LINE
	UNDERGROUND ELEC LINE
	MAJOR CONTOUR
	MINOR CONTOUR
	GRADE SPOT SHOT
	BOTTOM OF CURB SHOT
	TOP OF WALL SHOT
	BOTTOM OF WALL SHOT
	ELEC METER
	IRON PIN
	BENCH MARK
	DETECTABLE WARNING STRIP

SURVEY NOTES:

I. THE SURVEY LISTED WITHIN THE PLAN REFERENCES ON THE COVER SHEET SHALL BE CONSIDERED A PART OF THIS PLAN SET AND ALL INFORMATION CONTAINED WITHIN THE SURVEY AND ASSOCIATED DOCUMENTS SHALL BE UTILIZED IN CONJUNCTION WITH THIS PLAN SET. THE CONTRACTOR IS RESPONSIBLE TO OBTAIN A COPY OF THE SURVEY AND REVIEW IT THOROUGHLY PRIOR TO THE START OF CONSTRUCTION.

Afton Savitz
AFTON SAVITZ, P.E.
NEW JERSEY LICENSE No. 57674
LICENSED PROFESSIONAL ENGINEER

[illegible]

NOT APPROVED FOR CONSTRUCTION



Rutherford, NJ • New York, NY • Boston, MA
Princeton, NJ • Tampa, FL • Detroit, MI
www.stonefieldeng.com

Headquarters: 92 Park Avenue, Rutherford, NJ 07070
Phone 201.340.4468 • Fax 201.340.4472
www.stonefieldeng.com

PRELIMINARY & FINAL MAJOR SITE PLAN

**M. VEGA INVESTMENTS LLC
PROPOSED BUILDING ADDITION &
SITE IMPROVEMENTS**

**BLOCK 134.02, LOTS 75.03, 79 & 81
66 FRANKLIN AVENUE
TOWNSHIP OF WEST ORANGE
ESSEX COUNTY, NEW JERSEY**



JOSHUA H. KLINE, P.E.
NEW JERSEY LICENSE No. 54347
LICENSED PROFESSIONAL ENGINEER



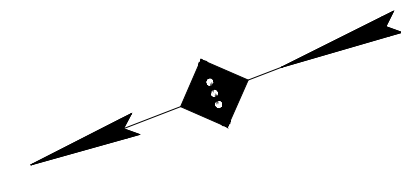
SCALE:	1" = 10'	PROJECT ID: RUT-210050
--------	----------	------------------------

TITLE:

**EXISTING CONDITIONS
PLAN**

DRAWING:

C-2



ALL EXISTING UTILITY CONNECTIONS AND ASSOCIATED DEVICES TO THE SINGLE-STORY BUILDING TO REMAIN AND BE PROTECTED THROUGHOUT CONSTRUCTION

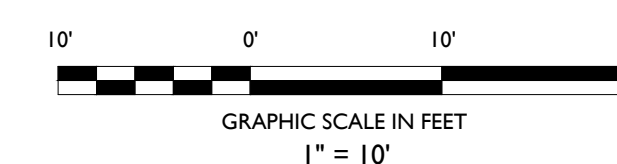
ALL SITE FEATURES WITHIN THE LIMIT OF
DISTURBANCE INDICATED ON THIS PLAN ARE TO
BE REMOVED / DEMOLISHED UNLESS OTHERWISE
NOTED. THE CONTRACTOR SHALL NOTIFY
STONEFIELD ENGINEERING & DESIGN, LLC. IF
SIGNIFICANT DISCREPANCIES ARE DISCERNED
BETWEEN THIS PLAN AND FIELD CONDITIONS



Know what's **below**
Call before you dig.

1. THE WORK REFLECTED ON THE DEMOLITION PLAN IS TO PROVIDE GENERAL INFORMATION TOWARDS THE EXISTING ITEMS TO BE DEMOLISHED AND/OR REMOVED. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING THE UTILITY PLAN SET AND ANY NECESSARY REFERENCE DOCUMENTS PRIOR TO BEGINNING ANY DEMOLITION ACTIVITIES AND INCIDENTAL TASKS NECESSARY TO COMPLETE THE SITE IMPROVEMENTS.
2. THE CONTRACTOR IS RESPONSIBLE TO DETERMINE THE MEANS AND METHODS OF DEMOLITION ACTIVITIES.
3. EXPLOSIVES SHALL NOT BE USED UNLESS WRITTEN CONSENT FROM THE PROJECT OWNER IS OBTAINED. A SUITABLE GOVERNING AGENCY IS OBTAINED. BEFORE THE START OF ANY EXPLOSIVE PROGRAM, THE CONTRACTOR IS RESPONSIBLE TO OBTAIN ALL LOCAL, STATE AND FEDERAL PERMITS. ADDITIONALLY, THE CONTRACTOR WILL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND DAMAGES AS THE RESULT OF SAID DEMOLITION PRACTICES.
4. ALL DEMOLITION ACTIVITIES SHALL BE PERFORMED IN ACCORDANCE WITH ALL LOCAL, STATE AND FEDERAL REQUIREMENTS. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING ALL UTILITIES ARE DISCONNECTED IN ACCORDANCE WITH THE UTILITY AUTHORITY'S REQUIREMENTS PRIOR TO STARTING THE DEMOLITION OF ANY STRUCTURE. ALL REMOVED ITEMS ASSIGNED TO BE REMOVED SHALL BE REMOVED. REMOVED TANKS SHALL BE BACKFILLED WITH SUITABLE MATERIAL AND COMPACTED TO SUPPORT SITE AND BUILDING IMPROVEMENTS.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL NECESSARY TECHNICAL PERSONNEL TO OBSERVE AND CERTIFY THAT BACKFILL MATERIAL WAS COMPACTED TO A SUITABLE CONDITION.
6. DEMOLISHED DEBRIS SHALL NOT BE BURIED ON SITE. ALL DEMOLISHED DEBRIS SHALL BE REMOVED FROM THE SITE AND SHALL BE DISPOSED OF IN ACCORDANCE WITH ALL LOCAL, STATE AND FEDERAL REQUIREMENTS. THE CONTRACTOR IS RESPONSIBLE TO OBTAIN ALL REQUIRED PERMITS AND DOCUMENTATION TO DEMONSTRATE COMPLIANCE WITH THE ABOVE REGULATIONS.

Afton Savitz
AFTON SAVITZ, P.E.
NEW JERSEY LICENSE No. 57674
LICENSED PROFESSIONAL ENGINEER



STONEFIELD
engineering & design

Rutherford, NJ • New York, NY • Boston, MA
Princeton, NJ • Tampa, FL • Detroit, MI
www.stonefieldeng.com

Headquarters: 92 Park Avenue, Rutherford, NJ 07070
Phone 201.340.4468 · Fax 201.340.4472

PRELIMINARY & FINAL MAJOR SITE PLAN

**M. VEGA INVESTMENTS LLC
PROPOSED BUILDING ADDITION &
SITE IMPROVEMENTS**

**BLOCK 134.02, LOTS 75.03, 79 & 81
66 FRANKLIN AVENUE
TOWNSHIP OF WEST ORANGE
ESSEX COUNTY, NEW JERSEY**


JOSHUA H. KLINE, P.E.
 NEW JERSEY LICENSE No. 54347
 LICENSED PROFESSIONAL ENGINEER

SCALE: 1" = 10' PROJECT ID: RUT-210050

TITLE:

DEMOLITION PLAN

DRAWING:

C-3

(V) VARIANCE
(EN) EXISTING NON-CONFORMITY
* BUILDING HEIGHT IS MEASURED FROM THE MEAN GRADE ELEVATION TO THE HIGHEST POINT OF ROOF

CHESTNUT STREET
(50 FT WIDE)

(v) VARIANCE

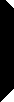
(f) FRACTIONAL SPACES. WHENEVER THE APPLICATION OF PARKING SCHEDULE II RESULTS IN A FRACTIONAL PARKING SPACE IN EXCESS OF ONE-HALF, A FULL SPACE SHALL BE REQUIRED.

(f²) 1 MAKE-READY SPACE SHALL COUNT NO LESS THAN 2 PARKING SPACES FOR PURPOSES OF COMPLYING WITH A MINIMUM PARKING SPACE REQUIREMENT PROVIDED IT DOES NOT REDUCE MORE THAN 10% OF OTHERWISE REQUIRED PARKING SPACES.

DESCRIPTION

GENERAL NOTES

- 10' 0' 10'
- 
- GRAPHIC SCALE IN FEET
1" = 10'



STONEFIELD
engineering & design

Rutherford, NJ • New York, NY • Boston, MA
Princeton, NJ • Tampa, FL • Detroit, MI
www.stonefieldeng.com

Headquarters: 92 Park Avenue, Rutherford, NJ 07070
Phone 201.340.4468 • Fax 201.340.4472

PRELIMINARY & FINAL MAJOR SITE PLAN

**M. VEGA INVESTMENTS LLC
PROPOSED BUILDING ADDITION &
SITE IMPROVEMENTS**

**BLOCK 134.02, LOTS 75.03, 79 & 81
66 FRANKLIN AVENUE
TOWNSHIP OF WEST ORANGE
ESSEX COUNTY, NEW JERSEY**


JOSHUA H. KLINE, P.E.
 NEW JERSEY LICENSE No. 54347
 LICENSED PROFESSIONAL ENGINEER

STONEFIELD
engineering & design

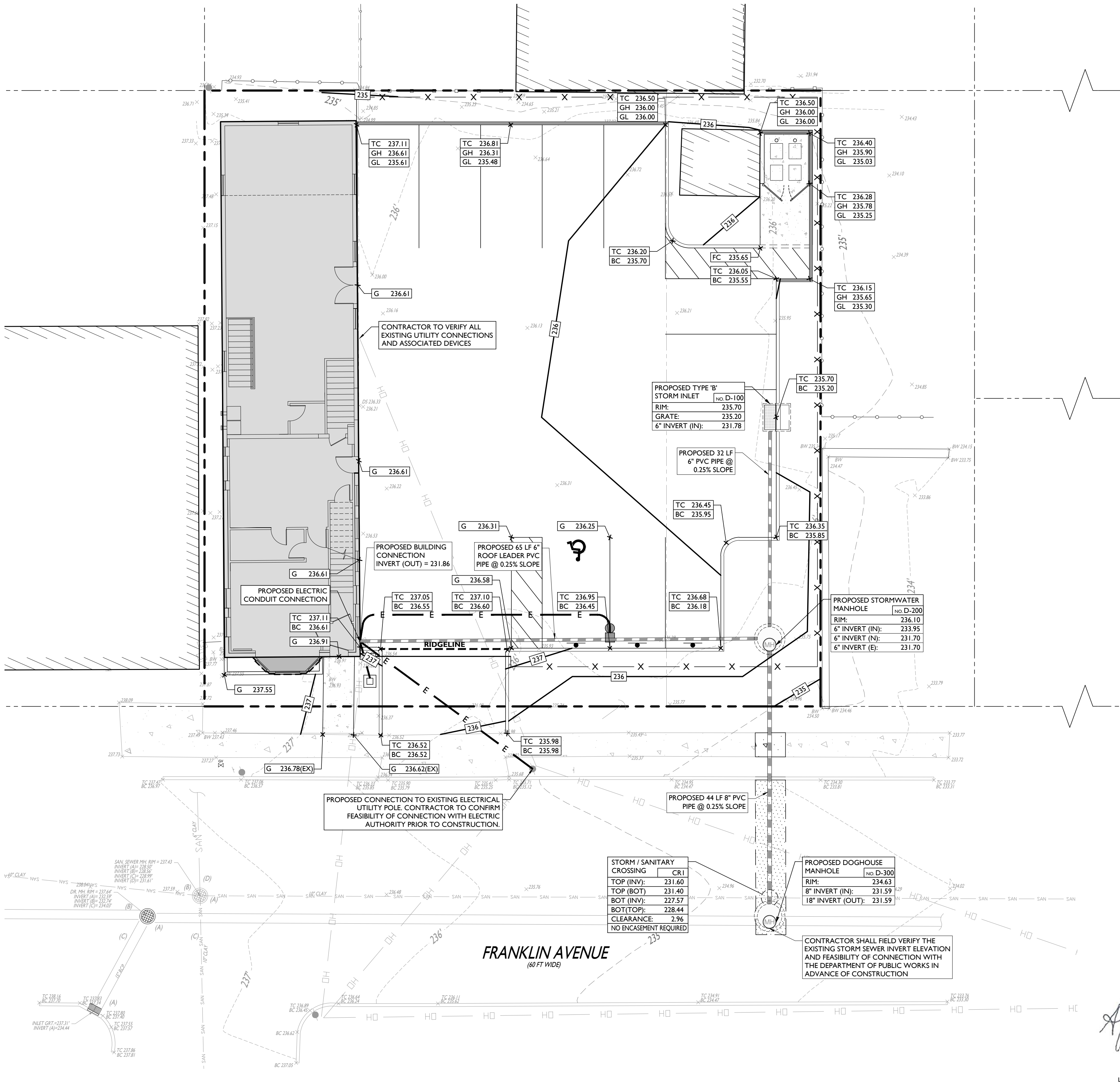
SCALE:	1" = 10'	PROJECT ID: RUT-210050
--------	----------	------------------------

SITE PLAN

DRAWING:

C-4

ALL EXISTING UTILITY CONNECTIONS AND ASSOCIATED DEVICES TO THE SINGLE-STORY BUILDING TO REMAIN AND BE PROTECTED THROUGHOUT CONSTRUCTION. CONTRACTOR SHALL FIELD VERIFY EXISTING STORM SEWER MAIN INVERT AND CONFIRM FEASIBILITY OF CONNECTION WITH THE DEPARTMENT OF PUBLIC WORKS.



DRAINAGE AND UTILITY NOTES

- THE CONTRACTOR TO PERFORM A TEST PIT PRIOR TO CONSTRUCTION (RECOMMEND 30 DAYS PRIOR) AT LOCATIONS OF EXISTING UTILITY CROSSINGS FOR STORMWATER IMPROVEMENTS. SHOULD A CONFLICT EXIST, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY STONEFIELD ENGINEERING & DESIGN, LLC, IN WRITING.
- CONTRACTOR SHALL START CONSTRUCTION OF STORM LINES AT THE LOWEST INVERT AND WORK UP GRADIENT.
- THE CONTRACTOR IS REQUIRED TO CALL THE APPROPRIATE AUTHORITY FOR NOTICE OF CONSTRUCTION/EXCAVATION AND UTILITY MARK OUT PRIOR TO THE START OF CONSTRUCTION IN ACCORDANCE WITH STATE LAW. CONTRACTOR IS REQUIRED TO CONFIRM THE HORIZONTAL AND VERTICAL LOCATION OF UTILITIES IN THE FIELD. SHOULD A DISCREPANCY EXIST BETWEEN THE FIELD LOCATION OF A UTILITY AND THE LOCATION SHOWN ON THE PLAN SET OR SURVEY, THE CONTRACTOR SHALL NOTIFY STONEFIELD ENGINEERING & DESIGN, LLC, IMMEDIATELY IN WRITING.
- THE CONTRACTOR IS RESPONSIBLE TO MAINTAIN A RECORD OF THE AS-BUILT LOCATIONS OF ALL PROPOSED UNDERGROUND INFRASTRUCTURE. THE CONTRACTOR SHALL NOTE ANY DISCREPANCIES BETWEEN THE AS-BUILT LOCATIONS AND THE LOCATIONS DEPICTED WITHIN THE PLAN SET. THIS RECORD SHALL BE PROVIDED TO THE OWNER FOLLOWING COMPLETION OF WORK.

EXCAVATION, SOIL PREPARATION, AND DEWATERING NOTES

- THE CONTRACTOR IS REQUIRED TO REVIEW THE REFERENCED GEOTECHNICAL DOCUMENTS PRIOR TO CONSTRUCTION. THESE DOCUMENTS SHALL BE CONSIDERED A PART OF THE PLAN SET.
- THE CONTRACTOR IS REQUIRED TO PREPARE SUBGRADE SOILS BENEATH ALL PROPOSED IMPROVEMENTS AND BACKFILL ALL EXCAVATIONS IN ACCORDANCE WITH RECOMMENDATIONS BY THE GEOTECHNICAL ENGINEER OF RECORD.
- THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING SHORING FOR ALL EXCAVATIONS AS REQUIRED. CONTRACTOR SHALL HAVE THE SHORING DESIGN PREPARED BY A QUALIFIED PROFESSIONAL SHORING DESIGNER. THE CONTRACTOR SHALL OBTAIN ANY REQUIRED PERMITS FOR DEWATERING OPERATIONS AND GROUNDWATER DISPOSAL.
- THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT ALL OPEN EXCAVATIONS ARE PERFORMED AND PROTECTED IN ACCORDANCE WITH THE LATEST OSHA REGULATIONS.
- THE CONTRACTOR IS RESPONSIBLE FOR ANY DEWATERING DESIGN AND OPERATIONS, AS REQUIRED, TO CONSTRUCT THE PROPOSED IMPROVEMENTS. THE CONTRACTOR SHALL OBTAIN ANY REQUIRED PERMITS FOR DEWATERING OPERATIONS AND GROUNDWATER DISPOSAL.

STORMWATER INFILTRATION BMP CONSTRUCTION NOTES

- PRIOR TO THE START OF CONSTRUCTION, ANY AREA DESIGNATED TO BE USED FOR AN INFILTRATION BMP (E.G. BASIN, BIORETENTION AREA, ETC.) SHALL BE FENCED OFF AND SHALL NOT BE UTILIZED AS STORAGE FOR CONSTRUCTION EQUIPMENT OR AS A STOCKPILE AREA FOR CONSTRUCTION MATERIALS. NO ACTIVITY SHALL BE PERMITTED WITHIN THE INFILTRATION BASIN AREA UNLESS RELATED TO THE CONSTRUCTION OF THE INFILTRATION BASIN. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY ALL SUBCONTRACTORS OF BASIN AREA RESTRICTIONS.
- THE CONTRACTOR SHALL MAKE EVERY EFFORT, WHERE PRACTICAL, TO AVOID SUBGRADE SOIL COMPACTION IN THE AREAS DESIGNATED TO BE USED FOR AN INFILTRATION BMP.
- ALL EXCAVATION WITHIN THE LIMITS OF ANY INFILTRATION BMP SHALL BE PERFORMED WITH THE LIGHTEST PRACTICAL EXCAVATION EQUIPMENT. ALL EXCAVATION EQUIPMENT SHALL BE PLACED OUTSIDE THE LIMITS OF THE BASIN WHERE FEASIBLE. THE USE OF LIGHT-WEIGHT, RUBBER-TIRED EQUIPMENT (LESS THAN 8 PSI APPLIED TO THE GROUND SURFACE) IS RECOMMENDED WITHIN THE BASIN LIMITS.
- THE SEQUENCE OF SITE CONSTRUCTION SHALL BE COORDINATED WITH BASIN CONSTRUCTION TO ADHERE TO SEQUENCING LIMITATIONS.
- DURING THE FINAL GRADING OF AN INFILTRATION BASIN, THE BOTTOM OF THE BASIN SHALL BE DEEPLY TILLED WITH A ROTARY TILLER OR DISC HARROW AND THEN SMOOTHED OUT WITH A LEVELING DRAW OR EQUIVALENT GRADING EQUIPMENT. ALL GRADING EQUIPMENT SHALL BE LOCATED OUTSIDE OF THE BASIN BOTTOM WHERE FEASIBLE.
- FOLLOWING CONSTRUCTION OF AN INFILTRATION BASIN, SOIL INFILTRATION TESTING BY A LICENSED GEOTECHNICAL ENGINEER IS REQUIRED TO CERTIFY COMPLIANCE WITH THE DESIGN INFILTRATION RATES IN ACCORDANCE WITH APPENDIX E OF THE NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION'S BEST MANAGEMENT PRACTICES MANUAL, LATEST EDITION. IF THE FIELD INFILTRATION RATES ARE LOWER THAN THE RATE USED DURING DESIGN, THE CONTRACTOR SHALL NOTIFY STONEFIELD ENGINEERING & DESIGN, LLC, IN WRITING IMMEDIATELY TO DETERMINE THE APPROPRIATE COURSE OF ACTION.
- THE CONTRACTOR SHALL NOTIFY THE MUNICIPALITY TO DETERMINE IF WITNESS TESTING IS REQUIRED DURING INFILTRATION BASIN EXCAVATION AND/OR SOIL INFILTRATION TESTING.

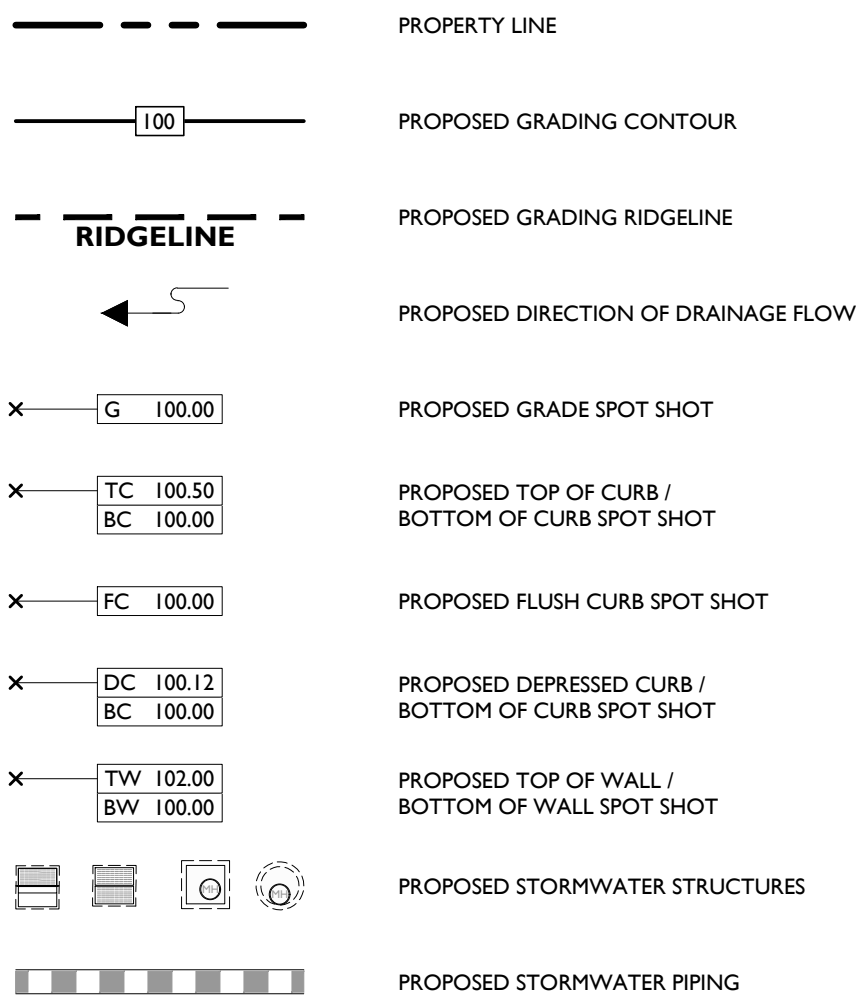
STORMWATER UNDERGROUND BMP CONSTRUCTION NOTES

- THE CONTRACTOR SHALL INSTALL AND BACKFILL THE UNDERGROUND BMP IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.
- UNDERGROUND BASINS SHALL UTILIZE A STONE BACKFILL WITH A MINIMUM VOID RATIO OF 40%.
- NO CONSTRUCTION LOADING OVER UNDERGROUND BASINS IS PERMITTED UNTIL BACKFILL IS COMPLETE PER THE MANUFACTURER'S SPECIFICATIONS. NO VEHICLES SHALL BE STAGED OR OPERATE FROM A FIXED POSITION OVER THE BASIN.

DRAINAGE AND UTILITY NOTES

- THE CONTRACTOR IS REQUIRED TO CALL THE APPROPRIATE AUTHORITY FOR NOTICE OF CONSTRUCTION/EXCAVATION AND UTILITY MARK OUT PRIOR TO THE START OF CONSTRUCTION IN ACCORDANCE WITH STATE LAW. CONTRACTOR IS REQUIRED TO CONFIRM THE HORIZONTAL AND VERTICAL LOCATION OF UTILITIES IN THE FIELD. SHOULD A DISCREPANCY EXIST BETWEEN THE FIELD LOCATION OF A UTILITY AND THE LOCATION SHOWN ON THE PLAN SET OR SURVEY, THE CONTRACTOR SHALL NOTIFY STONEFIELD ENGINEERING & DESIGN, LLC, IMMEDIATELY IN WRITING.
- THE CONTRACTOR IS RESPONSIBLE TO PROTECT AND MAINTAIN IN OPERATION ALL UTILITIES NOT DESIGNATED TO BE REMOVED.
- THE CONTRACTOR IS RESPONSIBLE FOR REPAIRING ANY DAMAGE TO ANY EXISTING UTILITY IDENTIFIED TO REMAIN WITHIN THE LIMITS OF THE PROPOSED WORK DURING CONSTRUCTION.
- A MINIMUM HORIZONTAL SEPARATION OF 10 FEET IS REQUIRED BETWEEN ANY SANITARY SEWER SERVICE AND ANY WATER LINES. IF THIS SEPARATION CANNOT BE PROVIDED, A CONCRETE ENCASMENT SHALL BE UTILIZED FOR THE SANITARY SEWER SERVICE AS APPROVED BY STONEFIELD ENGINEERING & DESIGN, LLC.
- ALL WATER LINES SHALL BE VERTICALLY SEPARATED ABOVE SANITARY SEWER LINES BY A MINIMUM DISTANCE OF 18 INCHES. IF THIS SEPARATION CANNOT BE PROVIDED, A CONCRETE ENCASMENT SHALL BE UTILIZED FOR THE SANITARY SEWER SERVICE AS APPROVED BY STONEFIELD ENGINEERING & DESIGN, LLC.
- THE CONTRACTOR TO PERFORM A TEST PIT PRIOR TO CONSTRUCTION (RECOMMEND 30 DAYS PRIOR) AT LOCATIONS OF EXISTING UTILITY CROSSINGS FOR WATER AND SANITARY SEWER CONNECTION IMPROVEMENTS. SHOULD A CONFLICT EXIST, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY STONEFIELD ENGINEERING & DESIGN, LLC, IN WRITING.
- THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING GAS, ELECTRIC AND TELECOMMUNICATION CONNECTIONS WITH THE APPROPRIATE GOVERNING AUTHORITY.
- CONTRACTOR SHALL START CONSTRUCTION OF ANY GRAVITY SEWER AT THE LOWEST INVERT AND WORK UP GRADIENT.
- THE CONTRACTOR IS RESPONSIBLE TO MAINTAIN A RECORD SET OF PLANS REFLECTING THE LOCATION OF EXISTING UTILITIES THAT HAVE BEEN CAPPED, ABANDONED, OR RELOCATED BASED ON THE DEMOLITION/REMOVAL ACTIVITIES REQUIRED IN THIS PLAN SET. THIS DOCUMENT SHALL BE PROVIDED TO THE OWNER FOLLOWING COMPLETION OF WORK.
- THE CONTRACTOR IS RESPONSIBLE TO MAINTAIN A RECORD OF THE AS-BUILT LOCATIONS OF ALL PROPOSED UNDERGROUND INFRASTRUCTURE. THE CONTRACTOR SHALL NOTE ANY DISCREPANCIES BETWEEN THE AS-BUILT LOCATIONS AND THE LOCATIONS DEPICTED WITHIN THE PLAN SET. THIS RECORD SHALL BE PROVIDED TO THE OWNER FOLLOWING COMPLETION OF WORK.

SYMBOL

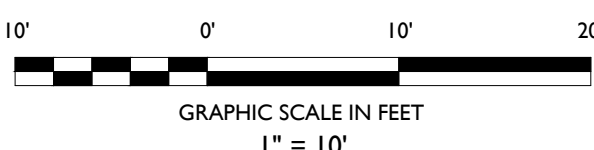


GRADING NOTES

- ALL SOIL AND MATERIAL REMOVED FROM THE SITE SHALL BE DISPOSED OF IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL REQUIREMENTS. ANY GROUNDWATER DEWATERING PRACTICES SHALL BE PERFORMED UNDER THE SUPERVISION OF A QUALIFIED PROFESSIONAL. THE CONTRACTOR IS REQUIRED TO OBTAIN ALL NECESSARY PERMITS FOR THE DISCHARGE OF DEWATERED GROUNDWATER. ALL SOIL IMPORTED TO THE SITE SHALL BE CERTIFIED CLEAN FILL. CONTRACTOR SHALL MAINTAIN RECORDS OF ALL FILL MATERIALS BROUGHT TO THE SITE.
- THE CONTRACTOR IS REQUIRED TO PROVIDE TEMPORARY AND/OR PERMANENT SHORING WHERE REQUIRED DURING EXCAVATION ACTIVITIES, INCLUDING BUT NOT LIMITED TO UTILITY TRENCHES, TO ENSURE THE STRUCTURAL INTEGRITY OF NEARBY STRUCTURES AND STABILITY OF THE SURROUNDING SOILS.
- PROPOSED TOP OF CURB ELEVATIONS ARE GENERALLY 4 INCHES TO 7 INCHES ABOVE EXISTING GRADES UNLESS OTHERWISE NOTED. THE CONTRACTOR WILL SUPPLY ALL STAKEOUT CURB GRADE SHEETS TO STONEFIELD ENGINEERING & DESIGN, LLC, FOR REVIEW AND APPROVAL PRIOR TO POURING CURBS.
- THE CONTRACTOR IS RESPONSIBLE TO SET ALL PROPOSED UTILITY COVERS AND RESET ALL EXISTING UTILITY COVERS WITHIN THE PROJECT LIMITS TO PROPOSED GRADE IN ACCORDANCE WITH ANY APPLICABLE MUNICIPAL, COUNTY, STATE AND/OR UTILITY AUTHORITY REGULATIONS.
- MINIMUM SLOPE REQUIREMENTS TO PREVENT PONDING SHALL BE AS FOLLOWS:
 - CURB GUTTER: 0.50%
 - CONCRETE SURFACES: 1.00%
 - ASPHALT SURFACES: 1.00%
- A MINIMUM SLOPE OF 1.00% SHALL BE PROVIDED AWAY FROM ALL BUILDINGS. THE CONTRACTOR SHALL ENSURE POSITIVE DRAINAGE FROM THE BUILDING IS ACHIEVED AND SHALL NOTIFY STONEFIELD ENGINEERING & DESIGN, LLC, IN WRITING IF POSITIVE DRAINAGE CANNOT BE MET.
- FOR PROJECTS WHERE BASEMENTS ARE PROPOSED, THE DEVELOPER IS RESPONSIBLE TO DETERMINE THE DEPTH TO GROUNDWATER AT THE LOCATION OF THE PROPOSED STRUCTURE. IF GROUNDWATER IS ENCOUNTERED WITHIN THE BASEMENT AREA, SPECIAL CONSTRUCTION METHODS SHALL BE UTILIZED AND REVIEWED/APPROVED BY THE CONSTRUCTION CODE OFFICIAL. IF PUMP PUMPS ARE UTILIZED, ALL DISCHARGES SHALL BE CONNECTED DIRECTLY TO THE PUBLIC STORM SEWER SYSTEM WITH APPROVAL FROM THE GOVERNING STORM SEWER SYSTEM AUTHORITY.

ADA NOTES

- THE CONTRACTOR SHALL MAINTAIN A MAXIMUM 2.00% SLOPE IN ANY DIRECTION WITHIN THE ADA PARKING SPACES AND ACCESS AISLES.
- THE CONTRACTOR SHALL PROVIDE COMPLIANT SIGNAGE AT ALL ADA PARKING AREAS IN ACCORDANCE WITH STATE GUIDELINES.
- THE CONTRACTOR SHALL MAINTAIN A MAXIMUM 5.00% RUNNING SLOPE AND A MAXIMUM OF 2.00% CROSS SLOPE ALONG WALKWAYS WITHIN THE ACCESSIBLE PATH OF TRAVEL (SEE THE SITE PLAN FOR THE LOCATION OF THE ACCESSIBLE PATH). THE CONTRACTOR IS RESPONSIBLE TO ENSURE THE ACCESSIBLE PATH OF TRAVEL IS 36 INCHES WIDE OR GREATER UNLESS INDICATED OTHERWISE WITHIN THE PLAN SET.
- THE CONTRACTOR SHALL MAINTAIN A MAXIMUM 2.00% SLOPE IN ANY DIRECTION AT ALL LANDINGS, LANDINGS INCLUDE, BUT ARE NOT LIMITED TO, THE TOP AND BOTTOM OF AN ACCESSIBLE RAMP. AT ACCESSIBLE BUILDING ENTRANCES AT AN AREA IN FRONT OF A WALK-UP ATM, AND AT TURNING SPACES ALONG THE ACCESSIBLE PATH OF TRAVEL, THE LANDING AREA SHALL HAVE A MINIMUM CLEAR AREA OF 60 INCHES BY 60 INCHES UNLESS INDICATED OTHERWISE WITHIN THE PLAN SET.
- THE CONTRACTOR SHALL MAINTAIN A MAXIMUM 8.33% RUNNING SLOPE AND A MAXIMUM 2.00% CROSS SLOPE ON ANY CURB RAMPS ALONG THE ACCESSIBLE PATH OF TRAVEL. WHERE PROVIDED, CURB RAMP FLARES SHALL NOT HAVE A SLOPE GREATER THAN 10.00%. IF A LANDING AREA IS PROVIDED AT THE TOP OF THE RAMP, FOR ALTERATIONS, A CURB RAMP FLARE SHALL NOT HAVE A SLOPE GREATER THAN 8.33% IF A LANDING AREA IS NOT PROVIDED AT THE TOP OF THE RAMP. CURB RAMPS SHALL NOT RISE MORE THAN 6 INCHES IN ELEVATION WITHOUT A HANDRAIL. THE CLEAR WIDTH OF A CURB RAMP SHALL BE NO LESS THAN 36 INCHES WIDE.
- ACCESSIBLE RAMPS WITH A RISE GREATER THAN 6 INCHES SHALL CONTAIN COMPLIANT HANDRAILS ON BOTH SIDES OF THE RAMP AND SHALL NOT RISE MORE THAN 30" IN ELEVATION WITHOUT A LANDING AREA IN BETWEEN RAMP RUNS. LANDING AREAS SHALL ALSO BE PROVIDED AT THE TOP AND BOTTOM OF THE RAMP.
- A SLIP RESISTANT SURFACE SHALL BE CONSTRUCTED ALONG THE ACCESSIBLE PATH AND WITHIN ADA PARKING AREAS.
- THE CONTRACTOR SHALL ENSURE A MAXIMUM OF 1/4 INCHES VERTICAL CHANGE IN LEVEL ALONG THE ACCESSIBLE PATH, WHERE A CHANGE IN LEVEL BETWEEN 1/4 INCHES AND 1/2 INCHES EXISTS, CONTRACTOR SHALL ENSURE THAT THE TOP 1/4 INCH CHANGE IN LEVEL IS BEVELED WITH A SLOPE NOT STEEPER THAN 1 UNIT VERTICAL AND 2 UNITS HORIZONTAL (2:1 SLOPE).
- THE CONTRACTOR SHALL ENSURE THAT ANY OPENINGS (GAPS OR HORIZONTAL SEPARATION) ALONG THE ACCESSIBLE PATH SHALL NOT ALLOW PASSAGE OF A SPHERE GREATER THAN 1/4 INCH.



STONEFIELD
engineering & design

PRELIMINARY & FINAL MAJOR SITE PLAN
M. VEGA INVESTMENTS LLC
PROPOSED BUILDING ADDITION &
SITE IMPROVEMENTS

JOSHUA H. KLINE, P.E.
NEW JERSEY LICENSE No. 54547
LICENSED PROFESSIONAL ENGINEER

STONEFIELD
engineering & design

SCALE: 1" = 10' PROJECT ID: RUT-210050

TITLE:
GRADING, DRAINAGE, &
UTILITY PLAN

DRAWING:

C-5

STABILIZATION SPECIFICATIONS:

- I.A. TEMPORARY SEEDING AND MULCHING:
GROUND LIMESTONE - APPLIED UNIFORMLY ACCORDING TO SOIL TEST RECOMMENDATIONS.
FERTILIZER - APPLY 1 LBS./1,000 SF OF 10-20-10 OR EQUIVALENT WITH 50% WATER INSOLUBLE NITROGEN (UNLESS A SOIL TEST INDICATES OTHERWISE) WORKED INTO THE SOIL A MINIMUM OF 4".
SEED - PERENNIAL RYEGRASS 100 LBS./ACRE (2.3 LBS./1,000 SF) OR OTHER APPROVED SEEDS; PLANT BETWEEN MARCH 1 AND MAY 15 OR BETWEEN AUGUST 15 AND OCTOBER 1.
MULCH - UNROTTED STRAW OR HAY AT A RATE OF 70 TO 90 LBS./1,000 SF APPLIED TO ACHIEVE 95% SOIL SURFACE COVERAGE. MULCH SHALL BE ANCHORED BY APPROVED METHODS (I.E. PEG AND TWINE, MULCH NETTING, OR LIQUID MULCH BINDER).
- I.B. PERMANENT SEEDING AND MULCHING:
TOPSOIL - UNIFORM APPLICATION TO A DEPTH OF 5" (UNSETTLED).
GROUND LIMESTONE - APPLIED UNIFORMLY ACCORDING TO SOIL TEST RECOMMENDATIONS.
FERTILIZER - APPLY 1 LBS./1,000 SF OF 10-10-10 OR EQUIVALENT WITH 50% WATER INSOLUBLE NITROGEN (UNLESS A SOIL TEST INDICATES OTHERWISE) WORKED INTO THE SOIL A MINIMUM OF 4".
SEED - TURF TYPE TALL FESCUE (BLEND OF 3 CULTIVARS) 350 LBS./ACRE (8 LBS./1,000 SF) OR OTHER APPROVED SEEDS; PLANT BETWEEN MARCH 1 AND OCTOBER 1 (SUMMER SEEDINGS REQUIRE IRRIGATION).
MULCH - UNROTTED STRAW OR HAY AT A RATE OF 70 TO 90 LBS./1,000 SF APPLIED TO ACHIEVE 95% SOIL SURFACE COVERAGE. MULCH SHALL BE ANCHORED BY APPROVED METHODS (I.E. PEG AND TWINE, MULCH NETTING, OR LIQUID MULCH BINDER).

DUST CONTROL NOTES

- MULCHES - SEE STANDARD OF STABILIZATION WITH MULCHES ONLY, PG. 5-1
- VEGETATIVE COVER - SEE STANDARD FOR TEMPORARY VEGETATIVE COVER, PG. 7-1; PERMANENT VEGETATIVE COVER FOR SOIL STABILIZATION, PG. 4-1 AND PERMANENT STABILIZATION WITH SOD, PG. 6-1
- SPRAY-ON ADHESIVES - ON MINERAL SOILS (NOT EFFECTIVE ON MUCK SOILS), KEEP TRAFFIC OFF THESE AREAS.
- TILLAGE - TO ROUGHEN SURFACE AND BRING CLODS TO THE SURFACE. THIS IS A TEMPORARY EMERGENCY MEASURE WHICH SHOULD BE USED BEFORE SOIL BLOWING STARTS. BEGIN PLOWING ON WINDWARD SIDE OF SITE. CHISEL-TYPE PLOWS SPACED ABOUT 12 INCHES APART AND SPRING-TOOTHED HARROWS ARE EXAMPLES OF EQUIPMENT WHICH MAY PRODUCE THE DESIRED EFFECT.
- SPRINKLING - SITE IS SPRINKLED UNTIL THE SURFACE IS WET.
- BARRIERS - SOLID BOARD FENCES, SNOW FENCES, BURLAP FENCES, CRATE WALLS, BALES OF HAY AND SIMILAR MATERIAL CAN BE USED TO CONTROL AIR CURRENTS AND SOIL BLOWING.
- CALCIUM CHLORIDE - SHALL BE IN THE FORM OF LOOSE, DRY GRANULES OR FLAKES FINE ENOUGH TO FEED THROUGH COMMONLY USED SPREADERS AT A RATE THAT WILL KEEP SURFACE MOIST BUT NOT CAUSE POLLUTION OR PLANT DAMAGE. IF USED ON STEEPER SLOPES, THEN USE OTHER PRACTICES TO PREVENT WASHING INTO STREAMS OR ACCUMULATION AROUND PLANTS.
- STONE - COVER SURFACE WITH CRUSHED STONE OR COARSE GRAVEL.

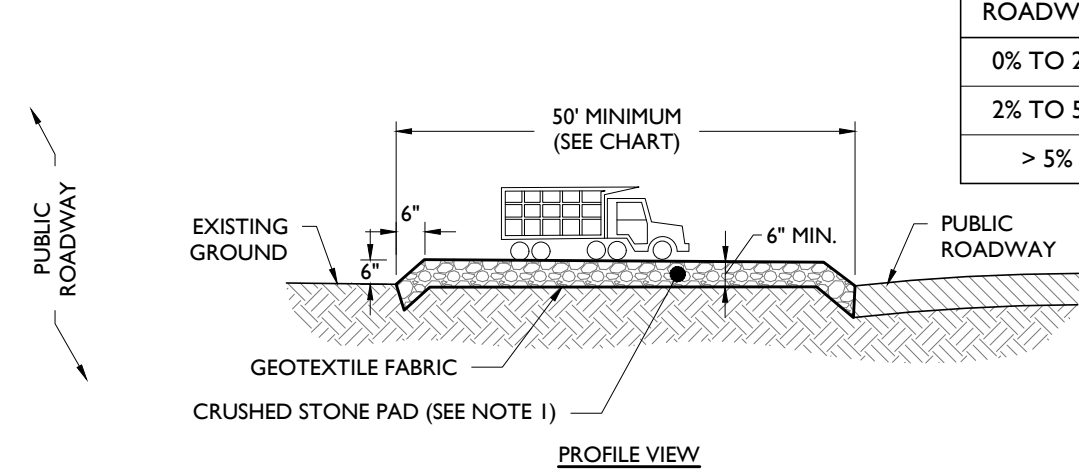
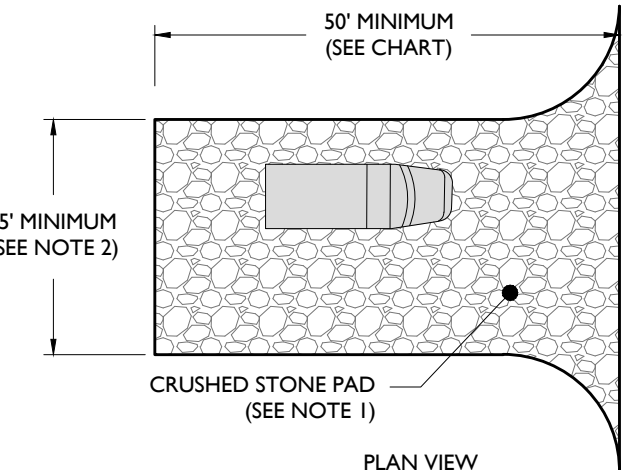
SOIL CHARACTERISTICS CHART

TYPE OF SOIL	URBAN LAND, BOONTON SUBSTRATUM - BOONTON COMPLEX, RED SANDSTONE LOWLAND (USBC08)
PERCENT OF SITE COVERAGE	100%
HYDROLOGIC SOIL GROUP	C
DEPTH TO RESTRICTIVE LAYER	20 TO 36 INCHES TO FRAGIPAN
SOIL PERMEABILITY	0.06 TO 0.20 IN/HR
DEPTH TO WATER TABLE	> 80 INCHES

THE SUBJECT PROPERTY IS LOCATED WITHIN AN URBAN REDEVELOPMENT AREA (METROPOLITAN PLANNING AREA (PA1)) AND IS THEREFORE EXEMPT FROM COMPACTION REMEDIATION

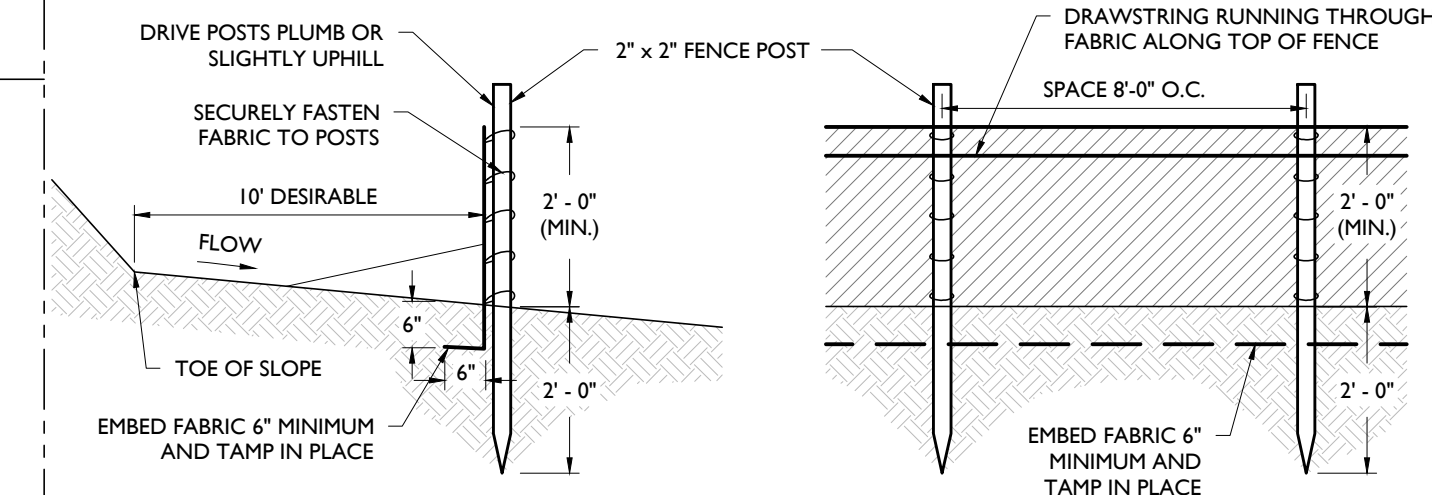
NOTES:

- STONE SHALL BE ASTM C-33, SIZE NO. 2 (2.5" TO 1.5") OR NO. 3 (2" TO 1") CLEAN CRUSHED ANGULAR STONE.
- WIDTH SHALL BE 15' MINIMUM OR THE FULL WIDTH OF THE ACCESS POINT, WHICHEVER IS GREATER.
- STORMWATER FROM UP-SLOPE AREAS SHALL BE DIVERTED AWAY FROM THE STABILIZED PAD, WHERE POSSIBLE. AT POORLY DRAINED LOCATIONS, SUBSURFACE DRAINAGE GRAVEL FILTER OR GEOTEXTILE SHALL BE INSTALLED BEFORE THE STABILIZED CONSTRUCTION ENTRANCE.
- WHERE THE SLOPE OF THE ROADWAY EXCEEDS 5%, A STABILIZED BASE OF HOT MIX ASPHALT BASE COURSE SHALL BE INSTALLED. THE TYPE AND THICKNESS OF THE BASE COURSE AND USE OF DENSE GRADED AGGREGATE SUB-BASE SHALL BE AS PRESCRIBED BY LOCAL MUNICIPAL ORDINANCE OR GOVERNING AUTHORITY.
- CONTRACTOR SHALL PROVIDE A SMOOTH TRANSITION BETWEEN THE STABILIZED CONSTRUCTION ACCESS AND THE PUBLIC ROADWAY.



STABILIZED CONSTRUCTION ACCESS DETAIL

NOT TO SCALE

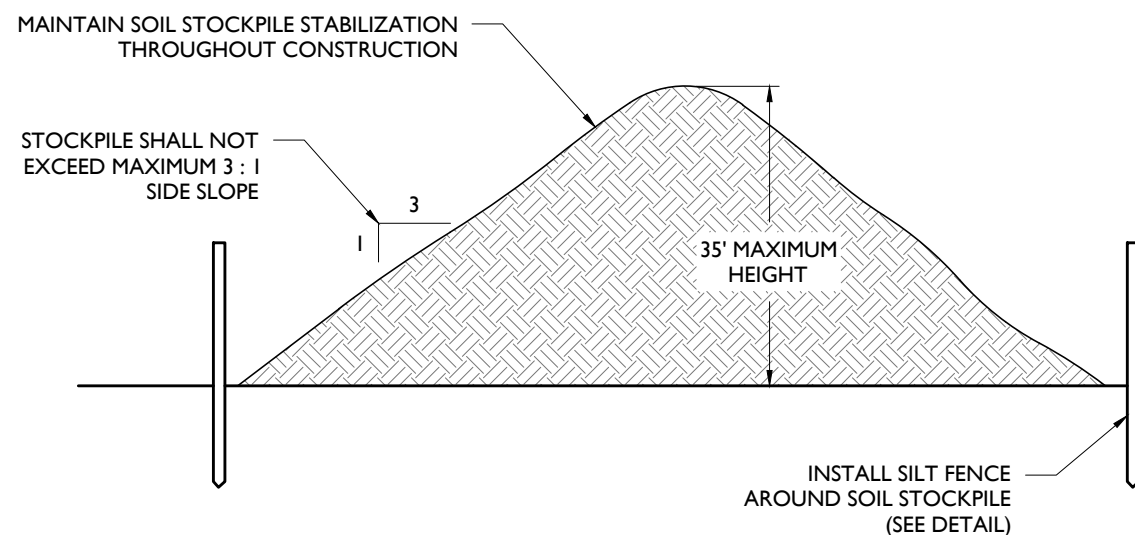


NOTES:

- SECURELY FASTEN GEOTEXTILE TO FENCE POST BY USE OF WIRE TIES, HOG RINGS, STAPLES OR POCKETS. FOUR TO SIX FASTENERS PER POST.
- GEOTEXTILE FABRIC TO BE EMBEDDED 6" (MIN.) AND TAMP IN PLACE.
- SECURELY FASTEN ENDS OF INDIVIDUAL ROLLS OF GEOTEXTILE TO A POST BY WRAPPING EACH END OF THE GEOTEXTILE AROUND THE POST TWICE AND ATTACHING AS SPECIFIED IN NOTE 1 ABOVE. SPLICING OF INDIVIDUAL ROLLS SHALL NOT OCCUR AT LOW POINTS.
- SET SILT FENCE WITHIN PROJECT LIMITS. 10'-0" IS DESIRABLE.

SILT FENCE DETAIL

NOT TO SCALE

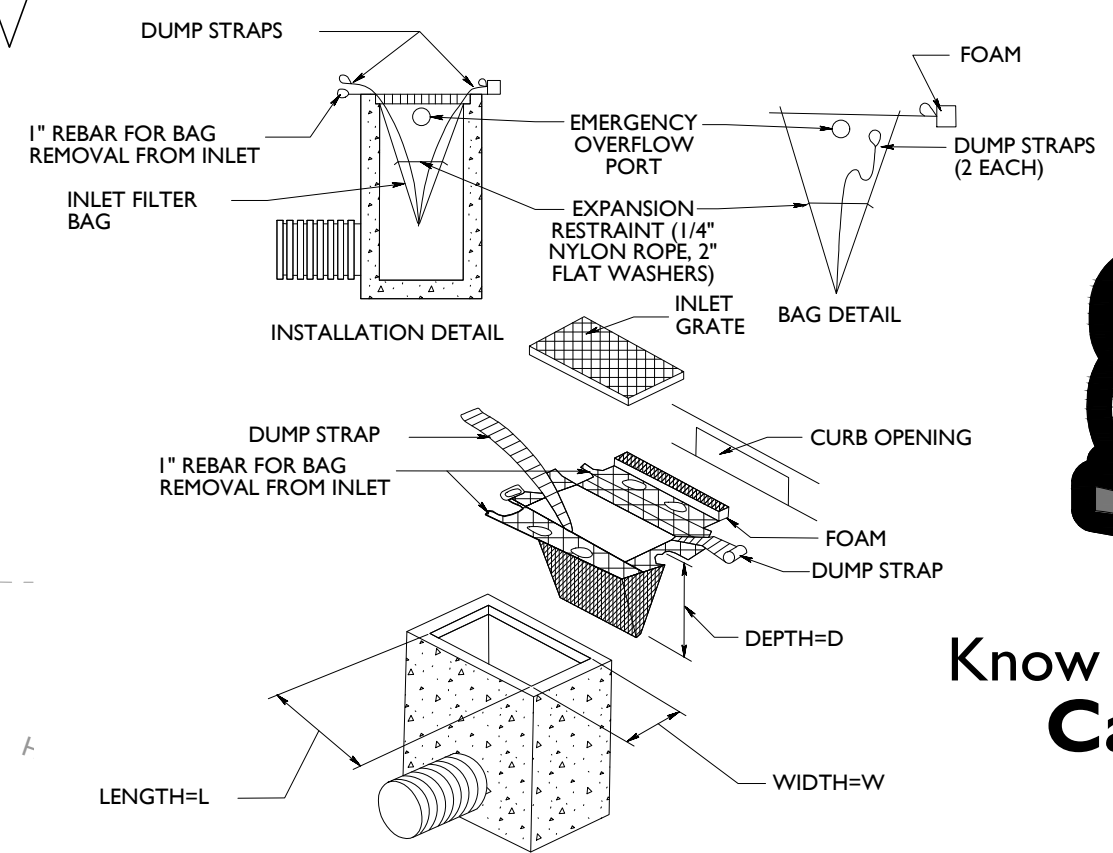


SOIL STOCKPILE DETAIL

NOT TO SCALE

NOTES:

- STOCKPILES SHALL BE SITUATED SO AS NOT TO OBSTRUCT NATURAL DRAINAGE OR CAUSE OFF-SITE ENVIRONMENTAL DAMAGE.
- STOCKPILES SHALL BE STABILIZED IN ACCORDANCE WITH THE STANDARDS FOR PERMANENT OR TEMPORARY VEGETATIVE COVER FOR SOIL STABILIZATION, AS APPROPRIATE (SEE SOIL EROSION NOTES).



NOTES:

- THE FILTER BAG SHALL SAFELY PASS FLOWS GREATER THAN THE 1-YEAR 24-HOUR STORM EVENT.
- SEDIMENT REMOVAL AND MAINTENANCE SHALL BE PERFORMED FREQUENTLY AND AFTER EVERY STORM EVENT.

INLET FILTER BAG DETAIL

NOT TO SCALE



Know what's below
Call before you dig.

Afton Savitz, P.E.
NEW JERSEY LICENSE NO. 57674
LICENSED PROFESSIONAL ENGINEER

SYMBOL

- PROPERTY BOUNDARY
- ADJACENT PROPERTY BOUNDARY
- LOD PROPOSED LIMIT OF DISTURBANCE
- SF PROPOSED SILT FENCE
- TPF PROPOSED TREE PROTECTION FENCE
- PROPOSED STOCKPILE & EQUIPMENT STORAGE
- PROPOSED STABILIZED CONSTRUCTION ENTRANCE
- PROPOSED INLET PROTECTION FILTER

HUDSON ESSEX PASSAIC SOIL CONSERVATION DISTRICT SOIL EROSION AND SEDIMENT CONTROL NOTES

- THE CONTRACTOR IS RESPONSIBLE FOR SOIL EROSION AND SEDIMENT CONTROL IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL REQUIREMENTS.
- THE CONTRACTOR IS RESPONSIBLE FOR DUST CONTROL IN COMPLIANCE WITH LOCAL, STATE, AND FEDERAL AIR QUALITY STANDARDS.
- THE CONTRACTOR IS RESPONSIBLE TO INSPECT ALL SOIL EROSION AND SEDIMENT CONTROL MEASURES WEEKLY AND AFTER A PRECIPITATION EVENT GREATER THAN 1 INCH. THE CONTRACTOR SHALL MAINTAIN AN INSPECTION LOG ON SITE AND DOCUMENT CORRECTIVE ACTION TAKEN THROUGHOUT THE COURSE OF CONSTRUCTION AS REQUIRED.
- ALL SOIL EROSION AND SEDIMENT CONTROL PRACTICES ON THIS PLAN WILL BE CONSTRUCTED IN ACCORDANCE WITH THE "NEW JERSEY STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL" 7TH EDITION LAST REVISED JULY 2017, EFFECTIVE DECEMBER 2017. THESE MEASURES WILL BE INSTALLED PRIOR TO ANY MAJOR SOIL DISTURBANCE OR IN THEIR PROPER SEQUENCE AND MAINTAINED UNTIL PERMANENT PROTECTION IS ESTABLISHED.
- SOIL TO BE EXPOSED OR STOCKPILED FOR A PERIOD OF GREATER THAN 14 DAYS, AND NOT UNDER ACTIVE CONSTRUCTION, MAY BE REQUIRED TO BE TEMPORARILY MULCHED, AND SEEDED OR OTHERWISE PROVIDED WITH VEGETATIVE COVER AS PER APPENDIX A3. THIS TEMPORARY COVER SHALL BE MAINTAINED UNTIL SUCH TIME WHEREBY PERMANENT RESTABILIZATION IS ESTABLISHED.
- SEEDING DATES: THE FOLLOWING SEEDING DATES ARE RECOMMENDED TO BEST ESTABLISH PERMANENT VEGETATIVE COVER WITHIN MOST LOCATIONS IN THE HEPSCD: SPRING - 3/1-5/15 AND FALL - 8/15-10/1
- SEDIMENT FENCES ARE TO BE PROPERLY TRENCHED AND MAINTAINED UNTIL PERMANENT VEGETATIVE COVER IS ESTABLISHED.
- ALL STORM DRAINAGE INLETS SHALL BE PROTECTED BY ONE OF THE PRACTICES ACCEPTED IN THE STANDARDS, AND PROTECTION SHALL REMAIN UNTIL PERMANENT STABILIZATION HAS BEEN ESTABLISHED. STORM DRAINAGE OUTLET POINTS SHALL BE PROTECTED AS REQUIRED BEFORE THEY BECOME FUNCTIONAL.
- MULCH MATERIALS SHALL BE UN-ROTTED SMALL GRAIN STRAW APPLIED AT THE RATE OF 70 TO 90 POUNDS PER 1,000 SQUARE FEET AND ANCHORED WITH A MULCH ANCHORING TOOL, LIQUID MULCH BINDERS, OR NETTING TIE DOWN. OTHER SUITABLE MATERIALS MAY BE USED IF APPROVED BY THE SOIL CONSERVATION DISTRICT.
- ALL EROSION CONTROL DEVICES SHALL BE PERIODICALLY INSPECTED, MAINTAINED AND CORRECTED BY THE CONTRACTOR. ANY DAMAGE INCURRED BY EROSION SHALL BE RECTIFIED IMMEDIATELY.
- THE HUDSON-ESSEX-PASSAIC SOIL CONSERVATION DISTRICT WILL BE NOTIFIED IN WRITING AT LEAST 48 HOURS PRIOR TO ANY SOIL DISTURBING ACTIVITIES. FAX - (862) 333-4507 OR EMAIL - INFORMATION@HEPSCD.ORG
- THE APPLICANT MUST OBTAIN A DISTRICT ISSUED REPORT-OF-COMPLIANCE PRIOR TO APPLICATION FOR THE CERTIFICATE OF OCCUPANCY OR TEMPORARY CERTIFICATE OF OCCUPANCY FROM THE RESPECTIVE MUNICIPALITY, NJ - DCA OR ANY OTHER CONTROLLING AGENCY. CONTACT THE DISTRICT AT 862-333-4505 TO REQUEST A FINAL INSPECTION. GIVING ADVANCED NOTICE UPON COMPLETION OF THE RESTABILIZATION MEASURES. A PERFORMANCE DEPOSIT MAY BE POSTED WITH THE DISTRICT WHEN WINTER WEATHER OR SNOW COVER PROHIBITS THE PROPER APPLICATION OF SEED, MULCH, FERTILIZER OR HYDRO-SEED.
- PAVED ROADWAYS MUST BE KEPT CLEAN AT ALL TIMES. DO NOT UTILIZE A FIRE OR GARDEN HOSE TO CLEAN ROADS UNLESS THE RUNOFF IS DIRECTED TO A PROPERLY DESIGNED AND FUNCTIONING SEDIMENT BASIN. WATER PUMPED OUT OF THE EXCAVATED AREAS CONTAINS SEDIMENTS THAT MUST BE REMOVED PRIOR TO DISCHARGING TO RECEIVING BODIES OF WATER USING REMOVABLE PUMPING STATIONS, DUMP PITS, PORTABLE SEDIMENTATION TANKS AND/OR SILT CONTROL BAGS.
- ALL SURFACES HAVING LAWN OR LANDSCAPING AS FINAL COVER ARE TO BE PROVIDED TOPSOIL PRIOR TO RE-SEEDING OR PLANTING. A DEPTH OF 5.0 INCHES, FIRMED IN PLACE, IS REQUIRED, AS PER THE STANDARDS FOR TOPSOILING AND LAND GRADING, EFFECTIVE DECEMBER 2017.
- ALL PLAN REVISIONS MUST BE SUBMITTED TO THE DISTRICT FOR PROPER REVIEW AND APPROVAL.
- A CRUSHED STONE WHEEL CLEANING TRACKING-PAD IS TO BE INSTALLED AT ALL SITE EXITS USING 2 1/2" - 1" CRUSHED ANGULAR STONE (ASTM 2 OR 3) TO A MINIMUM LENGTH OF 50 FEET AND MINIMUM DEPTH OF 6". ALL DRIVEWAYS MUST BE PROVIDED WITH CRUSHED STONE UNTIL PAVING IS COMPLETE.
- STEEP SLOPES INCURRING DISTURBANCE MAY REQUIRE ADDITIONAL STABILIZATION MEASURES. THESE "SPECIAL" MEASURES SHALL BE DESIGNED BY THE APPLICANT'S ENGINEER AND BE APPROVED BY THE SOIL CONSERVATION DISTRICT.
- THE HUDSON-ESSEX-PASSAIC SOIL CONSERVATION DISTRICT SHALL BE NOTIFIED, IN WRITING, FOR THE SALE OF ANY PORTION OF THE PROJECT OR FOR THE SALE OF INDIVIDUAL LOTS. NEW OWNERS INFORMATION SHALL BE PROVIDED. ADDITIONAL MEASURES DEEMED NECESSARY BY DISTRICT OFFICIALS SHALL BE IMPLEMENTED AS CONDITIONS WARRANT.



STONEFIELD
engineering & design

PRELIMINARY & FINAL MAJOR SITE PLAN
M. VEGA INVESTMENTS LLC
PROPOSED BUILDING ADDITION &
SITE IMPROVEMENTS

JOSHUA H. KLINE, P.E.
NEW JERSEY LICENSE NO. 54347
LICENSED PROFESSIONAL ENGINEER

STONEFIELD
engineering & design

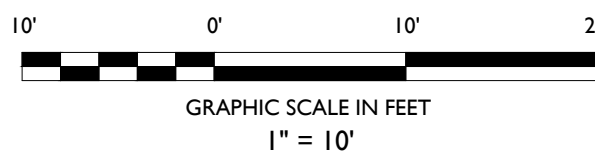
SCALE: 1" = 10' PROJECT ID: RUT-210050

TITLE:
SOIL EROSION &
SEDIMENT CONTROL
PLAN

DRAWING:

C-7

Rutherford, NJ - New York, NY - Boston, MA
Princeton, NJ - Tampa, FL - Detroit, MI
www.stonefielddesign.com
Headquarters: 92 Park Avenue, Rutherford, NJ 07070
Phone 201.340.4468 - Fax 201.340.4472



IRRIGATION NOTE:

IRRIGATION CONTRACTOR TO PROVIDE A DESIGN FOR AN IRRIGATION SYSTEM SEPARATING PLANTING BEDS FROM LAWN AREA. PRIOR TO CONSTRUCTION, DESIGN IS TO BE SUBMITTED TO THE PROJECT LANDSCAPE DESIGNER FOR REVIEW AND APPROVAL. WHERE POSSIBLE, DRIPPIRE IRRIGATION AND OTHER WATER CONSERVATION TECHNIQUES SUCH AS RAIN SENSORS SHALL BE INCORPORATED INTO THE DESIGN. CONTRACTOR TO VERIFY MAINTAIN ON SITE DYNAMIC PRESSURE AVAILABLE MEASURED IN PSI. PRESSURE REDUCING DEVICES OR BOOSTER PUMPS SHALL BE PROVIDED TO MEET SYSTEM PRESSURE REQUIREMENTS. DESIGN TO SHOW ALL VALVES, PIPING, BACKFLOW PREVENTION, METERS, CONTROLLERS, AND SLEEVES WITHIN HARDSCAPE AREAS.

LANDSCAPING AND BUFFER REQUIREMENTS		
CODE SECTION	REQUIRED	PROPOSED
§ 25-8-4.C	SIX FOOT HIGH FENCE LOCATION: SIDE AND REAR YARDS	FRONT, SIDE AND REAR YARDS (V)
§ 25-11-3.A	A BUFFER STRIP SHALL BE PLANTED AND MAINTAINED WITH TREES AND SHRUBS TO ADEQUATELY SCREEN BUILDINGS ADJACENT TO RESIDENTIAL DISTRICTS	COMPLIES
§ 25-11-3.B	MINIMUM BUFFER STRIP WIDTH: 20 FT	5.1 FT (V)
§ 25-12-1.P	PLANTING REQUIREMENT: ONE TREE PLUS GROUND LEVEL PLANTING FOR EVERY 10 PARKING STALLS PROPOSED. (11 STALLS / 10 STALLS) * 10 TREE = 2 TREES	3 TREES

(V) VARIANCE



- ## LANDSCAPING NOTES
1. THE CONTRACTOR SHALL RESTORE ALL DISTURBED GRASS AND LANDSCAPED AREAS TO MATCH EXISTING CONDITIONS UNLESS INDICATED OTHERWISE WITHIN THE PLAN SET.
 2. THE CONTRACTOR SHALL RESTORE ALL DISTURBED LAWN AREAS WITH A MINIMUM 4 INCH LAYER OF TOPSOIL AND SEED.
 3. THE CONTRACTOR SHALL RESTORE MULCH AREAS WITH A MINIMUM 2 INCH LAYER OF MULCH.
 4. THE MAXIMUM SLOPE ALLOWABLE IN LANDSCAPE RESTORATION AREAS SHALL BE 3 FEET HORIZONTAL TO 1 FOOT VERTICAL (3:1) SLOPE UNLESS INDICATED OTHERWISE WITHIN THE PLAN SET.
 5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TREE HEADS IN AREA OF LANDSCAPING DISTURBANCE PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL RELOCATE SPRINKLER HEADS TO MAINTAIN DISTANCE WITH OWNER'S DIRECTION WITHIN AREAS OF DISTURBANCE.
 6. THE CONTRACTOR SHALL ENSURE THAT ALL DISTURBED AREAS ARE GRADED TO MEET FUTURE FINISHED ELEVATION OF WALKWAYS AND TOP OF CURB ELEVATIONS EXCEPT UNLESS INDICATED OTHERWISE WITHIN THE PLAN SET. NO ABUTT CURBS OR GRADES IN GRADE ARE PERMITTED IN DISTURBED LANDSCAPING AREAS.

Afton Savitz
AFTON SAVITZ, P.E.
NEW JERSEY LICENSE No. 57674
LICENSED PROFESSIONAL ENGINEER

[illegible]

NOT APPROVED FOR CONSTRUCTION



Rutherford, NJ • New York, NY • Boston, MA
Princeton, NJ • Tampa, FL • Detroit, MI
www.stonefieldeng.com

www.stonefieldeng.com

Headquarters: 92 Park Avenue, Rutherford, NJ 07070
Phone 201 340 4468 • Fax 201 340 4472

Phone 201 340 4468 • Fax 201 340 4472

PRELIMINARY & FINAL MAJOR SITE PLAN

M. VEGA INVESTMENTS LLC

PROPOSED BUILDING SITE IMPROVEMENTS

**BLOCK 134.02, LOTS 75.03, 79 & 81
66 FRANKLIN AVENUE
TOWNSHIP OF WEST ORANGE
ESSEX COUNTY, NEW JERSEY**



JOSHUA H. KLINE, P.E.
NEW JERSEY LICENSE No. 54347
LICENSED PROFESSIONAL ENGINEER



SCALE:	1" = 10'	PROJECT ID: RUT-210050
--------	----------	------------------------

TITLE

LANDSCAPING PLAN

DRAWING

C-8

1. FOR CONTAINER-GROWN TREES, USE FINGERS OR SMALL HAND TOOLS TO PULL THE ROOTS OUT OF THE OUTER LAYER OF POTTING SOIL; THEN CUT OR PULL APART ANY ROOTS CIRCULING THE PERIMETER OF THE CONTAINER.
2. THOROUGHLY SOAK THE TREE ROOT BALL AND ADJACENT PREPARED SOIL SEVERAL TIMES DURING THE FIRST MONTH AFTER PLANTING AND REGULARLY THROUGHOUT THE FOLLOWING TWO SUMMERS.
3. SOIL AMENDMENTS:
 - **MODIFY HEAVY CLAY OR SILT SOILS (MORE THAN 40% CLAY OR SILT) BY ADDING COMPOSTED PINE BARK (UP TO 30% BY VOLUME) OR GYPSSUM**
 - **MODIFY EXTREMELY SANDY SOILS (MORE THAN 85% SAND) BY ADDING ORGANIC MATTER AND/OR DRY, SHREDED CLAY LOAM UP TO 30% OF THE TOTAL MIX**



1. FOR CONTAINER-GROWN TREES, USE FINGERS OR SMALL HAND TOOLS TO PULL THE ROOTS OUT OF THE OUTER LAYER OF POTTING SOIL; THEN CUT OR PULL APART ANY ROOTS CIRCLING THE PERIMETER OF THE CONTAINER.
2. THOROUGHLY SOAK THE TREE ROOT BALL AND ADJACENT PREPARED SOIL SEVERAL TIMES DURING THE FIRST MONTH AFTER PLANTING AND REGULARLY THROUGHOUT THE FOLLOWING TWO SUMMERS.
3. SOIL AMENDMENTS:
 - MODIFY HEAVY CLAY OR SILT SOILS (MORE THAN 40% CLAY OR SILT) BY ADDING COMPOSTED PINE BARK (UP TO 30% BY VOLUME) OR GYPSUM
 - MODIFY EXTREMELY SANDY SOILS (MORE THAN 85% SAND) BY ADDING ORGANIC MATTER AND/OR DRY, SHREDDED CLAY LOAM UP TO 30% OF THE TOTAL MIX



1. THE LANDSCAPE CONTRACTOR SHALL FURNISH ALL MATERIALS AND PERFORM ALL WORK IN ACCORDANCE WITH THESE SPECIFICATIONS, APPROVED OR FINAL DRAWINGS, AND INSTRUCTIONS PROVIDED BY THE PROJECT LANDSCAPE DESIGNER, MUNICIPAL OFFICIALS, OR OWNER/OWNER'S REPRESENTATIVE. ALL WORK COMPLETED AND MATERIALS FURNISHED AND INSTALLED SHALL BE IN ACCORDANCE WITH THE INTENTION OF THE SPECIFICATIONS, DRAWINGS, AND INSTRUCTIONS AND EXECUTED WITH THE STANDARD LEVEL OF CARE FOR THE LANDSCAPE INDUSTRY.
2. WORK MUST BE CARRIED OUT ONLY DURING WEATHER CONDITIONS FAVORABLE TO LANDSCAPE CONSTRUCTION AND TO THE HEALTH AND WELFARE OF PLANTS. THE SUITABILITY OF SUCH WEATHER CONDITIONS SHALL BE DETERMINED BY THE PROJECT LANDSCAPE DESIGNER OR GOVERNING MUNICIPAL OFFICIAL.
3. IT IS THE OBLIGATION OF THE LANDSCAPE CONTRACTOR, BEFORE ORDERING OR PURCHASING MATERIALS, TO PROVIDE SAMPLES OF THOSE MATERIALS TO THE PROJECT LANDSCAPE DESIGNER OR GOVERNING MUNICIPAL OFFICIAL FOR APPROVAL, IF SO REQUESTED.
4. IF SAMPLES ARE REQUESTED, THE LANDSCAPE CONTRACTOR IS TO SUBMIT CERTIFICATION TAGS FROM TREES, SHRUBS AND SEED VEGETABLE TYPE AND SIZE.
5. UNLESS OTHERWISE AUTHORIZED BY THE PROJECT LANDSCAPE DESIGNER OR GOVERNING MUNICIPAL OFFICIAL, THE LANDSCAPE CONTRACTOR SHALL PROVIDE NOTICE AT LEAST FORTY-EIGHT HOURS (48 HRs) IN ADVANCE OF THE ANTICIPATED DELIVERY DATE OF ANY PLANT MATERIALS TO THE PROJECT SITE. A LEGIBLE COPY OF THE INVOICE, SHOWING VARIETIES AND SIZES OF MATERIALS INCLUDED FOR EACH SHIPMENT SHALL BE FURNISHED TO THE PROJECT LANDSCAPE DESIGNER OR GOVERNING MUNICIPAL OFFICIAL.
6. THE PROJECT LANDSCAPE DESIGNER OR GOVERNING MUNICIPAL OFFICIAL RESERVES THE RIGHT TO INSPECT AND REJECT PLANTS AT ANY TIME AND AT ANY PLACE.

BEFORE COMMENCING WORK, ALL EXISTING VEGETATION WHICH COULD BE IMPACTED AS A RESULT OF THE PROPOSED CONSTRUCTION ACTIVITIES MUST BE PROTECTED FROM DAMAGE BY THE INSTALLATION OF TREE PROTECTION FENCING. FENCING SHALL BE LOCATED AT THE PERIMETER OF THE PROPOSED CONSTRUCTION ACTIVITIES AND SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE FOLLOWING: (1) A PLAN SET, ESTABLISHING THE TREE PROTECTION ZONE, FENCE INSTALLATION SHALL BE IN ACCORDANCE WITH THE PROVIDED "TREE PROTECTION FENCE DETAIL." NO WORK MAY BEGIN UNTIL THIS REQUIREMENT IS FULFILLED. THE FENCING SHALL BE INSPECTED REGULARLY BY THE LANDSCAPE CONTRACTOR AND MAINTAINED UNTIL ALL CONSTRUCTION ACTIVITIES ARE COMPLETED.

2. IN ORDER TO AVOID DAMAGE TO ROOTS, BARK OR LOWER BRANCHES, NO VEHICLE, EQUIPMENT, DEBRIS, OR OTHER MATERIALS SHALL BE DRIVEN, PARKED OR PLACED WITHIN THE TREE PROTECTION ZONE. ALL ON-SITE CONSTRUCTION SHALL BE LIMITED TO THE TREE PROTECTION ZONE. ALL EXISTING TREES, PLANTS, WALKS, PAVEMENTS, UTILITIES, AND ANY OTHER FEATURES EITHER EXISTING OR PREVIOUSLY INSTALLED UNDER THIS CONTRACT.

3. IN RARE INSTANCES WHERE EXCAVATING, FILL, OR GRADING IS REQUIRED WITHIN THE DRIP-LINE OF TREES TO REMAIN, THE FOLLOWING SHALL BE REQUIRED:

- TRENCING: WHEN TRENCING OCCURS AROUND TREES TO REQUIRE, THE TREE ROOTS SHALL NOT BE CUT, BUT THE TRENCH SHALL BE TUNNELED UNDER OR AROUND THE ROOTS BY CAREFUL HAND DIGGING AND WITHOUT INJURY TO THE ROOTS. NO ROOTS, LIMBS, OR WOODS ARE TO HAVE ANY PAINT OR MATERIAL APPLIED TO ANY SURFACE.
- GRADING: WHEN GRADING IS REQUIRED, THE GRADING SHALL BE COMPLETED TO THE FINISHED GRADE, NOT EXCEEDING 6 INCHES (6") IS REQUIRED, CLEAN, WASHED GRAVEL FROM ONE TO TWO INCHES (1" - 2") IN SIZE SHALL BE PLACED DIRECTLY AROUND THE TREE TRUNK. THE GRAVEL SHALL EXTEND OUT FROM THE TRUNK ON ALL SIDES AND BE 12 INCHES (12") IN DEPTH. THE GRAVEL SHALL BE PLACED TO THE FINISHED GRADE. THE FINISHED GRADE SHALL BE PLACED DIRECTLY AROUND THE TREE TRUNK. NEW FINISH FILL SHALL NOT BE LEFT IN CONTACT WITH THE TRUNK OF ANY TREE REQUIRING FILL, WHERE FILL EXCEEDING 6 INCHES (6") IS REQUIRED, A DRY LAID TREE WELL SHALL BE CONSTRUCTED. THE TREE WELL SHALL BE 12 INCHES (12") IN DIAMETER AND 12 INCHES (12") IN DEPTH.
- LOWERING GRADING: WHEN LOWERING GRADING IS REQUIRED, THE FINISHED GRADE SHALL BE TO BE LOWERED, SHALL HAVE RE-GRADING WORK DONE BY HAND TO THE INDICATED ELEVATION, NO GREATER THAN SIX INCHES (6"), ROOTS SHALL BE CUT CLEANLY THREE INCHES (3") BELOW FINISHED GRADE UNDER THE DIRECTION OF A LICENSED ARBORIST.

4. THE RETAINING WALL INSTALLATION SHALL BE IN ACCORDANCE WITH THE PROVIDED "TREE RETAINING WALL DETAIL."

1. LANDSCAPE CONTRACTOR SHALL OBTAIN A SOIL TEST OF THE IN-SITU TOPSOIL BY A CERTIFIED SOIL LABORATORY PRIOR TO PLANTING. LANDSCAPE CONTRACTOR SHALL ALLOW FOR A TWO WEEK TURNAROUND TIME FROM SUBMITTAL OF SAMPLE TO NOTIFICATION OF RESULTS.
2. BASED ON THE TEST RESULTS, THE CONTRACTOR SHALL ADJUST THE RATES OF LIME AND FERTILIZER THAT SHALL BE MIXED INTO THE TOP SIX INCHES (6") OF TOPSOIL. THE LIME AND FERTILIZER RATES PROVIDED WITHIN THE "SEED SPECIFICATION" OR "SOil SPECIFICATION" AS FURNISHED AND FOR BEDDING PURPOSES ONLY. IF ADDITIONAL ADJUSTMENTS ARE NECESSARY, ADJUST THE TOPSOIL AS APPROPRIATE.
3. "MODIFY" HEAVY CLAY OR SILT SOILS (MORE THAN 40% CLAY OR SILT) BY ADDING COMPOSTED PINE BARK (UP TO 30% BY VOLUME) OR GYP-SUM.
4. "MODIFY" EXTREMELY SANDY SOILS (MORE THAN 85%) BY ADDING ORGANIC MATTER AND/OR DRY, SHREDDED CLAY LOAM.
5. TOPSOIL SHALL BE FERTILE, FRABLE, NATURAL SOIL OF LOAMING CHARACTER, WITHOUT ADMIXTURE OF SUBSOIL MATERIAL OBTAINED FROM A WELL-DRAINED ARABLE SITE, FREE FROM ALL CLAY, LUMPS, COARSE SANDS, STONES, PLANTS, ROOTS, STICKS, AND OTHER FOREIGN MATERIAL GREATER THAN ONE INCH (1").
6. LANDSCAPE CONTRACTOR SHALL NOT ALLOW ANY SUBSOIL MATERIAL TO BE MIXED WITH THE TOPSOIL. NO MORE THAN 6% ORGANIC MATTER BY WEIGHT.
7. OBTAIN TOPSOIL ONLY FROM LOCAL SOURCES OR FROM AREAS HAVING SIMILAR SOIL CHARACTERISTICS TO THAT FOUND AT THE PROJECT SITE.
8. CONTRACTOR SHALL PROVIDE A SIX INCH (6") DEEP LAYER OF TOPSOIL IN ALL PLANTING AREAS. TOPSOIL SHALL BE SPREAD OVER A PREPARED SURFACE IN A UNIFORM LAYER TO ACHIEVE THE DESIRED CONTACT THICKNESS. THE SPREADING OF TOPSOIL SHALL NOT BE CONDUCTED UNDER MUDDY OR FROZEN SOIL CONDITIONS.
9. UNLESS OTHERWISE NOTED IN THE CONTRACT, THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION OF TOPSOIL AND THE ESTABLISHMENT OF FINE-GRADING WITHIN THE DISTURBED AREA OF THE SITE.
10. LANDSCAPE CONTRACTOR SHALL NOT ALLOW ANY TOPSOIL TO BE SPREAD AT OR ABOVE THE FINISHED GRADE ELEVATION (LESS THE REQUIRED TOPSOIL), IN ACCORDANCE WITH THE APPROVED OR FINAL GRADING PLAN.
11. ALL LAWN AND PLANTING AREAS SHALL BE GRADED TO A SMOOTH, EVEN AND UNIFORM PLANE WITH NO ABRUPT CHANGES OF SURFACE AS DIRECTED WITHIN THE APPROVED OR FINAL CONSTRUCTION SET UNLESS OTHERWISE DIRECTED BY THE PRODUCT AND PLANT MANUFACTURER.
12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROPER SURFACE AND SUBSURFACE PLANT BED DRAINAGE PRIOR TO THE INSTALLATION OF PLANTINGS. IF POOR DRAINAGE CONDITIONS EXIST, CORRECTIVE ACTION SHALL BE TAKEN PRIOR TO INSTALLATION. ALL PLANTING AND LAWN AREAS SHALL BE GRADED AND MAINTAINED TO ALLOW A FREE FLOW OF SURFACE WATER.
13. DOUBLE SHREDDED HARDWOOD MULCH OR APPROVED EQUAL SHALL BE USED AS A THREE INCH (3") TOP DRESSING IN ALL SHRUB PLANTING BEDS AND AROUND ALL TREES PLANTED BY LANDSCAPE CONTRACTOR. GROUND COVER, PERENNIAL, AND ANNUAL PLANTINGS SHALL BE MULCHED WITH A TWO INCH (2") TOP DRESSING. SINGLE TREE OR SHRUBS SHALL BE MULCHED TO AVOID CONTACT WITH TRUNK OR PLANT STEM. MULCH SHALL BE OF SUFFICIENT CHARACTER AS NOT TO BE EXCESSIVELY DISPLACED BY WIND OR WATER RUNOFF.
14. WHENEVER POSSIBLE, THE SOIL PREPARATION AREA SHALL BE CONNECTED FROM PLANTING TO PLANTING.
15. SOIL SHALL BE MOISTENED WITH WATER OR OTHER LARGE COARSE-TINE EQUIPMENT UNLESS THE SOIL IS FROZEN OR EXCESSIVELY WET. TILING THAT PRODUCES LARGE, COARSE CHUNKS OF SOIL IS PREFERABLE TO TILING THAT RESULTS IN FINE GRAINS UNIFORM IN TEXTURE. AFTER THE AREA IS LOOSENED IT SHALL NOT BE DRIVEN OVER BY ANY VEHICLE.
16. APPLY PRE-EMERGENT WEED CONTROL TO ALL PLANT BEDS PRIOR TO MULCHING. ENSURE COMPATIBILITY BETWEEN PRODUCT AND PLANT MATERIAL.
17. ALL PLANTING SOIL SHALL BE AMENDED WITH THE FOLLOWING:

MYCRO® TREE SAVER - A DRY GRANULAR MYCORRHIZAL FUNGUS INOCULANT THAT IS MIXED IN THE BACKFILL WHEN PLANTING TREES AND SHRUBS. IT CONTAINS SPORES OF BOTH ECTOMYCORRHIZAL AND VA MYCORRHIZAL FUNGI (VAM). BENEFICIAL RHIZOSPHERE BACTERIA, THERA-SORB SUPERABSORBENT HYDROGEL TO REDUCE WATER LEACHING, AND A FERTILIZER.

DIRECTIONS FOR USE: USE 3-0Z PER FEET SPOUT DIAMETER OF THE ROOT BALL, OR 3-0Z PER INCH CALIPER. MIX INTO THE BACKFILL WHEN TRANSPLANTING TREES AND SHRUBS. MIX PRODUCT IN A RING-SHAPED VOLUME OF SOIL AROUND THE UPPER PORTION OF THE ROOT BALL. DO NOT INJECT OR FORCE INTO NODULARITY. DO NOT OVERWATER TREES AND SHRUBS. EXTENDING OUT FROM THE ROOT BALL ABOUT 8 INCHES INTO THE BACKFILL. APPLY WATER TO SOIL SATURATION.

MYCRO® TREE SAVER® IS EFFECTIVE FOR ALL TREE AND SHRUB SPECIES EXCEPT RHODODENDRONS, AZALEAS, AND MOUNTAIN LAUREL, WHICH REQUIRE ERICOID MYCORRHIZAE.

SOIL PH: THE FUNGUS IN THIS PRODUCT WERE CHOSEN BASED ON THEIR ABILITY TO SURVIVE AND COLONIZE PLANT ROOTS IN A PH RANGE OF 3 TO 9.

FUNGICIDES: THE USE OF CERTAIN FUNGICIDES CAN HAVE A DETRIMENTAL EFFECT ON THE INOCULATION PROGRAM. SOIL APPLICATION OF ANY FUNGICIDE IS NOT RECOMMENDED FOR TWO WEEKS AFTER APPLICATION.

OTHER PRODUCTS: DO NOT APPLY OTHER FUNGICIDES OR FUNGICIDES THAT DO NOT NORMALLY AFFECT MYCORRHIZAL FUNGAL DEVELOPMENT, BUT MAY INHIBIT THE GROWTH OF SOME TREE AND SHRUB SPECIES IF NOT USED PROPERLY.

- TABLETS ARE FORMULATED FOR LONG-TERM RELEASE BY SLOW BIODEGRADATION, AND LAST UP TO 2 YEARS AFTER PLANTING. TABLETS CONTAIN 12-8 NPK FERTILIZER, AS WELL AS A MINIMUM OF SEVEN PERCENT (7%) HUMIC ACID BY WEIGHT, MICROBIAL NUTRIENTS DERIVED FROM SEA KELP, PROTEIN BYPRODUCTS, AND YUCCA SCHIDIGERA, AND A COMPLEMENT OF BENEFICIAL RHIZOSPHERE BACTERIA. THE STANDARD 21 GRAM TABLET IS SPECIFIED HERE. DIRECTIONS FOR USE: FOR PLANTING BALLOO & BURLEPPED (88B) TREES AND SHRUBS, MEASURE THE THICKNESS OF THE TRUNK, AND USE ABOUT 1 TABLET (21-G) PER HALF-INCH. PLACE THE TABLETS DIRECTLY NEXT TO THE ROOT BALL, EVENLY DISTRIBUTED AROUND ITS PERIMETER, AT A DEPTH OF ABOUT 4 INCHES.

1. ALL PLANT MATERIAL SHALL CONFORM TO THE AMERICAN STANDARD FOR NURSERY STOCK (ANSI Z60.1-2004) OR LATEST REVISION AS PUBLISHED BY THE AMERICAN NURSERY AND LANDSCAPE ASSOCIATION.
2. ALL PLANTS SHALL BE INSTANTANEOUS NAMES LISTED WITHIN THE APPROVED OR FINAL PLANT LIST SHALL TAKE PRECEDENCE OVER COMMON NAMES.
3. ALL PLANTS SHALL BE OF SELECTED SPECIMEN QUALITY, EXCEPTIONALLY HEAVY, TIGHTLY KNIT, SO TRAINED OR FAVORED IN THEIR DEVELOPMENT AND APPEARANCE AS TO BE SUPERIOR IN FORM, NUMBER OF BRANCHES, COMPACTNESS AND SYMMETRY.
4. ALL PLANTS MUST HAVE HEALTHY, VIGOROUS ROOTS AND BARK. ALL VIGOROUS PLANTS WITH WELL DEVELOPED ROOTS FROM PLANTS SHALL BE FREE OF DISEASE, INSECT PESTS, EGGS OR LARVAE.
5. PLANTS SHALL NOT BE PRUNED BEFORE DELIVERY. TREES WITH ABRASION OF THE BARK, SUNSCALDS, DISFIGURING KNOTS OR FREAKS OF LIMBS OVER ONE AND ONE-FOURTH INCHES (1-1/4") WHICH HAVE NOT BEEN COMPLETELY CALLOUSED SHALL BE REJECTED.
6. ALL PLANTS SHALL BE TYPICAL OF THEIR SPECIES OR VARIETY AND SHALL HAVE A NORMAL HABIT OF GROWTH AND BE LEGIBLY TAGGED WITH THE PROPER NAME AND SIZE.
7. ALL PLANTS OF EACH SPECIES SHALL BE WELL PROVIDED WITH FIBROUS ROOTS. ALL PARTS SHALL BE SOUND, HEALTHY, VIGOROUS, WELL-BRANCHED AND DENSELY FOLIATED WHEN IN LEAF.
8. ALL PLANTS DESIGNATED BALL AND BURLAP (BB&B) MUST BE MOVED WITH THE ROOT SYSTEM AS SOLID UNITS WITH BALLS OF BURLAP AND TWINE. THE BALLS OF TWINE SHALL BE SUFFICIENTLY TIGHT TO HOLD THE BALLS OF ROOTS TOGETHER AND TO ENCOMPASS THE FIBROUS ROOT FEEDING SYSTEMS NECESSARY FOR THE HEALTHY DEVELOPMENT OF THE PLANT. NO BALL SHALL BE ACCEPTED WHEN THE BALL OF EARTH SURROUNDING ITS ROOTS HAS BEEN BADLY CRACKED OR BROKEN.
9. PREPARATORY TO OR DURING THE PROCESS OF PLANTING, THE BALLS SHALL REMAIN INTACT DURING ALL OPERATIONS. ALL PLANTS SHALL BE KEPT IN THE SHADE AND MOISTURE OF THE BALLS OF EARTH AND GROUND AND PRESERVED BY WATERING WITH SOIL OR MULCH AND THEN WATERING. HEMP BURLAP AND TWINE IS PREFERABLE TO TREED. IF TREATED BURLAP IS USED, ALL TWINE IS TO BE CUT FROM AROUND THE TRUNK AND ALL BURLAP IS TO BE REMOVED.
10. PLANTS SHALL BE PLANTED IN A MANNER THAT WILL PROTECT THEM FROM DAMAGE BY TRUCKS OR OTHER VEHICLES CARRIED SECURELY FASTENED TO THE BODY OF THE VEHICLE TO PREVENT INJURY TO THE PLANTS. CLOSED VEHICLES SHALL BE ADEQUATELY VENTILATED TO PREVENT OVERHEATING OF THE PLANTS. EVIDENCE OF INADEQUATE PROTECTION FOLLOWING DIGGING, CARELESSNESS WHILE IN TRANSIT, OR IMPROPER HANDLING OR STORAGE SHALL BE CAUSE FOR REJECTION OF PLANTS.
11. ALL PLANTS SHALL BE PLANTED IN A MANNER THAT WILL PROTECT THEM FROM DAMAGE BY TRUCKS OR OTHER VEHICLES CARRIED SECURELY FASTENED TO THE BODY OF THE VEHICLE TO PREVENT INJURY TO THE PLANTS. CLOSED VEHICLES SHALL BE ADEQUATELY VENTILATED TO PREVENT OVERHEATING OF THE PLANTS. EVIDENCE OF INADEQUATE PROTECTION FOLLOWING DIGGING, CARELESSNESS WHILE IN TRANSIT, OR IMPROPER HANDLING OR STORAGE SHALL BE CAUSE FOR REJECTION OF PLANTS.
12. ALL PLANT MATERIAL SHALL BE INSTALLED IN ACCORDANCE WITH THE CORRESPONDING LANDSCAPE PLAN AND PLANTING

10. LANDSCAPE CONTRACTOR SHALL MAKE BEST EFFORT TO INSTALL PLANTINGS ON THE SAME DAY AS DELIVERY. IF PLANTS ARE NOT PLANTED IMMEDIATELY ON SITE, PROPER CARE SHALL BE TAKEN TO PLACE THE PLANTINGS IN PARTIAL SHADE WHEN POSSIBLE. THE ROOT BALL SHALL BE KEPT MOIST AT ALL TIME AND COVERED WITH MOISTENED MULCH OR AGED COMPOST. PLANTS SHALL BE COVERED WITH MULCH TO NOT ALLOW THE ROOT BALL TO DRY OUT. PLANTINGS SHALL BE UNITED AND PROPER SPACING SHALL BE ALLOTTED FOR AIR CIRCULATION AND TO PREVENT DISEASE, WILTING, AND LEAF LOSS. PLANTS THAT REMAIN UNPLANTED FOR A PERIOD OF TIME GREATER THAN THREE (3) DAYS SHALL BE HEALED IN WITH TOPSOIL OR MULCH AND WATERED AS REQUIRED TO PRESERVE ROOT MOISTURE.

11. NO DIRT OR MULCH SHALL BE PLANTED IN MUDDY OR FROZEN SOIL.

12. PLANTS WITH INJURED ROOTS OR BRANCHES SHALL BE PRUNED PRIOR TO PLANTING UTILIZING CLEAN, SHARP TOOLS. ONLY DISEASED OR INJURED PLANTS SHALL BE REMOVED.

13. IF ROCK OR OTHER UNDERGROUND OBSTRUCTION IS ENCOUNTERED, THE LANDSCAPE DESIGNER RESERVES THE RIGHT TO RELOCATE OR ENLARGE PLANTING PITS OR DELETE PLANT MATERIAL FROM THE CONTRACT.

14. IF PLANTS ARE PLANTED AT AN UNUSUAL ANGLE, TREES SHALL BE UNBED AND MAINTAINED TO A HEIGHT OF EIGHT FEET ABOVE GRADE, AND SHRUBS, GROUND COVER, PERENNIALS, AND ANNUALS SHALL BE MAINTAINED TO A HEIGHT NOT TO EXCEED TWO FEET (2) ABOVE GRADE UNLESS OTHERWISE NOTED OR SPECIFIED BY THE GOVERNING MUNICIPALITY OR AGENCY.

15. INSTALLATION SHALL OCCUR DURING THE FOLLOWING SEASONS:
PLANTS (MARCH 15 - DECEMBER 15)
LAWNS (MARCH 15 - JUNE 15 OR SEPTEMBER 1 - DECEMBER 1)

16. THE FOLLOWING TREES ARE SUSCEPTIBLE TO TRANSPORT SHOCK AND SHALL NOT BE PLANTED DURING THE FALL SEASON:

ABIES CONCOLOR
ACER BURGERSIANUM
ACER FREEMANTLIANUM
ACER RUBRUM
ACER SACCHARINUM
BETULA VARIETES
CARPINUS VARIETES
CEDRUS DEODARA
CELTIS VARIETES
CERCIDIPHYLLUM VARIETES
CORYLUS CANADENSIS
CORNUS VARIETES
CRATAEGUS VARIETES

CORNUS VARIETES
CRATAEGUS VARIETES
CURTISOXYCYPARIS LEVLANDII
FAGUS VARIETES
HALLIAE VARIETES
ILIX OX FOSTERI
JUNIPERUS HILLI STEVENS
LELX OPACA
KONJURBER VIRGINIANA
KOELERUTERIA PANICULATA
LIQUIDAMBAR VARIETES
LIRIODENDRON VARIETES
MULIO IN LEAF
NYSSA SYLVATICA

Ostrya virginiana
Pinus nigra
Quercus v. prinus
Populus varieties
Prunus varieties
Pyrus varieties
Quercus varieties (NOT Q. PALUSTRIS)
Salix weeping varieties
Sorbus varieties
Taxodium varieties
Taxus canadensis
Thuja tomentosa varieties
Ulmus parvifolia varieties
Zelkova varieties

17. IF A PROPOSED PLANT IS UNAVAILABLE OR ON THE LATE DIGGING HAZARD LIST, AN EQUIVALENT SPECIES OF THE SAME SIZE MAY BE REQUESTED FOR SUBSTITUTION OF THE ORIGINAL PLANT. ALL SUBSTITUTIONS SHALL BE APPROVED BY THE PROJECT LANDSCAPE DESIGNER OR MUNICIPAL OFFICIAL PRIOR TO ORDERING AND INSTALLATION.

18. DURING THE COURSE OF CONSTRUCTION/PRIOR INSTALLATION, EXCESS AND WASTE MATERIALS SHALL BE CONTINUOUSLY REMOVED AND NOT ALLOWED TO ACCUMULATE AT ANY WORK AREA. EXCESS MATERIALS AND TOOLS SHALL BE PROPERLY STORED, STOCKPILED OR DISPOSED OF AND ALL PAVED AREAS SHALL BE CLEANED.

19. THE LANDSCAPE CONTRACTOR SHALL DISPOSE OF ALL RUBBISH AND EXCESS SOIL AT HIS EXPENSE TO AN OFF-SITE LOCATION AS APPROVED BY THE LOCAL MUNICIPALITY.

20. MAINTENANCE PERIODS SHALL BEGIN IMMEDIATELY AFTER ALL PLANTS HAVE BEEN SATISFACTORILY INSTALLED.

21. MAINTENANCE SHALL INCLUDE, BUT NOT BE LIMITED TO, REPLACING MULCH THAT HAS BEEN DISPLACED BY EROSION OR OTHER MEANS, REPAIRING AND RESHAPING WATER RUNS OR SAUCERS, MAINTAINING STAKES AND GUYS IF ORIGINALLY REQUIRED, WATERING WHEN NEEDED OR DIRECTED, WEEDING, PRUNING, SPRAYING, FERTILIZING, MOWING THE LAWN, AND PERFORMING ANY OTHER WORK REQUIRED TO KEEP THE PLANTS IN A HEALTHY CONDITION.

22. MOW GRASS AREAS AT REGULAR INTERVALS. THE FIRST MOWING OF THE GROWING SEASON THREE INCHES (3") MOVING SHALL BE PERFORMED ONLY WHEN GRASS IS DRY. MOWER BLADE SHALL BE SET TO REMOVE NO MORE THAN ONE THIRD (1/3) OF THE GRASS LENGTH, WHEN THE AMOUNT OF GRASS IS HEAVY, IT SHALL BE CLIPPED TO PREVENT DESTRUCTION OF THE UNDERLYING TURF. MOW GRASS AREAS IN SUCH A MANNER AS TO PREVENT CLIPPING FROM BLOWING ON PAVED AREAS, AND PROVIDE A CLEARUP AFTER MOWING. SHALL INCLUDE SWEEPING OR BLOWING OF PAVED AREAS AND SIDEWALKS TO CLEAR THEM FROM MOWING DEBRIS.

23. GRASSSED AREAS DAMAGED DURING THE PROCESS OF THE WORK SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR, WHO SHALL RESTORE THE DISTURBED AREAS TO A CONDITION SATISFACTORY TO THE PROJECT LANDSCAPE DESIGNER, MUNICIPAL OFFICIAL OR OWNER/OWNER'S REPRESENTATIVE. THIS MAY INCLUDE FILLING TO GRADE, FERTILIZING, SEEDING, AND MULCHING.

24. SHOULD THE OWNER REQUIRE MAINTENANCE BEYOND THE STANDARD 90-DAY MAINTENANCE PERIOD, A SEPARATE CONTRACT SHALL BE ESTABLISHED.

25. LANDSCAPE CONTRACTOR SHALL WATER NEW PLANTINGS FROM TIME OF INSTALL THROUGHOUT REQUIRED 90-DAY MAINTENANCE PERIOD. WATERING SHALL BE ESTABLISHED, IF AVAILABLE AT THE PROJECT LOCATION.

26. THE LANDSCAPE CONTRACTOR SHALL FURNISH IT BY MEANS OR A WATERING TRUCK OR OTHER ACCEPTABLE METHOD.

27. THE QUANTITY OF WATER APPLIED AT ONE TIME SHALL BE SUFFICIENT TO PENETRATE THE SOIL TO A MINIMUM OF EIGHT INCHES (8") IN SHRUB BEDS AND SIX INCHES (6") IN TURF AREAS AT A RATE WHICH WILL PREVENT SATURATION OF THE SOIL.

28. IF AN AUTOMATIC IRRIGATION SYSTEM HAS BEEN INSTALLED, IT CAN BE USED FOR WATERING PLANT MATERIAL, HOWEVER, FAILURE OF THE SYSTEM DOES NOT ELIMINATE THE LANDSCAPE CONTRACTOR'S RESPONSIBILITY FOR PLANT HEALTH AND ESTABLISHMENT.

1. THE LANDSCAPE CONTRACTOR SHALL GUARANTEE ALL PLANT MATERIAL FOR A PERIOD OF ONE YEAR (1 YR) FROM APPROVAL OF LANDSCAPE INSTALLATION BY THE PROJECT LANDSCAPE DESIGNER, MUNICIPAL OFFICIAL, OR OWNER/OWNER'S REPRESENTATIVE.
2. THE LANDSCAPE CONTRACTOR SHALL REMOVE AND REPLACE DYING, DEAD, OR DEFECTIVE PLANT MATERIAL AT HIS EXPENSE. THE LANDSCAPE CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR ANY DAMAGES CAUSED BY HIS COMPANY'S OPERATIONS.
3. ALL REPLACEMENT PLANTS SHALL BE OF THE SAME SPECIES AND SIZE AS SPECIFIED ON THE APPROVED OR FINAL PLANT LIST. REPLACEMENTS RESULTING FROM REMOVAL, LOSS, OR DAMAGE DUE TO OCCUPANCY OF THE PROJECT IN ANY PART, INCLUDING BUT NOT LIMITED TO, THE PROJECT SITE, SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE. ANY LOSSES DUE TO CURTAILMENT OF WATER BY LOCAL AUTHORITIES SHALL BE APPROVED AND PAID FOR BY THE OWNER.
4. THE CONTRACTOR SHALL INSTRUCT THE OWNER AS TO THE PROPER CARE AND MAINTENANCE OF ALL PLANTINGS.

1. SEED MIXTURE SHALL BE FRESH LEGUM, WORN CROP SEED. SOD SHALL BE STRONGLY ROOTED, UNIFORM IN THICKNESS, AND FREE OF WEEDS, DISEASE, AND PESTS.
2. SEED OR SOD SHALL BE PURCHASED FROM A RECOGNIZED DISTRIBUTOR AND SHALL BE COMPOSED OF THE MIX OR BLEND WITHIN THE PROVIDED "SEED SPECIFICATION" OR "SOD SPECIFICATION".
3. REFERENCE LANDSCAPE PLAN FOR AREAS TO BE SEED OR LAID WITH SOD.
4. SEEDING SHALL NOT BE ATTEMPTED IN WINDY WEATHER. IF THE SEASON OF THE PROJECT COMPLETION PROHIBITS PERMANENT STABILIZATION, TEMPORARY STABILIZATION SHALL BE PROVIDED IN ACCORDANCE WITH THE "TEMPORARY SEEDING SPECIFICATION."
5. PROTECT NEW LAWN AREAS AGAINST TRESPASSING WHILE THE SEED IS GERMINATING. FURNISH AND INSTALL FENCES, SIGNS, BARRIERS OR ANY OTHER NECESSARY TEMPORARY PROTECTIVE DEVICES. DAMAGE RESULTING FROM TRESPASS, EROSION, WASHING OR ANY OTHER CAUSE SHALL BE REPAIRABLE BY THE LANDSCAPE CONTRACTOR AT HIS EXPENSE. REMOVE ALL FENCES, SIGNS, BARRIERS OR OTHER TEMPORARY PROTECTIVE DEVICES ONCE LAWN HAS BEEN ESTABLISHED.

1. FOR THE CONTAINER-GROWN SHRUBS, USE FINGERS OR SMALL HAND TOOL TO PULL THE ROOTS OUT OF THE OUTER LAYER OF POTTING SOIL; THEN CUT OR PULL APART ANY ROOTS CIRCLING THE PERIMETER OF THE CONTAINER.
2. THOROUGHLY SOAK THE SHRUB ROOT BALL AND ADJACENT PREPARED SOIL SEVERAL TIMES DURING THE FIRST MONTH AFTER PLANTING AND REGULARLY THROUGHOUT THE FOLLOWING TWO SUMMERS.
 - * MODIFY HEAVY CLAY OR SILT SOILS (MORE THAN 40% CLAY OR SILT) BY ADDING COMPOSTED PINE BARK (UP TO 30% BY VOLUME) OR GYPSUM
 - * MODIFY EXTREMELY SANDY SOILS (MORE THAN 85% SAND) BY ADDING ORGANIC MATTER AND/OR DRY, SHREDED CLAY LOAM UP TO 30% OF THE TOTAL



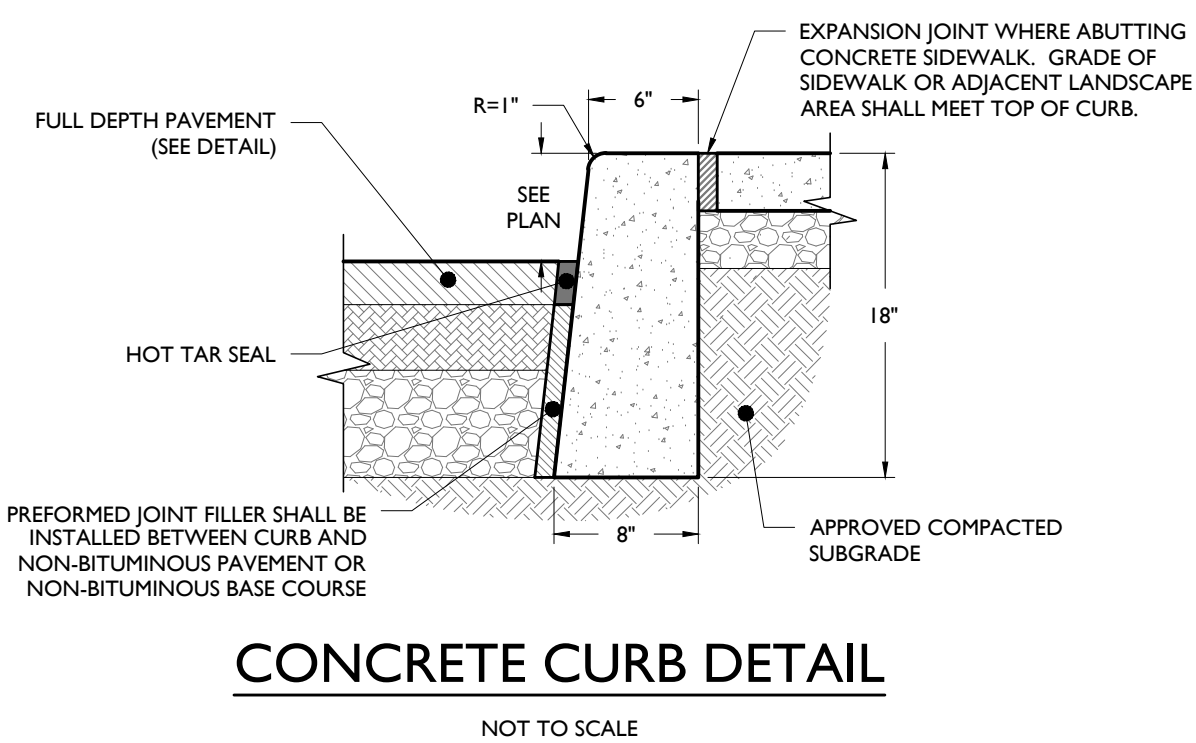
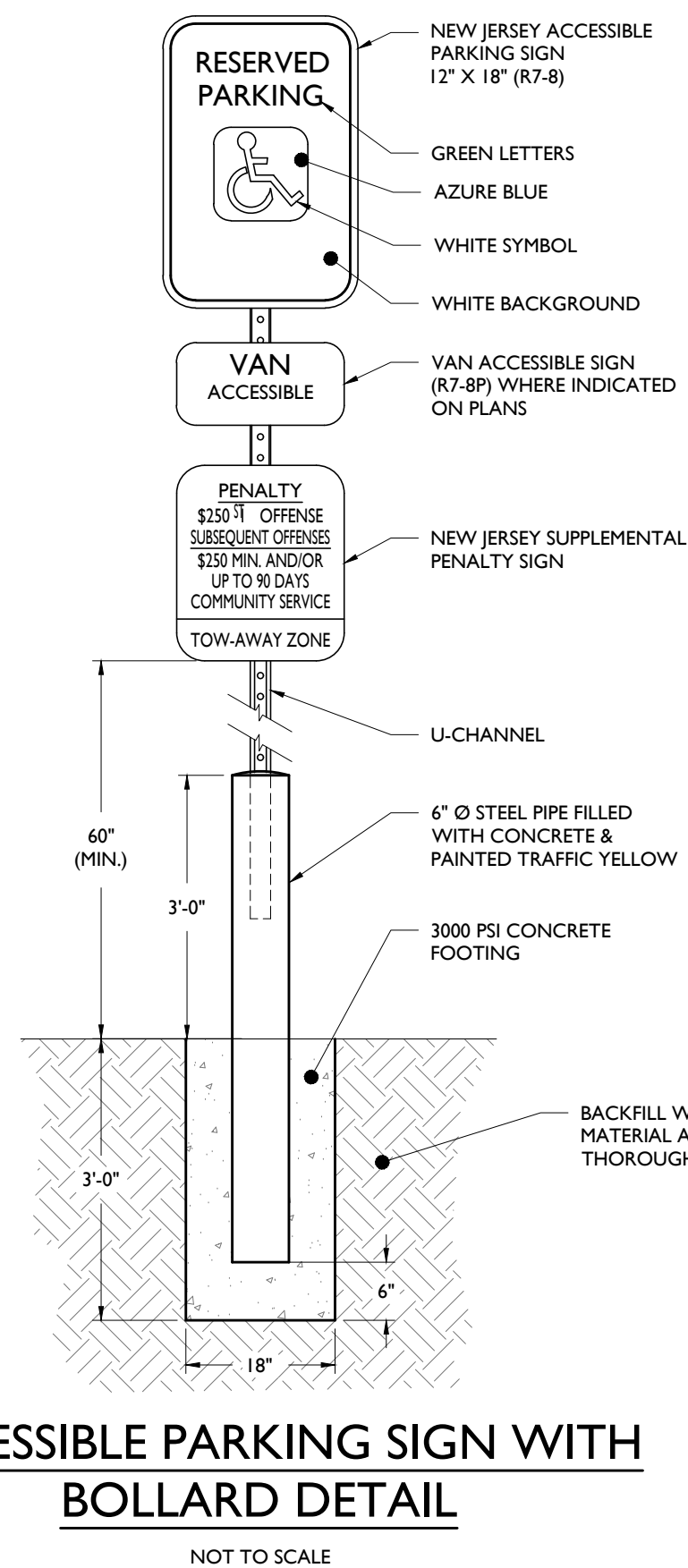
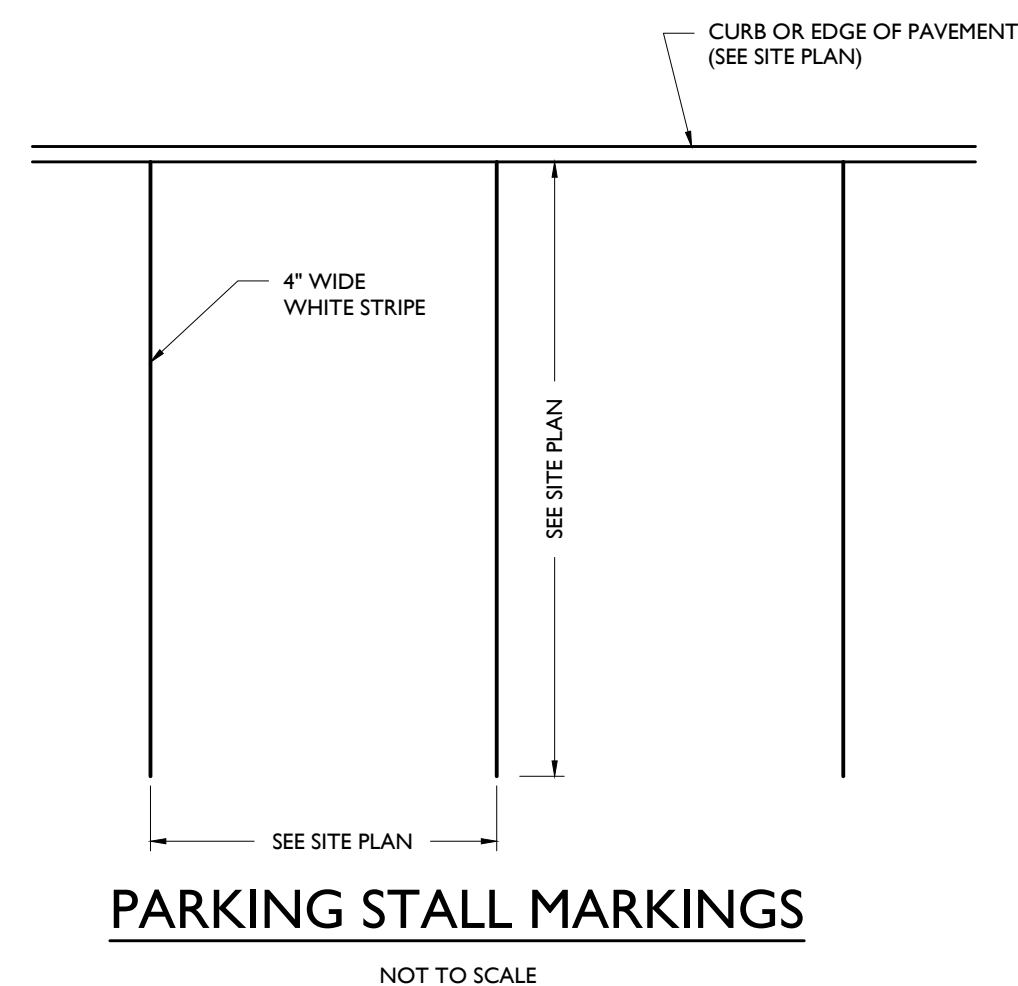
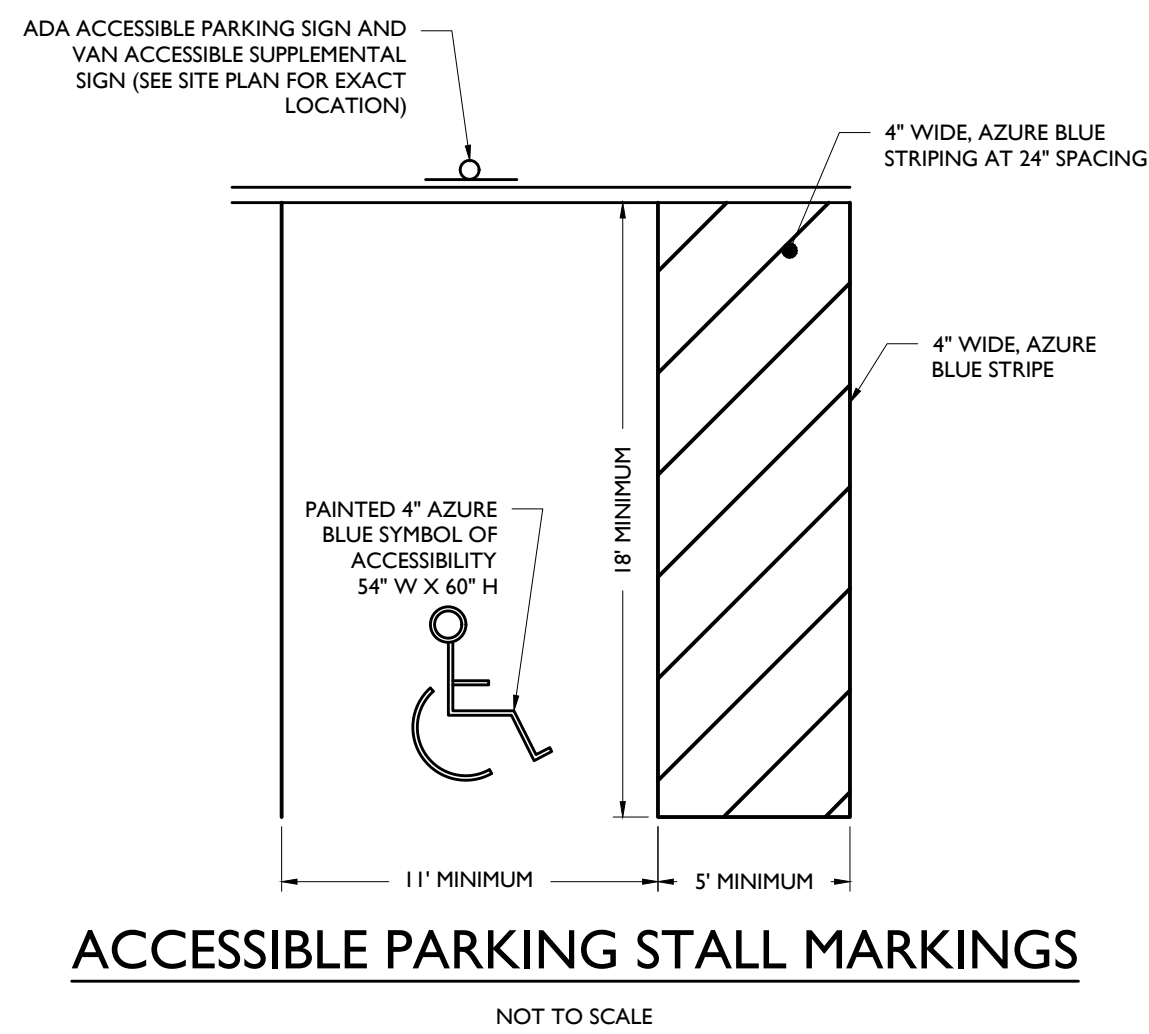
NOT TO SCALE

1. THOROUGHLY SOAK THE GROUND COVER ROOT BALL AND ADJACENT PREPARED SOIL SEVERAL TIMES DURING THE FIRST MONTH AFTER PLANTING AND REGULARLY THROUGHOUT THE FOLLOWING TWO SUMMERS.
2. SOIL AMENDMENTS:
 - MODIFY HEAVY CLAY OR SILT SOILS (MORE THAN 40% CLAY OR SILT) BY ADDING COMPOSTED PINE BARK (UP TO 30% BY VOLUME) OR GYPSUM
 - MODIFY EXTREMELY SANDY SOILS (MORE THAN 85% SAND) BY ADDING ORGANIC MATTER AND/OR DRY, SHREDDED CHAY LOAM UP TO 30% OF THE TOTAL MIX
3. ALL GROUND COVER AREAS SHALL BE TREATED WITH A PRE-EMERGENT PER MANUFACTURER'S SPECIFICATIONS

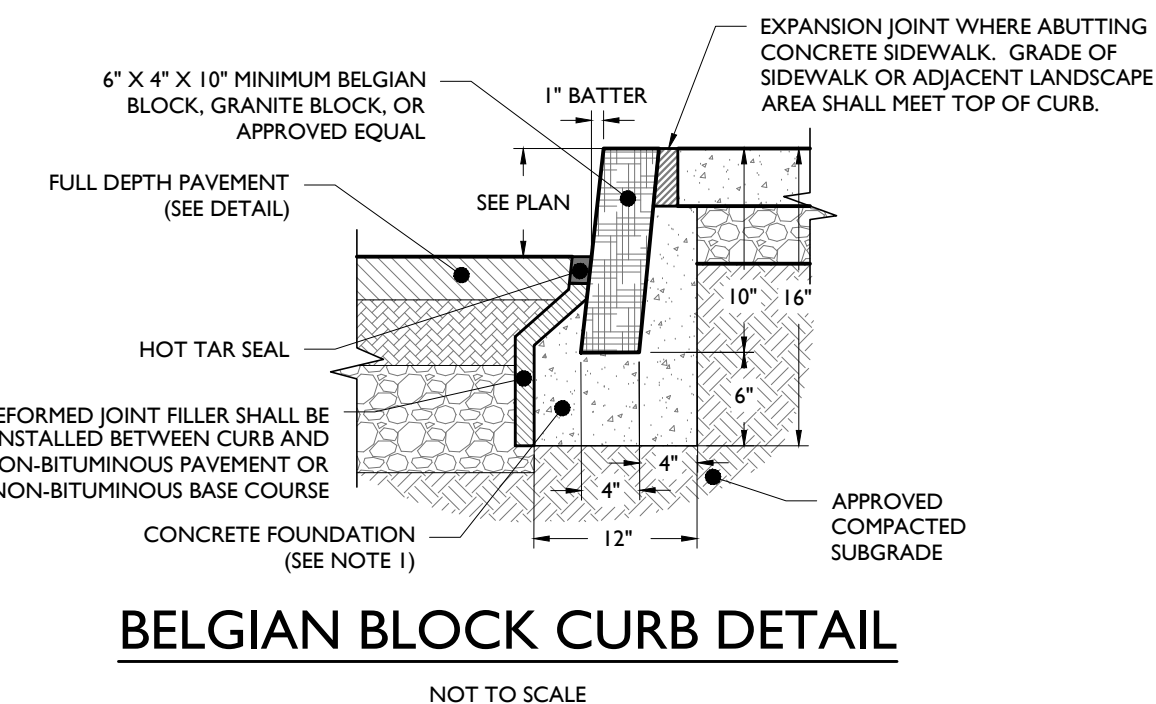


NOT TO SCALE

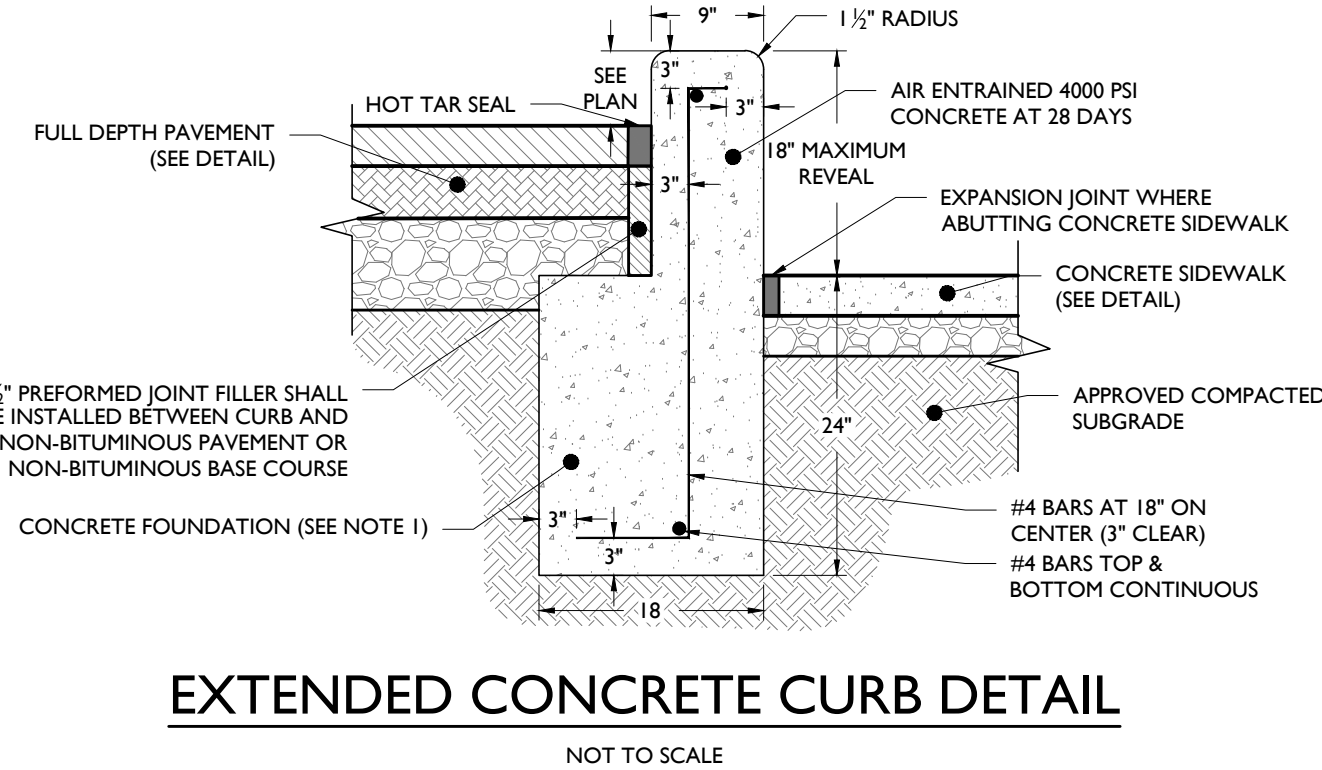
4



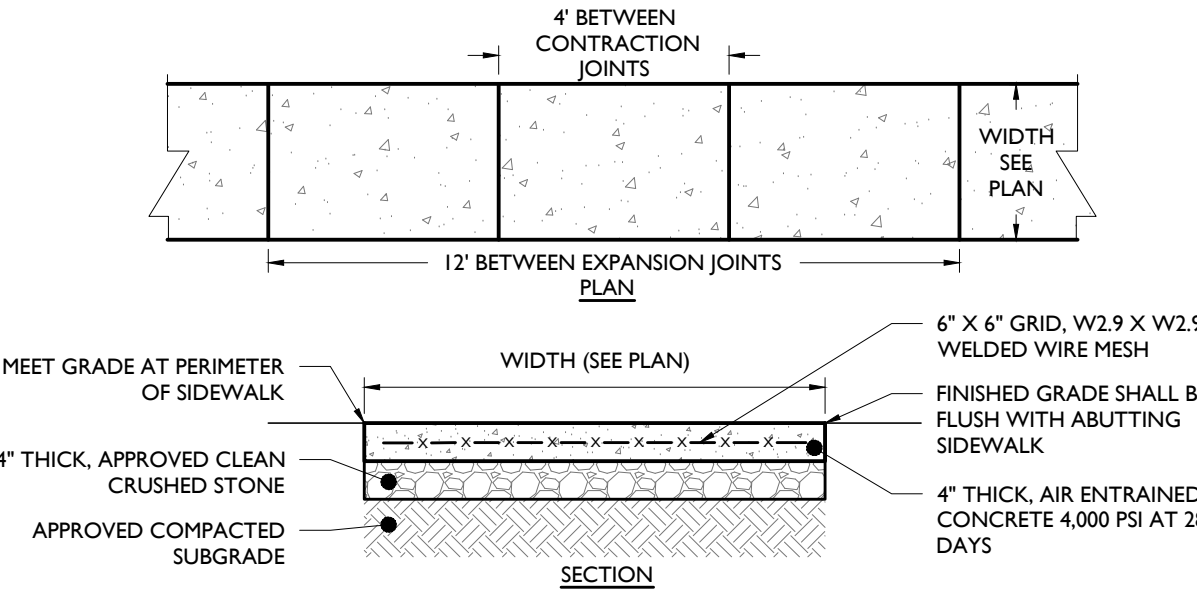
- NOTES:
1. CONCRETE SHALL BE 3500 PSI AT 28 DAYS, AIR-ENTRAINED.
 2. TRANSVERSE EXPANSION JOINTS SHALL BE PROVIDED AT 20 FOOT INTERVALS WITH PRE-MOLDED, BITUMINOUS JOINT FILLER, RECESSED 1/4" FROM SURFACE.
 3. HALF DEPTH CONTRACTION JOINTS SHALL BE PROVIDED AT 10 FOOT INTERVALS.
 4. 18" CURB DEPTH SHALL BE MAINTAINED AT DEPRESSED OR FLUSH CURBED AREAS.



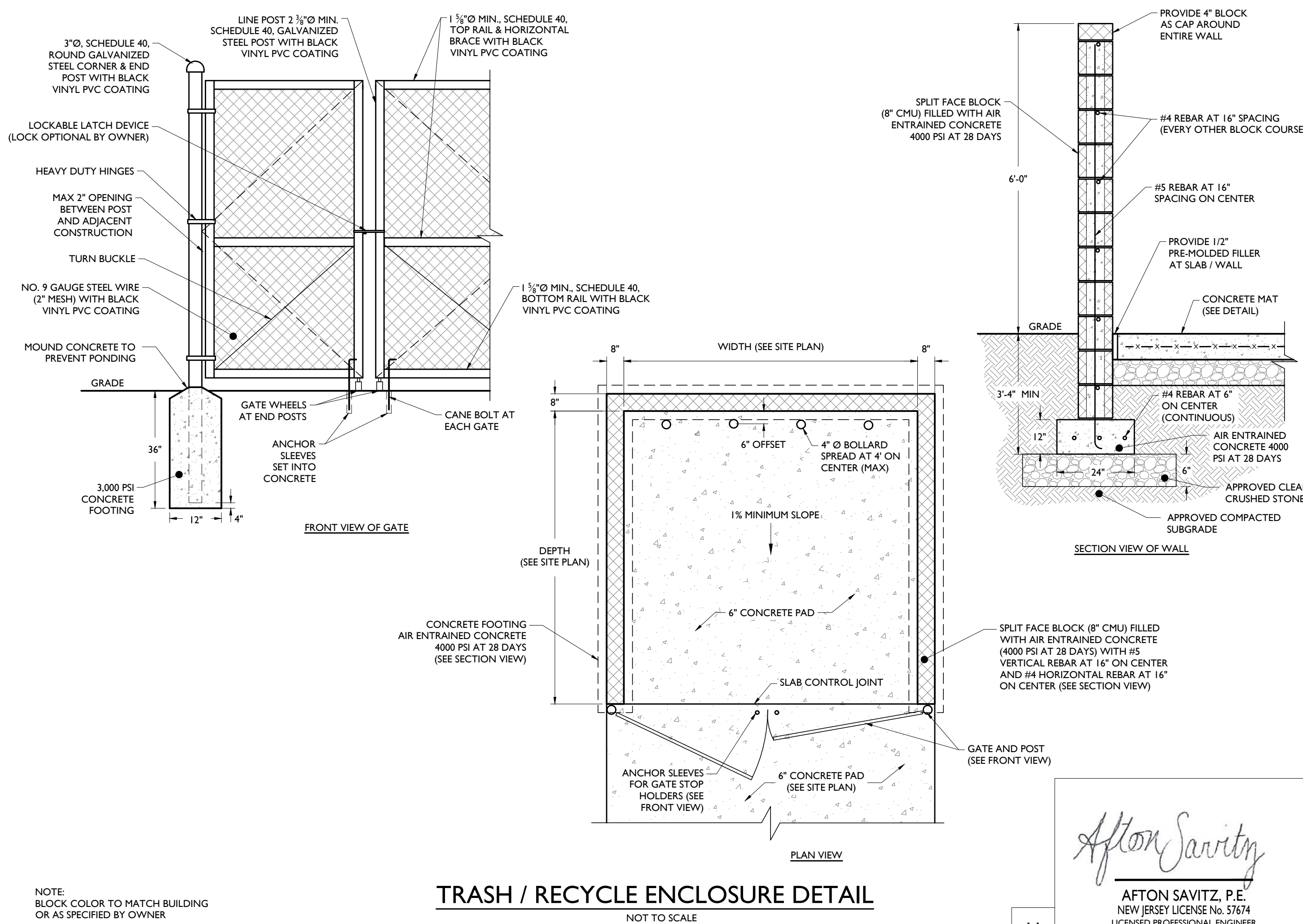
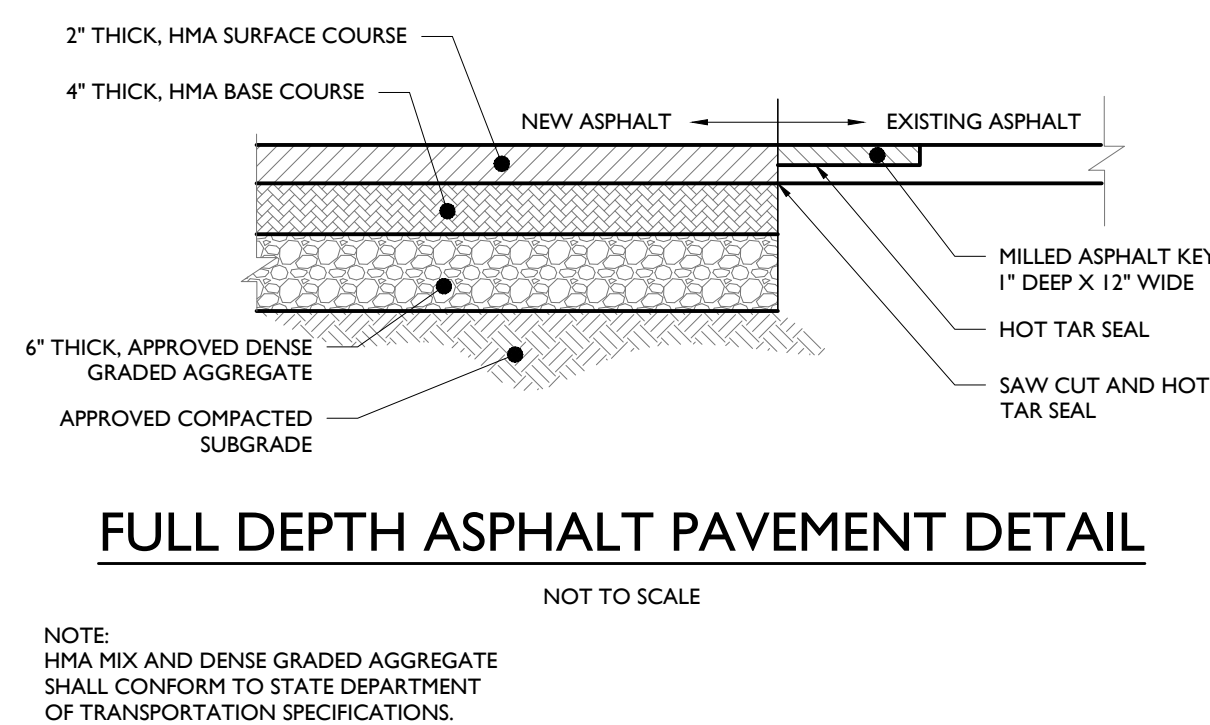
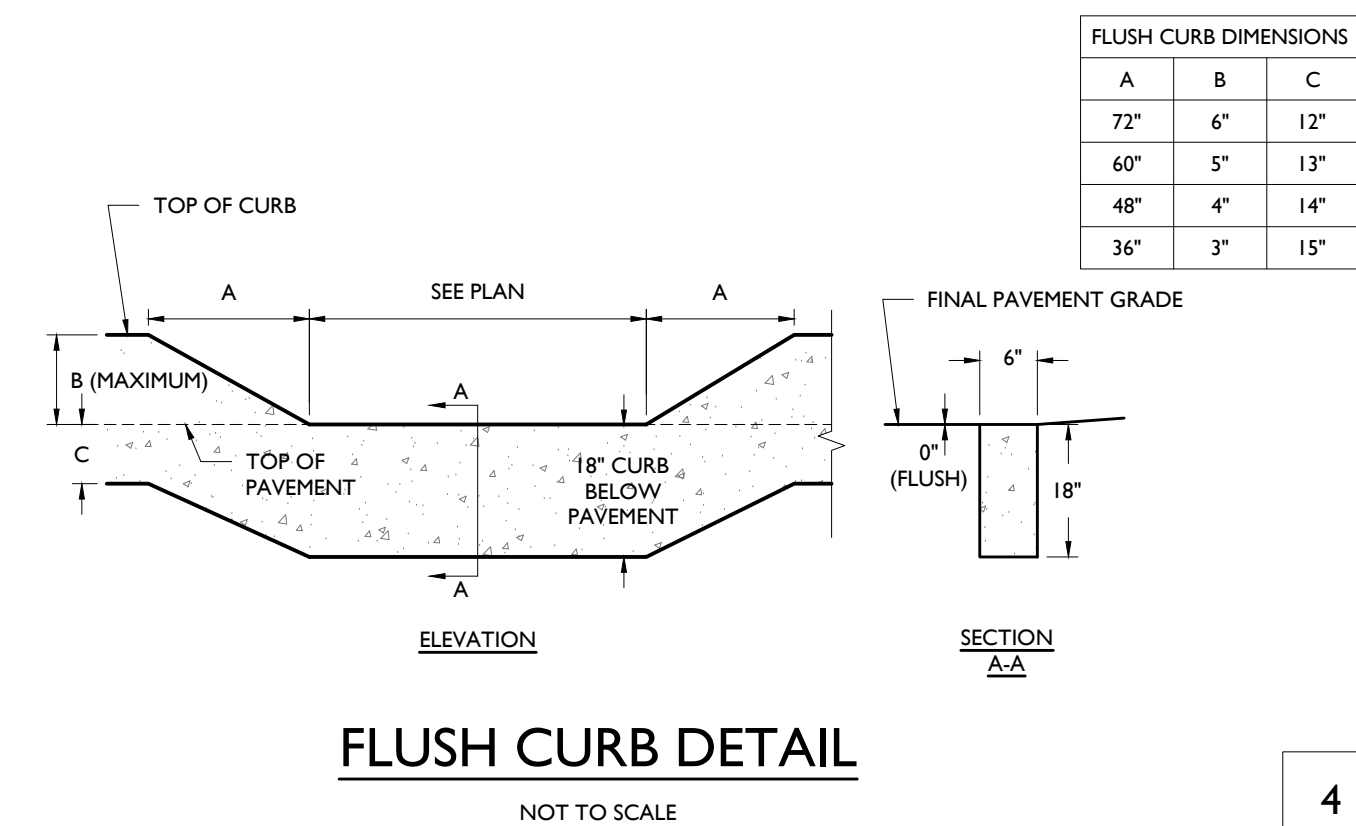
- NOTES:
1. CONCRETE SHALL BE 3500 PSI AT 28 DAYS, AIR-ENTRAINED.
 2. $\frac{1}{2}$ " EXPANSION JOINTS WITH WATER SEAL SHALL BE PROVIDED AT 50 FOOT INTERVALS WITH PRE-MOLDED, BITUMINOUS JOINT FILLER, RECESSED $\frac{1}{4}$ " FROM SURFACE. LONGITUDINAL REBAR TO BE CUT AT EXPANSION JOINTS.
 3. 1" DEEP AND $\frac{1}{2}$ " WIDE TOOLED CONTRACTION JOINTS SHALL BE PROVIDED AT MID-POINT BETWEEN EXPANSION JOINTS, OR 30 FOOT MAX.
 4. 16" CURB DEPTH SHALL BE MAINTAINED AT DEPRESSED OR FLUSH CURBED AREAS.



- NOTES:
1. CONCRETE SHALL BE 4000 PSI AT 28 DAYS, AIR-ENTRAINED.
 2. $\frac{1}{2}$ " EXPANSION JOINTS WITH WATER SEAL SHALL BE PROVIDED AT 50 FOOT INTERVALS WITH PRE-MOLDED, BITUMINOUS JOINT FILLER, RECESSED $\frac{1}{4}$ " FROM SURFACE. LONGITUDINAL REBAR TO BE CUT AT EXPANSION JOINTS.
 3. 1" DEEP AND $\frac{1}{2}$ " WIDE TOOLED CONTRACTION JOINTS SHALL BE PROVIDED AT MID-POINT BETWEEN EXPANSION JOINTS, OR 30 FOOT MAX.



- NOTES:
1. MAXIMUM CROSS SLOPE SHALL BE $\frac{1}{4}$ " PER FOOT.
 2. $\frac{1}{2}$ " EXPANSION JOINTS SHALL BE PROVIDED AT 12' INTERVALS WITH PRE-MOLDED, BITUMINOUS JOINT FILLER, RECESSED $\frac{1}{4}$ " FROM THE SURFACE.
 3. 1" DEEP BY $\frac{1}{4}$ " WIDE, TOOLED CONTRACTION JOINTS SHALL BE PROVIDED AT 4' INTERVALS.
 4. EXPANSION JOIN SHALL BE PROVIDED WHERE ADJACENT TO A BUILDING.



ISSUE	DATE	BY	DESCRIPTION
06	01/27/2023	MAGR	FOR MUNICIPAL RESUBMISSION
05	10/04/2022	MAGR	FOR MUNICIPAL RESUBMISSION
04	09/01/2022	MAGR	FOR MUNICIPAL RESUBMISSION
03	08/04/2022	MAGR	FOR MUNICIPAL RESUBMISSION
02	01/07/2022	NRK	FOR MUNICIPAL RESUBMISSION
01	09/24/2021	MAGR	FOR MUNICIPAL SUBMISSION

NOT APPROVED FOR CONSTRUCTION



STONEFIELD
engineering & design

Ithaca, NY • New York, NY • Boston, MA
 Princeton, NJ • Tampa, FL • Detroit, MI
www.stonefieldeng.com

Headquarters: 92 Park Avenue, Rutherford, NJ 07070
Phone 201.340.4468 • Fax 201.340.4472

PRELIMINARY & FINAL MAJOR SITE PLAN

**M. VEGA INVESTMENTS LLC
PROPOSED BUILDING ADDITION &
SITE IMPROVEMENTS**

**BLOCK 134.02, LOTS 75.03, 79 & 81
66 FRANKLIN AVENUE
TOWNSHIP OF WEST ORANGE
ESSEX COUNTY, NEW JERSEY**


JOSHUA H. KLINE, P.E.
 NEW JERSEY LICENSE No. 54347
 LICENSED PROFESSIONAL ENGINEER

STONEFIELD
engineering & design

SCALE: AS SHOWN	PROJECT ID: RUT-210050
-----------------	------------------------

TITLE:

CONSTRUCTION DETAILS

DRAWING:

C-10



- NOT TO SCALE



NOT APPROVED FOR CONSTRUCTION

Headquarters: 92 Park Avenue, Rutherford, NJ 07070
Phone 201.340.4468 · Fax 201.340.4472

**BLOCK 134.02, LOTS 75.03, 79 & 81
66 FRANKLIN AVENUE
TOWNSHIP OF WEST ORANGE
ESSEX COUNTY, NEW JERSEY**

C-11

AFTON SAVITZ, P.E.
NEW JERSEY LICENSE No. 57674
LICENSED PROFESSIONAL ENGINEER

Technical Specifications

Typical Order Example

1MRM LED 36L SIL STA UVW DIM 50 70CRI ALSCSD4 BRZ IL

Luminaire Profile	Light Source	Lumen Package	Light Output	Distribution	Orientation	Yolage	Driver
MRM - Universal	LED - 7,000 lms 16,400 lms 24,000 lms 36,000 lms 48,000 lms 60,000 lms 72,000 lms	BL - Black BL - Black BL - Black BL - Black BL - Black BL - Black BL - Black	2 - Type 2 3 - Type 3 SW - Type 5 Wide PT - Forward Throw PA - Forward Throw Automotive AP - Automotive Mechanisms	4 - 4-Point 5 - 5-Point 6 - 6-Point 7 - 7-Point 8 - 8-Point 9 - 9-Point 10 - 10-Point 11 - 11-Point 12 - 12-Point 13 - 13-Point 14 - 14-Point 15 - 15-Point 16 - 16-Point 17 - 17-Point 18 - 18-Point 19 - 19-Point 20 - 20-Point 21 - 21-Point 22 - 22-Point 23 - 23-Point 24 - 24-Point 25 - 25-Point 26 - 26-Point 27 - 27-Point 28 - 28-Point 29 - 29-Point 30 - 30-Point 31 - 31-Point 32 - 32-Point 33 - 33-Point 34 - 34-Point 35 - 35-Point 36 - 36-Point 37 - 37-Point 38 - 38-Point 39 - 39-Point 40 - 40-Point 41 - 41-Point 42 - 42-Point 43 - 43-Point 44 - 44-Point 45 - 45-Point 46 - 46-Point 47 - 47-Point 48 - 48-Point 49 - 49-Point 50 - 50-Point 51 - 51-Point 52 - 52-Point 53 - 53-Point 54 - 54-Point 55 - 55-Point 56 - 56-Point 57 - 57-Point 58 - 58-Point 59 - 59-Point 60 - 60-Point 61 - 61-Point 62 - 62-Point 63 - 63-Point 64 - 64-Point 65 - 65-Point 66 - 66-Point 67 - 67-Point 68 - 68-Point 69 - 69-Point 70 - 70-Point 71 - 71-Point 72 - 72-Point 73 - 73-Point 74 - 74-Point 75 - 75-Point 76 - 76-Point 77 - 77-Point 78 - 78-Point 79 - 79-Point 80 - 80-Point 81 - 81-Point 82 - 82-Point 83 - 83-Point 84 - 84-Point 85 - 85-Point 86 - 86-Point 87 - 87-Point 88 - 88-Point 89 - 89-Point 90 - 90-Point 91 - 91-Point 92 - 92-Point 93 - 93-Point 94 - 94-Point 95 - 95-Point 96 - 96-Point 97 - 97-Point 98 - 98-Point 99 - 99-Point 100 - 100-Point 101 - 101-Point 102 - 102-Point 103 - 103-Point 104 - 104-Point 105 - 105-Point 106 - 106-Point 107 - 107-Point 108 - 108-Point 109 - 109-Point 110 - 110-Point 111 - 111-Point 112 - 112-Point 113 - 113-Point 114 - 114-Point 115 - 115-Point 116 - 116-Point 117 - 117-Point 118 - 118-Point 119 - 119-Point 120 - 120-Point 121 - 121-Point 122 - 122-Point 123 - 123-Point 124 - 124-Point 125 - 125-Point 126 - 126-Point 127 - 127-Point 128 - 128-Point 129 - 129-Point 130 - 130-Point 131 - 131-Point 132 - 132-Point 133 - 133-Point 134 - 134-Point 135 - 135-Point 136 - 136-Point 137 - 137-Point 138 - 138-Point 139 - 139-Point 140 - 140-Point 141 - 141-Point 142 - 142-Point 143 - 143-Point 144 - 144-Point 145 - 145-Point 146 - 146-Point 147 - 147-Point 148 - 148-Point 149 - 149-Point 150 - 150-Point 151 - 151-Point 152 - 152-Point 153 - 153-Point 154 - 154-Point 155 - 155-Point 156 - 156-Point 157 - 157-Point 158 - 158-Point 159 - 159-Point 160 - 160-Point 161 - 161-Point 162 - 162-Point 163 - 163-Point 164 - 164-Point 165 - 165-Point 166 - 166-Point 167 - 167-Point 168 - 168-Point 169 - 169-Point 170 - 170-Point 171 - 171-Point 172			

Type:

Mirada Medium Outdoor LED Area Light

[Back to Quick Links](#)

PHOTOMETRICS

Luminaire photometry has been conducted by a NVLAP accredited testing laboratory with IESNA LM-79-08. As specified by IESNA LM-79-08 the entire luminaire is tested as the source resulting in a luminaire efficiency of 100%.

See <https://www.lsiincorp.com/product/mirada-medium/> for detailed photometric data.

MRM-LED-30L-SIL-2-40-70CRI

LUMINAIRE DATA

Type 1 Description	4000 Kelvin, 70 CRI
Delivered Lumens	32,416
Watts	292
Efficiency	142
E17 Type	Type IV - Short
BULB Rating	B4-U10-G4

Zonal Lumen Summary

Zone	Lumens	%Luminaire
Low (2'-0"0'')	4754	15%
Medium (2'-0"0" - 2'-6"0"')	10811	33%
High (2'-6"0" - 3'-0"0"')	7514	23%
Very High (3'-0"0" - 3'-6"0"')	235	1%
Uplight (3'-0"0" - 18'0"')	0	0%
Total Flux	12414	100%

ISO FOOTCANDLE

POLAR CURVE

25' Mounting Height/ 25' Grid Spacing

■ 0 FC ■ 2 FC ■ 1 FC ■ 0.5 FC

MRM-LED-30L-SIL-3-40-70CRI

LUMINAIRE DATA

Type 1 Description	4000 Kelvin, 70 CRI
Delivered Lumens	32,455
Watts	292
Efficiency	142
E17 Type	Type IV - Short
BULB Rating	B5-U10-G4

Zonal Lumen Summary

Zone	Lumens	%Luminaire
Low (2'-0"0'')	2385	10%
Medium (2'-0"0" - 2'-6"0"')	12428	39%
High (2'-6"0" - 3'-0"0"')	12428	39%
Very High (3'-0"0" - 3'-6"0"')	591	2%
Uplight (3'-0"0" - 18'0"')	0	0%
Total Flux	25934	100%

ISO FOOTCANDLE

POLAR CURVE

25' Mounting Height/ 25' Grid Spacing

■ 0 FC ■ 2 FC ■ 1 FC ■ 0.5 FC

MRM-LED-30L-SIL-F1-40-70CRI

LUMINAIRE DATA

Type 1 Description	4000 Kelvin, 70 CRI
Delivered Lumens	32,424
Watts	292
Efficiency	140
E17 Type	Type IV - Short
BULB Rating	B5-U10-G4

Zonal Lumen Summary

Zone	Lumens	%Luminaire
Low (2'-0"0'')	3952	12%
Medium (2'-0"0" - 2'-6"0"')	17058	48%
High (2'-6"0" - 3'-0"0"')	12378	38%
Very High (3'-0"0" - 3'-6"0"')	189	2%
Uplight (3'-0"0" - 18'0"')	0	0%
Total Flux	24244	100%

ISO FOOTCANDLE

POLAR CURVE

20' Mounting Height/ 15' Grid Spacing

■ 0 FC ■ 10 FC ■ 5 FC ■ 2 FC

LSI Industries Inc. 10909 Alliance Rd. Cincinnati, OH 45242 • www.lsiincorp.com
(513) 372-3200 • ©2020 LSI Industries Inc. All Rights Reserved. Specifications subject to change without notice

Page 8/9 File: 06.04.21
SPEC:1346.6.16020

ORDERING GUIDE

Opulence Small Wall Mount

Type:

[Back to Quick Links](#)

TYPICAL ORDER EXAMPLE

OPS WM 8L 4F UNV 40K8 BLK ALCSB1

Profile	Mounting	Lumen Package*	Distribution	
OPS - Opulence Slim	WM - Slim Mount	8L - 8,000 Lumens BL - 8,000 Lumens RL - 8,000 Lumens UL - 10,000 Lumens ML - 14,000 Lumens	SD - Spot & Square SC - Spot & Concentrated SA - Spot & Parabolic SB - Spot & Flood ST - Spot & Flood AD - Asymmetric Diffused	
Voltage	Color Temp	Finish	Controls	Options
UNV - Universal Voltage (120-277V) WF - High Voltage (241-480V)	3000 - 3,000mK OCT - 40 CRI 3500 - 3,500mK OCT - 90 CRI 5000 - 5,000mK OCT - 90 CRI 5600 - 5,600mK OCT - 90 CRI 2700 - 2,700mK OCT - 40 CRI	URZ - Dark Bronze BLK - Black OPF - Opaline GMS - Gun Metal Gray MSI - Metallic Silver PAP - Platinum Plus WH1 - White	(Blank) - None Wireless Controls System ALCSB1 - Art-Lite Star Wireless Motion & Photo Sensor Controls (30-57 Mf) ALCSB2 - Art-Lite Star Wireless Motion & Photo Sensor Controls (30-57 Mf) Stand Alone Controls CR1P - 7 Pin Control (Remotable ACS 1/35 41 2) IRSB1T - Infrared (Remotable Motion and Photo) Sensor (30-57 Mf) IRSB1T2 - Infrared (Auto) Motion and Photo) Sensor (30-57 Mf)	(Blank) - None SB - Battery Back (PC) CWB8 - Cold Weather Battery Back-up (10°C) SPI - 5kW Surge Protection Device

Accessory Ordering Information*

CONTROLS ACCESSORIES		MOUNTING ACCESSORIES*	
Description	Order Number	Description	Order Number
Twist Lock PhotoLock (120V for use with CR1P)	125544	Wall Lumen Surface Conduit/Wiring Box	125118
Twist Lock PhotoLock (277V for use with CR1P)	125555		
Twist Lock PhotoLock (240V for use with CR1P)	125556		
Twist Lock PhotoLock (480V for use with CR1P)	125559		
PhotoLock 3 Pin Twist Lock Controller	68140		
PhotoLock 4 Pin Twist Lock Controller	68140		
Chiming Clip for use with CR1P	145552		

FOOTNOTES:

- *Control device or chime clip must be ordered separately. See Accessory Ordering Information.
- *Mount is not compatible with the US grid but can be re-wired from your preferred nation up to 400v.
- *Accessories are shipped separately and not included
- *"C" denotes finish. See Finish options.

LSI Industries Inc. 10050 Alliance Rd. Cincinnati, OH 45242 • www.lsiop.com
(513) 372-5200 • ©2021 LSI Industries Inc. All Rights Reserved. Specifications subject to change without notice.

Page 2/5 Rev. 06/23/21
SPEC1009.10022



ISO FOOTCANDLE

2022-Aug-31
Page 1/1

OPS-03L-4F-27K8-EHS.ies

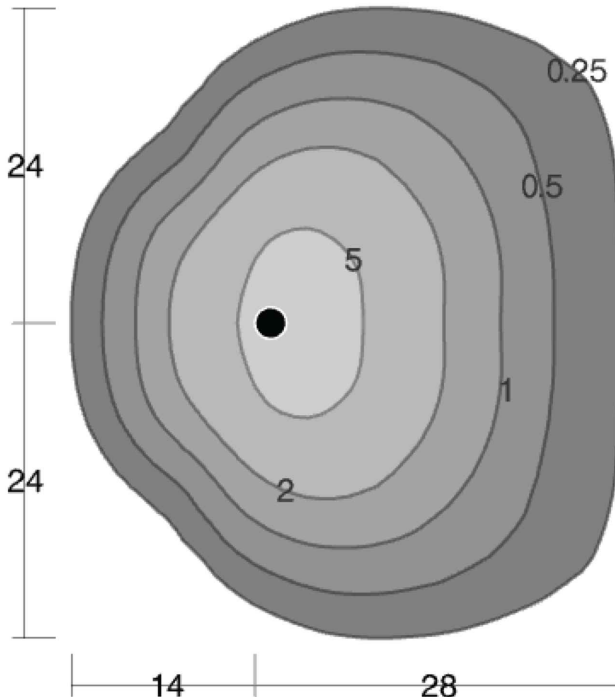
L3I INDUSTRIES, INC.
QPS/03L-4F-27K8-EHS
Single (Arm)



OPS

Luminaire Watts	22 W
Ballast/Driver Factor	1.00
Light Loss Factor	1.00
Total Proration Factor	1.00
Luminaire Lumens	2861 lms


10 ft



Min: 0.25 fc
Max/Avg: 4.3

Avg: 1.6 fc
Avg/Min: 6.4

Max: 6.9 fc
Max/Min: 28

Version 1.3.0

© 2020-2022 Lighting Analytics, Inc.

 STONEFIELD engineering & design Rutherford, NJ • New York, NY • Boston, MA Princeton, NJ • Tampa, FL • Detroit, MI www.stonefieldeng.com Headquarters: 92 Park Avenue, Rutherford, NJ 07070 Phone 201.340.4468 • Fax 201.340.4472		NOT APPROVED FOR CONSTRUCTION									
		06	01/27/2023	MAGR	FOR MUNICIPAL RESUBMISSION						
		05	10/04/2022	MAGR	FOR MUNICIPAL RESUBMISSION						
		04	09/01/2022	MAGR	FOR MUNICIPAL RESUBMISSION						
		03	08/04/2022	MAGR	FOR MUNICIPAL RESUBMISSION						
		02	01/07/2022	NRK	FOR MUNICIPAL RESUBMISSION						
		01	09/24/2021	MAGR	FOR MUNICIPAL SUBMISSION						
		ISSUE	DATE	BY	DESCRIPTION						

[illegible]

Type:

Mirada Small Wall Sconce (XWS)

[Back to Guide Lines](#)

PHOTOMETRICS

All published luminaire photometric testing performed to IESNA LM-79 standards. ISO footcandle plots below demonstrate the Mirada Wall Sconce (XWM) light patterns only. Not for total fixture output. For complete specifications and IES files, see website.

XWS-LED-SL-FTW-40

LUMINAIRE DATA

Type FTW Distribution	
Description	4000 Kelvin, 80 CRI
Delivered Lumens	5,454
Watts	39
Efficacy	140
IES Type	Type III - Very Short
BIMBA Rating	B1 L80-G3

Zonal Lumen Summary

Zone	Lumens	% Luminaire
Low (0-30°)	1151	20%
Medium (30-60°)	2688	50%
High (60-90°)	1508	28%
Very High (90-120°)	87	1%
Uplight (180-190°)	0	0%
Total Flux	5454	100%

ISO FOOTCANDLE

POLAR CURVE

10' Mounting Height/10' Grid Spacing

■ 5 FC ■ 2 FC ■ 1 FC ■ 0.5 FC

XWS-LED-SL-MT-40

LUMINAIRE DATA

Type MT Distribution	
Description	4000 Kelvin, 80 CRI
Delivered Lumens	5,658
Watts	39
Efficacy	144
IES Type	Type III - Very Short
BIMBA Rating	B1 L80-G3

Zonal Lumen Summary

Zone	Lumens	% Luminaire
Low (0-30°)	1134	22%
Medium (30-60°)	2788	54%
High (60-90°)	1194	25%
Very High (90-120°)	14	0%
Uplight (180-190°)	0	0%
Total Flux	5127	100%

ISO FOOTCANDLE

POLAR CURVE

10' Mounting Height/10' Grid Spacing

■ 5 FC ■ 2 FC ■ 1 FC ■ 0.5 FC

IES Industries Inc. 10910 Alliance Rd. Cincinnati, OH 45242 • www.iesinfo.org

(US) 372-3200 • (800) 209 IES Industries Inc. All Rights Reserved. Specifications subject to change without notice.

Page 4/78 File: 96/32/22

SPFC1074A.0000

18' MOUNTING HEIGHT

15' LIGHT POLE
4" ASSUMED POLE DIAMETER
18" FOUNDATION DIAMETER
5'-6" FOUNDATION DEPTH
#5 REINFORCING TIES AT 12" C-C
(6) #5 VERTICAL REINFORCEMENT BARS

SEE PLAN FOR NUMBER AND ORIENTATION OF FIXTURES
MOUNTING ARM BY LIGHTING MANUFACTURER
LIGHT POLE BY LIGHTING MANUFACTURER (SEE NOTE 7)
HANDHOLE WITH COVER
ANCHOR BOLTS AND BASE PLATE BY LIGHTING MANUFACTURER
ELECTRIC CONDUIT STUB UP MINIMUM 12"
HIGH-STRENGTH NON-SHRINK GROUT
1" CHAMFER
36"
36"
CURB OR EDGE OF PAVEMENT
LANDSCAPING
3 TIES AT 4" C-C
2" MIN.
3" CLEAR COVER FOR ALL REBAR
REINFORCEMENT TIES SPACING (12" OVERLAP)
LIGHTNING GROUND ROD AND ALL ELECTRICAL COMPONENTS TO COMPLY WITH NATIONAL ELECTRIC CODE

FOUNDATION DEPTH

CAST-IN-PLACE CONCRETE ROUND RIER FOUNDATION, 4,500 PSI AIR-ENTRAINED CONCRETE AT 28 DAYS
VERTICAL REINFORCEMENT BARS EQUALLY SPACED
FOUNDATION DIAMETER

COMPACTED SUITABLE BACKFILL TO 95% OPTIMUM DRY PROCTOR DENSITY IN LIFTS OF LESS THAN 9" OF UNCOMPACTED SOIL

3' CLEAR COVER FOR ALL REBAR

REINFORCEMENT TIES SPACING (12" OVERLAP)

CAST-IN-PLACE CONCRETE ROUND RIER FOUNDATION, 4,500 PSI AIR-ENTRAINED CONCRETE AT 28 DAYS

VERTICAL REINFORCEMENT BARS EQUALLY SPACED

3 TIES AT 4" C-C

2" MIN.

1" CHAMFER

ELECTRIC CONDUIT STUB UP MINIMUM 12"

HIGH-STRENGTH NON-SHRINK GROUT

ANCHOR BOLTS AND BASE PLATE BY LIGHTING MANUFACTURER

HANDHOLE WITH COVER

MOUNTING ARM BY LIGHTING MANUFACTURER (SEE NOTE 7)

SEE PLAN FOR NUMBER AND ORIENTATION OF FIXTURES

18' MOUNTING HEIGHT

15' LIGHT POLE

4" ASSUMED POLE DIAMETER

18" FOUNDATION DIAMETER

5'-6" FOUNDATION DEPTH

#5 REINFORCING TIES AT 12" C-C

(6) #5 VERTICAL REINFORCEMENT BARS

NOT TO SCALE

NOTES:

1. MINIMUM SOIL BEARING PRESSURE OF 1500 PSF, SOIL FRICTION ANGLE OF 30 DEGREES, AND SOIL DRY UNIT WEIGHT OF 120 PCF SHALL BE CONFIRMED IN THE FIELD BY A QUALIFIED PROFESSIONAL.
2. CAST-IN-PLACE CONCRETE SHALL BE CONSOLIDATED USING VIBRATOR.
3. ALL REBAR TO BE NEW GRADE 60 STEEL.

REINFORCEMENT TIES SPACING (12" OVERLAP)

3" CLEAR COVER FOR ALL REBAR

COMPACTED SUITABLE BACKFILL TO 95% OPTIMUM DRY PROCTOR DENSITY IN LIFTS OF LESS THAN 9" OF UNCOMPACTED SOIL

2" MIN.

1" CHAMFER

ELECTRIC CONDUIT STUB UP MINIMUM 12"

HIGH-STRENGTH NON-SHRINK GROUT

ANCHOR BOLTS AND BASE PLATE BY LIGHTING MANUFACTURER

HANDHOLE WITH COVER

MOUNTING ARM BY LIGHTING MANUFACTURER (SEE NOTE 7)

SEE PLAN FOR NUMBER AND ORIENTATION OF FIXTURES

18' MOUNTING HEIGHT

15' LIGHT POLE

4" ASSUMED POLE DIAMETER

18" FOUNDATION DIAMETER

5'-6" FOUNDATION DEPTH

#5 REINFORCING TIES AT 12" C-C

(6) #5 VERTICAL REINFORCEMENT BARS

NOT TO SCALE

NOTES:

1. MINIMUM SOIL BEARING PRESSURE OF 1500 PSF, SOIL FRICTION ANGLE OF 30 DEGREES, AND SOIL DRY UNIT WEIGHT OF 120 PCF SHALL BE CONFIRMED IN THE FIELD BY A QUALIFIED PROFESSIONAL.
2. CAST-IN-PLACE CONCRETE SHALL BE CONSOLIDATED USING VIBRATOR.
3. ALL REBAR TO BE NEW GRADE 60 STEEL.

REINFORCEMENT TIES SPACING (12" OVERLAP)

3" CLEAR COVER FOR ALL REBAR

COMPACTED SUITABLE BACKFILL TO 95% OPTIMUM DRY PROCTOR DENSITY IN LIFTS OF LESS THAN 9" OF UNCOMPACTED SOIL

2" MIN.

1" CHAMFER

ELECTRIC CONDUIT STUB UP MINIMUM 12"

HIGH-STRENGTH NON-SHRINK GROUT

ANCHOR BOLTS AND BASE PLATE BY LIGHTING MANUFACTURER

HANDHOLE WITH COVER

MOUNTING ARM BY LIGHTING MANUFACTURER (SEE NOTE 7)

SEE PLAN FOR NUMBER AND ORIENTATION OF FIXTURES

18' MOUNTING HEIGHT

15' LIGHT POLE

4" ASSUMED POLE DIAMETER

18" FOUNDATION DIAMETER

5'-6" FOUNDATION DEPTH

#5 REINFORCING TIES AT 12" C-C

(6) #5 VERTICAL REINFORCEMENT BARS

NOT TO SCALE

NOTES:

1. MINIMUM SOIL BEARING PRESSURE OF 1500 PSF, SOIL FRICTION ANGLE OF 30 DEGREES, AND SOIL DRY UNIT WEIGHT OF 120 PCF SHALL BE CONFIRMED IN THE FIELD BY A QUALIFIED PROFESSIONAL.
2. CAST-IN-PLACE CONCRETE SHALL BE CONSOLIDATED USING VIBRATOR.
3. ALL REBAR TO BE NEW GRADE 60 STEEL.

REINFORCEMENT TIES SPACING (12" OVERLAP)

3" CLEAR COVER FOR ALL REBAR

COMPACTED SUITABLE BACKFILL TO 95% OPTIMUM DRY PROCTOR DENSITY IN LIFTS OF LESS THAN 9" OF UNCOMPACTED SOIL

2" MIN.

1" CHAMFER

ELECTRIC CONDUIT STUB UP MINIMUM 12"

HIGH-STRENGTH NON-SHRINK GROUT

ANCHOR BOLTS AND BASE PLATE BY LIGHTING MANUFACTURER

HANDHOLE WITH COVER

MOUNTING ARM BY LIGHTING MANUFACTURER (SEE NOTE 7)

SEE PLAN FOR NUMBER AND ORIENTATION OF FIXTURES

18' MOUNTING HEIGHT

15' LIGHT POLE

4" ASSUMED POLE DIAMETER

18" FOUNDATION DIAMETER

5'-6" FOUNDATION DEPTH

#5 REINFORCING TIES AT 12" C-C

(6) #5 VERTICAL REINFORCEMENT BARS

NOT TO SCALE

NOTES:

1. MINIMUM SOIL BEARING PRESSURE OF 1500 PSF, SOIL FRICTION ANGLE OF 30 DEGREES, AND SOIL DRY UNIT WEIGHT OF 120 PCF SHALL BE CONFIRMED IN THE FIELD BY A QUALIFIED PROFESSIONAL.
2. CAST-IN-PLACE CONCRETE SHALL BE CONSOLIDATED USING VIBRATOR.
3. ALL REBAR TO BE NEW GRADE 60 STEEL.

REINFORCEMENT TIES SPACING (12" OVERLAP)

3" CLEAR COVER FOR ALL REBAR

COMPACTED SUITABLE BACKFILL TO 95% OPTIMUM DRY PROCTOR DENSITY IN LIFTS OF LESS THAN 9" OF UNCOMPACTED SOIL

2" MIN.

1" CHAMFER

ELECTRIC CONDUIT STUB UP MINIMUM 12"

HIGH-STRENGTH NON-SHRINK GROUT

ANCHOR BOLTS AND BASE PLATE BY LIGHTING MANUFACTURER

HANDHOLE WITH COVER

MOUNTING ARM BY LIGHTING MANUFACTURER (SEE NOTE 7)

SEE PLAN FOR NUMBER AND ORIENTATION OF FIXTURES

18' MOUNTING HEIGHT

15' LIGHT POLE

4" ASSUMED POLE DIAMETER

18" FOUNDATION DIAMETER

5'-6" FOUNDATION DEPTH

#5 REINFORCING TIES AT 12" C-C

(6) #5 VERTICAL REINFORCEMENT BARS

NOT TO SCALE

NOTES:

1. MINIMUM SOIL BEARING PRESSURE OF 1500 PSF, SOIL FRICTION ANGLE OF 30 DEGREES, AND SOIL DRY UNIT WEIGHT OF 120 PCF SHALL BE CONFIRMED IN THE FIELD BY A QUALIFIED PROFESSIONAL.
2. CAST-IN-PLACE CONCRETE SHALL BE CONSOLIDATED USING VIBRATOR.
3. ALL REBAR TO BE NEW GRADE 60 STEEL.

REINFORCEMENT TIES SPACING (12" OVERLAP)

3" CLEAR COVER FOR ALL REBAR

COMPACTED SUITABLE BACKFILL TO 95% OPTIMUM DRY PROCTOR DENSITY IN LIFTS OF LESS THAN 9" OF UNCOMPACTED SOIL

2" MIN.

1" CHAMFER

ELECTRIC CONDUIT STUB UP MINIMUM 12"

HIGH-STRENGTH NON-SHRINK GROUT

ANCHOR BOLTS AND BASE PLATE BY LIGHTING MANUFACTURER

HANDHOLE WITH COVER

MOUNTING ARM BY LIGHTING MANUFACTURER (SEE NOTE 7)

SEE PLAN FOR NUMBER AND ORIENTATION OF FIXTURES

18' MOUNTING HEIGHT

15' LIGHT POLE

4" ASSUMED POLE DIAMETER

18" FOUNDATION DIAMETER

5'-6" FOUNDATION DEPTH

#5 REINFORCING TIES AT 12" C-C

(6) #5 VERTICAL REINFORCEMENT BARS

NOT TO SCALE

NOTES:

1. MINIMUM SOIL BEARING PRESSURE OF 1500 PSF, SOIL FRICTION ANGLE OF 30 DEGREES, AND SOIL DRY UNIT WEIGHT OF 120 PCF SHALL BE CONFIRMED IN THE FIELD BY A QUALIFIED PROFESSIONAL.
2. CAST-IN-PLACE CONCRETE SHALL BE CONSOLIDATED USING VIBRATOR.
3. ALL REBAR TO BE NEW GRADE 60 STEEL.

REINFORCEMENT TIES SPACING (12" OVERLAP)

3" CLEAR COVER FOR ALL REBAR

COMPACTED SUITABLE BACKFILL TO 95% OPTIMUM DRY PROCTOR DENSITY IN LIFTS OF LESS THAN 9" OF UNCOMPACTED SOIL

2" MIN.

1" CHAMFER

ELECTRIC CONDUIT STUB UP MINIMUM 12"

HIGH-STRENGTH NON-SHRINK GROUT

ANCHOR BOLTS AND BASE PLATE BY LIGHTING MANUFACTURER

HANDHOLE WITH COVER

MOUNTING ARM BY LIGHTING MANUFACTURER (SEE NOTE 7)

SEE PLAN FOR NUMBER AND ORIENTATION OF FIXTURES

18' MOUNTING HEIGHT

15' LIGHT POLE

4" ASSUMED POLE DIAMETER

18" FOUNDATION DIAMETER

5'-6" FOUNDATION DEPTH

#5 REINFORCING TIES AT 12" C-C

(6) #5 VERTICAL REINFORCEMENT BARS

NOT TO SCALE

Steel Pole Mounting Bracket

1 Item quantity: Call us at (380) 456-7800

Type

ORDERING GUIDE

Back to Quick Link

TYPICAL ORDER EXAMPLE: 4BP21 B5 S07G 24 S P1P DGP

Pole Series	Mounting Method	Material	Height ¹	Mounting Configuration	Pole Finish	Options
4BP 4" x 4" Double Round Shaped Pole (No Pole Bolt)	1 <i>Insert Mount</i> - Single reduction quadrant mounting bracket	304L SS 1/2" Gal. Steel (GSP/SP01) only	17'	15 <i>Single Pole</i>	R15 <i>Black</i>	14 <i>Uncoated/Industrial</i>
4BP21 4" x 4" Double Round Shaped Pole (No Pole Bolt)	2 <i>Reduced Inlet</i> - Single reduction quadrant mounting bracket	304L SS 1/2" Gal. Steel (GSP/SP01) only	17'	10 <i>Double</i>	R10 <i>Black</i>	3 <i>Single</i>
4BP21 4" x 4" Double Round Shaped Pole (No Pole Bolt)	3 <i>Reduced Inlet</i> - Single reduction quadrant mounting bracket	304L SS 1/2" Gal. Steel (GSP/SP01) only	17'	10 <i>Double</i>	R10 <i>Black</i>	4 <i>Industrial</i>
4BP21 4" x 4" Double Round Shaped Pole (No Pole Bolt)	4 <i>Reduced Inlet</i> - Single reduction quadrant mounting bracket	304L SS 1/2" Gal. Steel (GSP/SP01) only	17'	10 <i>Double</i>	R10 <i>Black</i>	5 <i>Industrial</i>
4BP21 4" x 4" Double Round Shaped Pole (No Pole Bolt)	5 <i>Reduced Inlet</i> - Single reduction quadrant mounting bracket	304L SS 1/2" Gal. Steel (GSP/SP01) only	17'	10 <i>Double</i>	R10 <i>Black</i>	6 <i>Industrial</i>
4BP21 4" x 4" Double Round Shaped Pole (No Pole Bolt)	6 <i>Reduced Inlet</i> - Single reduction quadrant mounting bracket	304L SS 1/2" Gal. Steel (GSP/SP01) only	17'	10 <i>Double</i>	R10 <i>Black</i>	7 <i>Industrial</i>
4BP21 4" x 4" Double Round Shaped Pole (No Pole Bolt)	7 <i>Reduced Inlet</i> - Single reduction quadrant mounting bracket	304L SS 1/2" Gal. Steel (GSP/SP01) only	17'	10 <i>Double</i>	R10 <i>Black</i>	8 <i>Industrial</i>
4BP21 4" x 4" Double Round Shaped Pole (No Pole Bolt)	8 <i>Reduced Inlet</i> - Single reduction quadrant mounting bracket	304L SS 1/2" Gal. Steel (GSP/SP01) only	17'	10 <i>Double</i>	R10 <i>Black</i>	9 <i>Industrial</i>
4BP21 4" x 4" Double Round Shaped Pole (No Pole Bolt)	9 <i>Reduced Inlet</i> - Single reduction quadrant mounting bracket	304L SS 1/2" Gal. Steel (GSP/SP01) only	17'	10 <i>Double</i>	R10 <i>Black</i>	10 <i>Industrial</i>
4BP21 4" x 4" Double Round Shaped Pole (No Pole Bolt)	10 <i>Reduced Inlet</i> - Single reduction quadrant mounting bracket	304L SS 1/2" Gal. Steel (GSP/SP01) only	17'	10 <i>Double</i>	R10 <i>Black</i>	11 <i>Industrial</i>
4BP21 4" x 4" Double Round Shaped Pole (No Pole Bolt)	11 <i>Reduced Inlet</i> - Single reduction quadrant mounting bracket	304L SS 1/2" Gal. Steel (GSP/SP01) only	17'	10 <i>Double</i>	R10 <i>Black</i>	12 <i>Industrial</i>
4BP21 4" x 4" Double Round Shaped Pole (No Pole Bolt)	12 <i>Reduced Inlet</i> - Single reduction quadrant mounting bracket	304L SS 1/2" Gal. Steel (GSP/SP01) only	17'	10 <i>Double</i>	R10 <i>Black</i>	13 <i>Industrial</i>
4BP21 4" x 4" Double Round Shaped Pole (No Pole Bolt)	13 <i>Reduced Inlet</i> - Single reduction quadrant mounting bracket	304L SS 1/2" Gal. Steel (GSP/SP01) only	17'	10 <i>Double</i>	R10 <i>Black</i>	14 <i>Industrial</i>
4BP21 4" x 4" Double Round Shaped Pole (No Pole Bolt)	14 <i>Reduced Inlet</i> - Single reduction quadrant mounting bracket	304L SS 1/2" Gal. Steel (GSP/SP01) only	17'	10 <i>Double</i>	R10 <i>Black</i>	15 <i>Industrial</i>
4BP21 4" x 4" Double Round Shaped Pole (No Pole Bolt)	15 <i>Reduced Inlet</i> - Single reduction quadrant mounting bracket	304L SS 1/2" Gal. Steel (GSP/SP01) only	17'	10 <i>Double</i>	R10 <i>Black</i>	16 <i>Industrial</i>
4BP21 4" x 4" Double Round Shaped Pole (No Pole Bolt)	16 <i>Reduced Inlet</i> - Single reduction quadrant mounting bracket	304L SS 1/2" Gal. Steel (GSP/SP01) only	17'	10 <i>Double</i>	R10 <i>Black</i>	17 <i>Industrial</i>
4BP21 4" x 4" Double Round Shaped Pole (No Pole Bolt)	17 <i>Reduced Inlet</i> - Single reduction quadrant mounting bracket	304L SS 1/2" Gal. Steel (GSP/SP01) only	17'	10 <i>Double</i>	R10 <i>Black</i>	18 <i>Industrial</i>
4BP21 4" x 4" Double Round Shaped Pole (No Pole Bolt)	18 <i>Reduced Inlet</i> - Single reduction quadrant mounting bracket	304L SS 1/2" Gal. Steel (GSP/SP01) only	17'	10 <i>Double</i>	R10 <i>Black</i>	19 <i>Industrial</i>
4BP21 4" x 4" Double Round Shaped Pole (No Pole Bolt)	19 <i>Reduced Inlet</i> - Single reduction quadrant mounting bracket	304L SS 1/2" Gal. Steel (GSP/SP01) only	17'	10 <i>Double</i>	R10 <i>Black</i>	20 <i>Industrial</i>
4BP21 4" x 4" Double Round Shaped Pole (No Pole Bolt)	20 <i>Reduced Inlet</i> - Single reduction quadrant mounting bracket	304L SS 1/2" Gal. Steel (GSP/SP01) only	17'	10 <i>Double</i>	R10 <i>Black</i>	21 <i>Industrial</i>
4BP21 4" x 4" Double Round Shaped Pole (No Pole Bolt)	21 <i>Reduced Inlet</i> - Single reduction quadrant mounting bracket	304L SS 1/2" Gal. Steel (GSP/SP01) only	17'	10 <i>Double</i>	R10 <i>Black</i>	22 <i>Industrial</i>
4BP21 4" x 4" Double Round Shaped Pole (No Pole Bolt)	22 <i>Reduced Inlet</i> - Single reduction quadrant mounting bracket	304L SS 1/2" Gal. Steel (GSP/SP01) only	17'	10 <i>Double</i>	R10 <i>Black</i>	23 <i>Industrial</i>
4BP21 4" x 4" Double Round Shaped Pole (No Pole Bolt)	23 <i>Reduced Inlet</i> - Single reduction quadrant mounting bracket	304L SS 1/2" Gal. Steel (GSP/SP01) only	17'	10 <i>Double</i>	R10 <i>Black</i>	24 <i>Industrial</i> </

PRELIMINARY & FINAL MAJOR SITE PLAN		M. VEGA INVESTMENTS LLC PROPOSED BUILDING ADDITION & SITE IMPROVEMENTS BLOCK 134.02, LOTS 75.03, 79 & 81 66 FRANKLIN AVENUE TOWNSHIP OF WEST ORANGE ESSEX COUNTY, NEW JERSEY	
			
JOSHUA H. KLINE, P.E. NEW JERSEY LICENSE No. 54347 LICENSED PROFESSIONAL ENGINEER			
		STONEFIELD engineering & design	
SCALE:	AS SHOWN	PROJECT ID:	RUT-210050
TITLE:			
CONSTRUCTION DETAILS			

LIGHT FIXTURE

SPECIFICATION

REQUIRED TO OBTAIN 80% OF DESIGN STRENGTH PRIOR TO INSTALLING LIGHT POLE.
CONCRETE SHALL HAVE A MAXIMUM SLUMP OF 4" (WITHIN 1" TOLERANCE).
POLE SHALL BE RATED FOR 10 MPH HIGHER THAN MAXIMUM WIND SPEED 33FT ABOVE GROUND FOR THE AREA BASED ON ANSI/ASCE 7-93.
POUR TO BE TERMINATED AT A FORM.
WORK SHALL CONFORM TO ACI BEST PRACTICES FOR APPROPRIATE TEMPERATURE AND WEATHER CONDITIONS.

LIGHT POLE SPECIFICATION

NOT TO SCALE

5

AFTON SAVITZ, P.E.
NEW JERSEY LICENSE No. 576
LICENSED PROFESSIONAL ENGINEER

DRAWING:

C-12