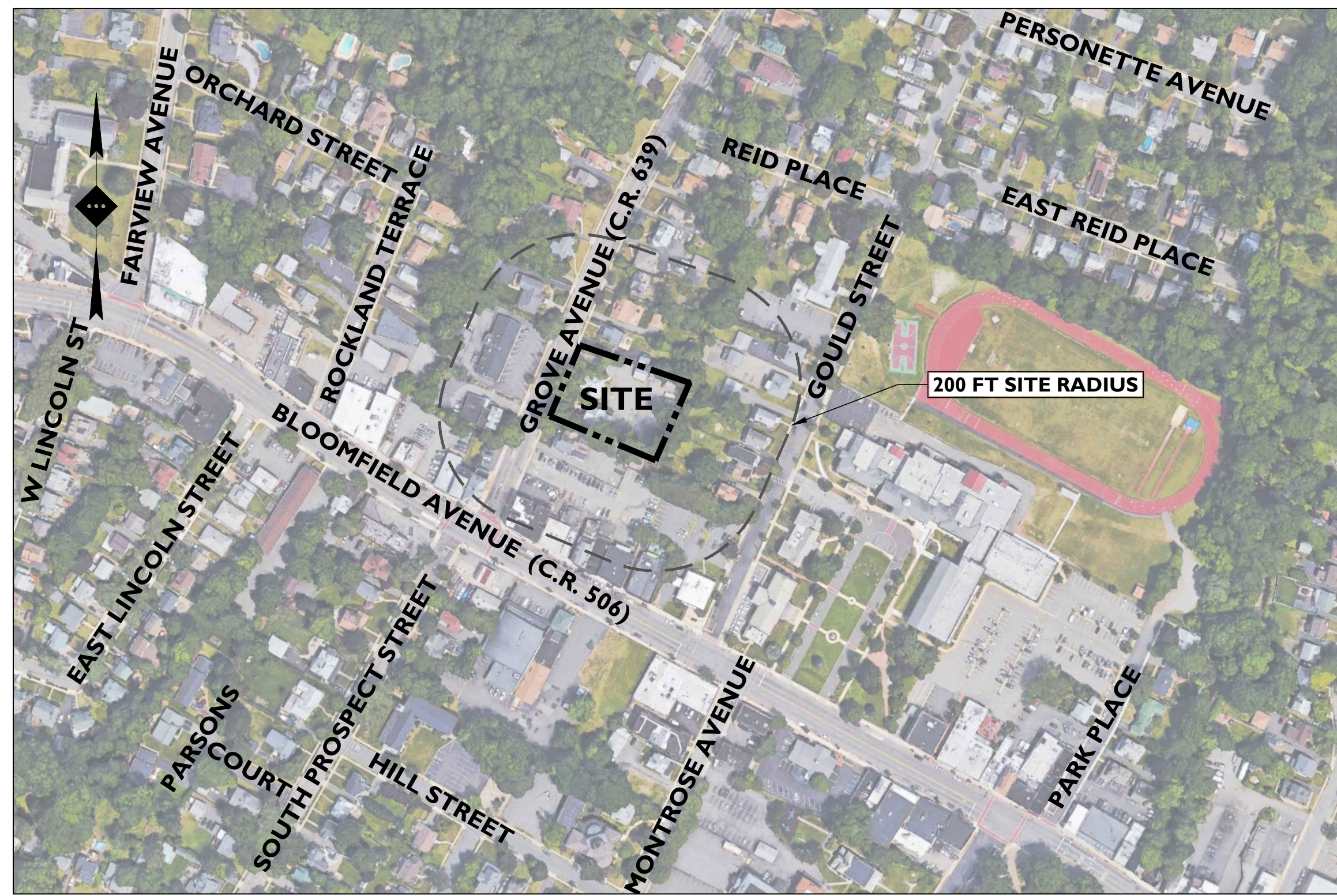


SOURCE: UNITED STATES GEOLOGICAL SURVEY QUADRANGLE MAPS, VERONA, NEW JERSEY - NEW YORK, 7.5 MINUTE SERIES, 2016.

LOCATION MAP

SCALE: 1" = 1,000±



SOURCE: GOOGLE EARTH PRO, IMAGE DATED 05/23/2018

AERIAL MAP

SCALE: 1" = 200'±

PRELIMINARY & FINAL MAJOR SITE PLAN
FOR
21 & 25 GROVE ASSOCIATES, LLC
PROPOSED RESIDENTIAL DEVELOPMENT

BLOCK 1702, LOT 22
 21 GROVE AVENUE (COUNTY ROUTE 639)
 TOWNSHIP OF VERONA, ESSEX COUNTY, NEW JERSEY

TOWNSHIP OF VERONA SIGNATURE BLOCK

APPROVED BY THE ENGINEER OF THE TOWNSHIP OF VERONA

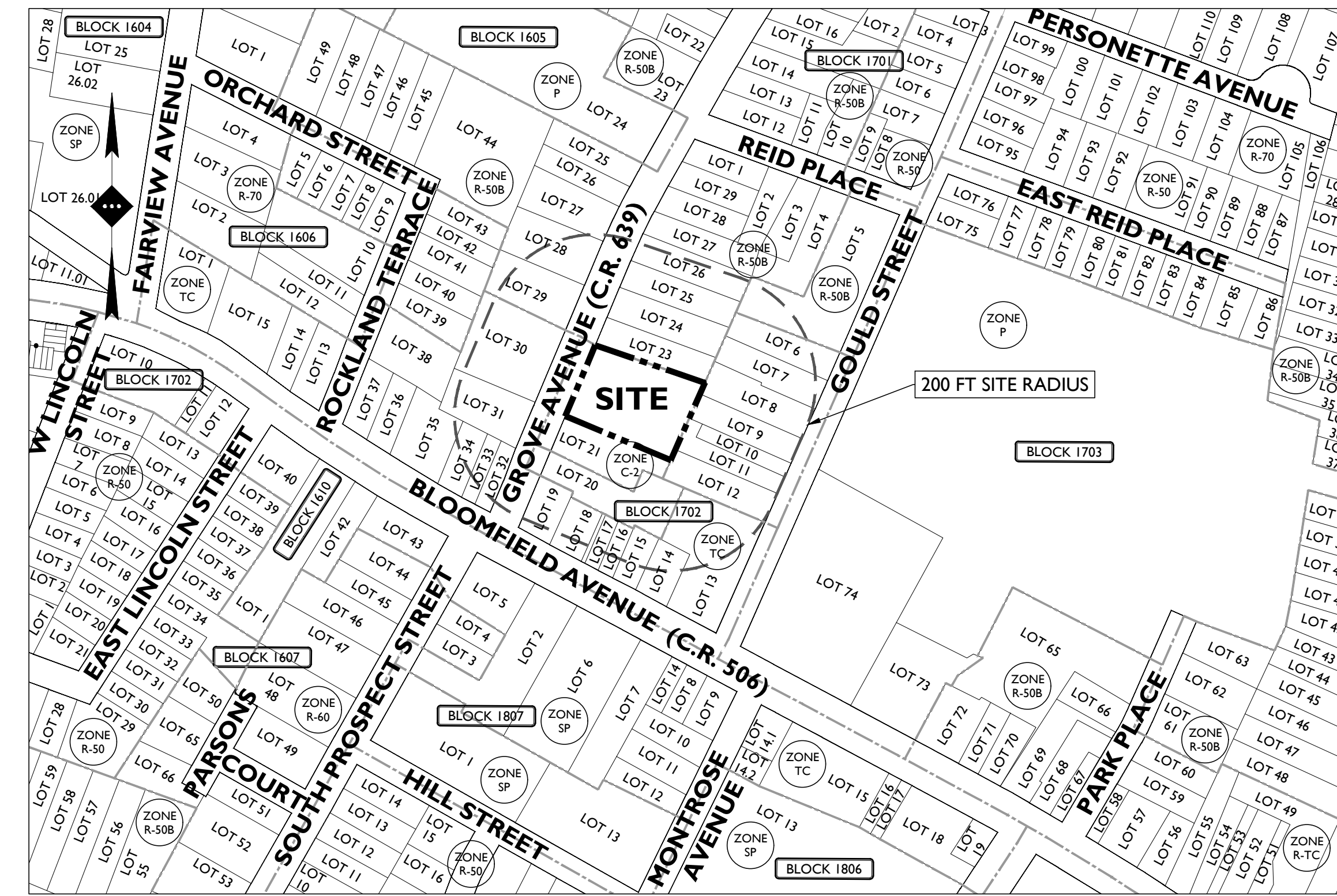
ATTESTED TO BY:

TOWNSHIP OF VERONA SIGNATURE BLOCK

APPROVED BY THE TOWNSHIP OF VERONA LAND USE BOARD:

LAND USE BOARD CHAIRPERSON

LAND USE BOARD SECRETARY



SOURCE: TOWNSHIP OF VERONA TAX MAP, SHEETS 6, 16, 17 & 18. TOWNSHIP OF VERONA ZONING MAP, DATED 11/27/2015.

TAX & ZONING MAP

SCALE: 1" = 200'±

APPLICANT
 21 & 25 GROVE ASSOCIATES LLC
 250 MOONACHIE ROAD, SUITE 302
 BOROUGH OF MOONACHIE, NEW JERSEY, 07074
 PHONE NUMBER
 EMAIL ADDRESS

OWNER
 GROVE REAL ESTATE, LLC
 21 GROVE AVENUE
 TOWNSHIP OF VERONA, NEW JERSEY, 07044

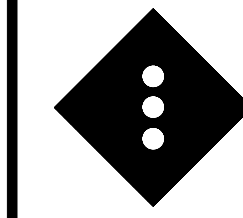
ATTORNEY

JASON R. TUVEL, ESQ.
 PRIME LAW
 2 UNIVERSITY PLAZA, SUITE 109
 HACKENSACK, NJ 07601

ISSUE	DATE	BY	DESCRIPTION
5	03/04/2021	SPM	FOR MUNICIPAL RESUBMISSION
4	07/17/2020	MEM	FOR MUNICIPAL SUBMISSION
3	02/28/2020	DBB	FOR MUNICIPAL SUBMISSION
2	10/10/2019	ANY	FOR MUNICIPAL SUBMISSION
1	09/20/2019	TL	FOR MUNICIPAL SUBMISSION

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PRELIMINARY AND FINAL SITE PLAN

21 & 25 GROVE ASSOCIATES, LLC.

PROPOSED RESIDENTIAL DEVELOPMENT

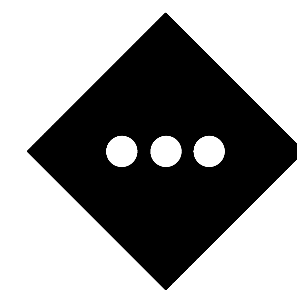
BLOCK 1702, LOT 22
 21 GROVE AVENUE (C.R. 639)
 TOWNSHIP OF VERONA
 ESSEX COUNTY, NEW JERSEY

RELIEF TYPE	CODE SECTION	REQUIRED	PROPOSED
VARIANCE	§150-17.11 C-2 (A)	RESIDENTIAL USES NOT PERMITTED	4-STORY RESIDENTIAL
VARIANCE	§150-17.11 C-2 (D)	MIN. REAR SETBACKS: 50 FT	15.0 FT
VARIANCE	§150-17.11 C-2 (D)	MAX. BUILDING HEIGHT: 2.5 STORIES / 35 FT	4 STORIES / 53.58 FT
VARIANCE	§150-17.11 C-2 (D)	MAX. LOT COVERAGE: 30% (9,363 SF)	61.5% (19,200 SF)
VARIANCE	§150-17.11 C-2 (D)	MAX. IMPROVED LOT COVERAGE: 65% (20,285 SF)	68.8% (21,462 SF)
VARIANCE	§ 150-12.1 (B)(2)	MIN. NUMBER OF REQUIRED PARKING SPACES MAY NOT BE MET OR SATISFIED BY PARKING SPACES LOCATED WITHIN OR UNDERNEATH A PRINCIPAL BUILDING	PARKING UNDER BUILDING
VARIANCE	§ 150-12.2 (A)	MIN. PARKING SPACE DIMENSIONS: 9 FT X 20 FT	8.5 FT X 18.0 FT
VARIANCE	§ 150-12.6 & RSIS REQUIREMENTS	TOTAL SPACES REQUIRED: 67 SPACES	59 SPACES
VARIANCE	§ 150-12.8 (C)(3)	MINIMUM DRIVE AISLE WIDTH FOR 90° PARKING: 24 FEET	23.0 FT

PLANS PREPARED BY:



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PLAN REFERENCE MATERIALS:

- THIS PLAN SET REFERENCES THE FOLLOWING DOCUMENTS INCLUDING, BUT NOT LIMITED TO:
 - BOUNDARY & TOPOGRAPHIC SURVEY PREPARED BY STONEFIELD ENGINEERING, DATED 03/02/2019
 - ARCHITECTURAL PLANS PREPARED BY BILOW GARRETT GROUP ARCHITECTS AND PLANNERS, PC, DATED MARCH 2021.
 - AERIAL MAP OBTAINED FROM GOOGLE EARTH PRO, IMAGERY DATED 05/23/2018.
 - LOCATION MAP OBTAINED FROM USGS QUADRANGLE MAPS - 7.5 MINUTE SERIES, TOWNSHIP OF VERONA, NJ, DATED 2016 & CALDWELL, NJ, DATED 2016.
 - TAX MAP OBTAINED FROM THE TOWNSHIP OF VERONA, ESSEX COUNTY, NEW JERSEY, DATED 11/27/2015.
 - ZONING MAP OBTAINED FROM THE TOWNSHIP OF VERONA, ESSEX COUNTY, NEW JERSEY, DATED 07/11/2011.
 - SITE PLAN PREPARED FOR DECAMP COMMONS PREPARED BY MCCUMSEY - PETRY, P.C., DATED 04/24/1998.
- ALL REFERENCE MATERIAL LISTED ABOVE SHALL BE CONSIDERED A PART OF THIS PLAN SET AND ALL INFORMATION CONTAINED WITHIN THESE MATERIALS SHALL BE UTILIZED IN CONJUNCTION WITH THIS PLAN SET. THE CONTRACTOR IS RESPONSIBLE TO OBTAIN A COPY OF EACH REFERENCE AND REVIEW IT THOROUGHLY PRIOR TO THE START OF CONSTRUCTION.

SHEET INDEX	
DRAWING TITLE	SHEET #
COVER SHEET	C-1
EXISTING CONDITIONS PLAN	C-2
DEMOLITION PLAN	C-3
SITE PLAN	C-4
GRADING & DRAINAGE PLAN	C-5
UTILITY PLAN	C-6
LIGHTING PLAN	C-7
SOIL EROSION & SEDIMENT CONTROL PLAN	C-8
LANDSCAPING PLAN	C-9 & C-10
CONSTRUCTION DETAILS	C-11 - C-14
TRUCK TURNING	C-15

MATTHEW J. SECKLER, P.E.
 NEW JERSEY LICENSE No. 48721
 LICENSED PROFESSIONAL ENGINEER



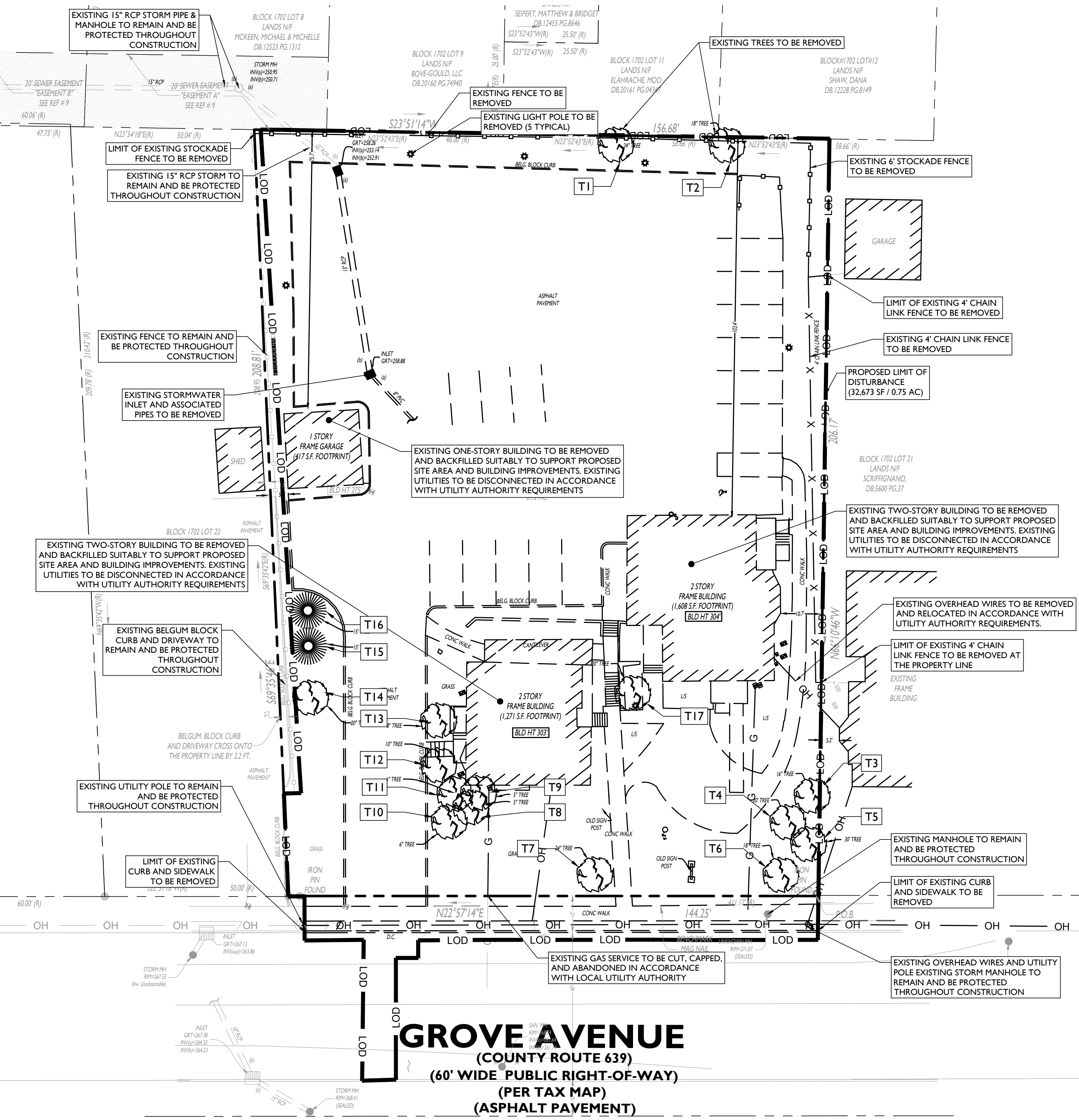
SCALE: AS SHOWN PROJECT ID: T-19059

TITLE:

COVER SHEET

DRAWING:

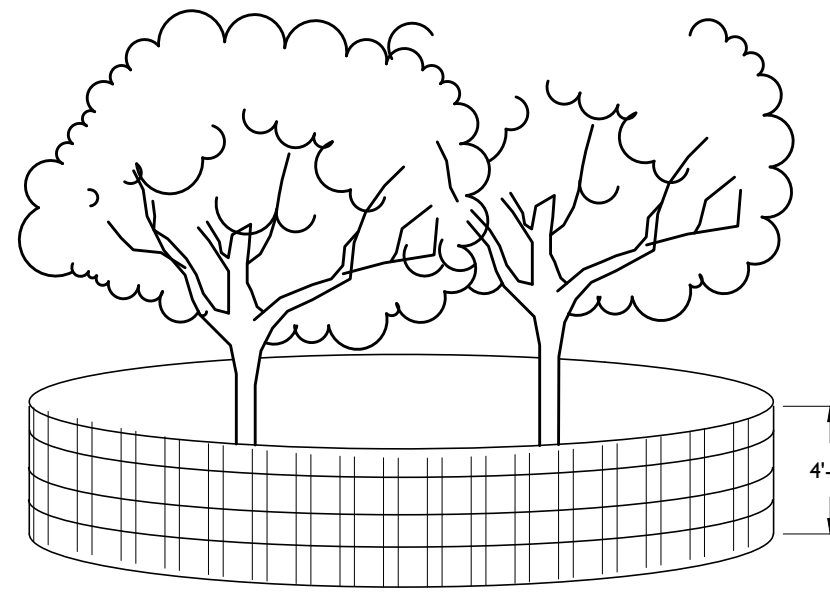
C-1



GROVE AVENUE
 (COUNTY ROUTE 639)
 (60' WIDE PUBLIC RIGHT-OF-WAY)
 (PER TAX MAP)
 (ASPHALT PAVEMENT)

EXISTING TREE SCHEDULE AND MITIGATION REQUIREMENTS			
CODE SECTION	REQUIRED		PROPOSED
§ 136-10	EXISTING TREE SCHEDULE		NUMBER OF REQUIRED REPLACEMENT TREES
	T1	24" (") ACER (*)	4
	T2	18" (") ACER (*)	2
	T3	16" (") ACER (*)	2
	T4	20 FT HT (") THUJA (*)	1
	T5	30 FT HT (") THUJA (*)	1
	T6	18" (") ACER (*)	2
	T7	24" (") QUERCUS (*)	4
	T8	6" (") BETULA (*)	1
	T9	6" (") BETULA (*)	1
	T10	6" (") BETULA (*)	1
	T11	6" (") BETULA (*)	1
	T12	10" (") QUERCUS (*)	1
	T13	8" (") QUERCUS (*)	1
	T14	20" (") CATALPA (*)	2
	T15	15 FT HT (") THUJA (*)	1
	T16	15 FT HT (") THUJA (*)	1
T17	20" (") ACER (*)	2	
MITIGATION CALCULATIONS FOR DECIDUOUS TREES:			(2) 2.5" - 3" CAL DECIDUOUS TREES PROPOSED
6" TO <16" DBM TREES: 6 TREES X 1 (REPLACEMENT FACTOR) = 6 TREES			(46) 6' - 7' HT EVERGREEN TREES PROPOSED
16" TO <24" DBM TREES: 5 TREES X 2 (REPLACEMENT FACTOR) = 10 TREES			
24" OR GREATER DBM TREES: 2 TREES X 4 (REPLACEMENT FACTOR) = 8 TREES			
TOTAL REPLACEMENT DECIDUOUS TREES REQUIRED: 24 TREES			
MITIGATION CALCULATIONS FOR CONIFEROUS TREES:			
10' TO <25' HEIGHT TREES: 3 TREES X 1 (REPLACEMENT FACTOR) = 3 TREES			
25' OR GREATER HEIGHT TREES: 1 TREE X 2 (REPLACEMENT FACTOR) = 2 TREES			
TOTAL REPLACEMENT CONIFEROUS TREES REQUIRED: 5 TREES			

(*) BASED ON PHOTO REVIEW OF EXISTING TREE



- NOTES:
- SNOW FENCING IS TO BE 4'-0" HIGH AND SELF SUPPORTED.
 - DO NOT STOCKPILE MATERIALS OR STORE EQUIPMENT WITHIN THE TREE PROTECTION FENCING.
 - SNOW FENCE TO BE INSTALLED AT DRIP LINE OF EXISTING TREE OR TREE CLUSTER TO BE PROTECTED OR NO CLOSER THAN 6' FROM TREE TRUNK IF NECESSARY.
 - IF THE PROJECT AREA ENCOMPASSES A PORTION OF THE DRIP LINE OF THE TREE, NO MORE THAN ONE THIRD OF THE OF THE TOTAL AREA OF WITHIN THE DRIP LINE SHOULD BE DISTURBED BY CONSTRUCTION OR REGRADING AND A 3" THICK LAYER OF MULCH SHALL BE INSTALLED OVER THE AREA OF THE DRIP LINE WHICH IS NOT PROTECTED BY FENCING TO PROVIDE A CUSHION.
- TREE PROTECTION DETAIL**
 NOT TO SCALE
- TREE PROTECTION FENCE SHOULD BE PLACED AROUND THE DRIP LINE OF TREES TO REMAIN

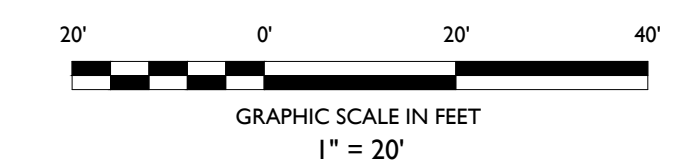
NO FLOODPLAINS, RIPARIAN ZONES, STEEP SLOPES, TRANSITION ZONES, OR WETLANDS ARE PRESENT ON SITE

ALL TREE REMOVAL SHALL BE UNDER CERTIFICATION OF FROM A CERTIFIED TREE EXPERT

- PROTECTION OF EXISTING VEGETATION NOTES:**
- 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 DRIP-LINE OR LIMIT OF DISTURBANCE AS DEPICTED WITHIN THE APPROVED OR FINAL 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 HAVE BEEN COMPLETED.
 - 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 CONTRACTORS SHALL USE ANY AND ALL PRECAUTIONARY MEASURES WHEN PERFORMING WORK AROUND TREES, WALKS, PAVEMENTS, UTILITIES, AND ANY OTHER FEATURES EITHER EXISTING OR PREVIOUSLY INSTALLED UNDER THIS CONTRACT.
 - IN RARE INSTANCES WHERE EXCAVATING, FILL OR GRADING IS REQUIRED WITHIN THE DRIP-LINE OF TREES TO REMAIN, THE WORK SHALL BE PERFORMED AS FOLLOWS:
 - TRENCHING: WHEN TRENCHING OCCURS AROUND TREES TO REMAIN, 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.
 - RAISING GRADES: WHEN THE GRADE AT AN EXISTING TREE IS BELOW THE NEW FINISHED GRADE, AND FILL 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 A MINIMUM OF 18 INCHES (18") AND FINISH APPROXIMATELY TWO INCHES (2") ABOVE THE FINISH GRADE AT TREE. INSTALL GRAVEL BEFORE ANY EARTH FILL IS PLACED. NEW EARTH 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, IF APPLICABLE. TREE WELL INSTALLATION SHALL BE IN ACCORDANCE WITH THE PROVIDED "TREE WELL DETAIL".
 - LOWERING GRADES: EXISTING TREES LOCATED IN AREAS WHERE THE NEW FINISHED GRADE IS 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 CLEARLY THREE INCHES (3") BELOW FINISHED GRADE UNDER THE DIRECTION OF A LICENSED ARBORIST. WHERE CUT EXCEEDING 6 INCHES (6") IS REQUIRED, A DRY LAID RETAINING WALL SHALL BE CONSTRUCTED, IF APPLICABLE. THE RETAINING WALL INSTALLATION SHALL BE IN ACCORDANCE WITH THE PROVIDED "TREE RETAINING WALL DETAIL".

- DEMOLITION NOTES:**
- 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 TO REVIEW THE ENTIRE PLAN SET AND ASSOCIATED REPORTS/REFERENCE DOCUMENTS INCLUDING ALL DEMOLITION ACTIVITIES AND INCIDENTAL TASKS NECESSARY TO COMPLETE THE SITE IMPROVEMENTS.
 - THE CONTRACTOR IS RESPONSIBLE TO DETERMINE THE MEANS AND METHODS OF DEMOLITION ACTIVITIES.
 - EXPLOSIVES SHALL NOT BE USED UNLESS WRITTEN CONSENT FROM BOTH THE OWNER AND ANY APPLICABLE 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 ALL SEISMIC TESTING AS REQUIRED AND ANY DAMAGES AS THE RESULT OF SAID DEMOLITION PRACTICES.
 - ALL DEMOLITION ACTIVITIES SHALL BE PERFORMED IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL CODES. 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 EXCAVATIONS ASSOCIATED WITH DEMOLISHED STRUCTURES OR REMOVED TANKS SHALL BE BACKFILLED WITH SUITABLE MATERIAL AND COMPACTED TO SUPPORT SITE AND BUILDING IMPROVEMENTS. A GEOTECHNICAL ENGINEER SHOULD BE PRESENT DURING BACKFILLING ACTIVITIES TO OBSERVE AND CERTIFY THAT BACKFILL MATERIAL WAS COMPACTED TO A SUITABLE CONDITION.
 - APPLICABLE DEBRIS SHALL NOT BE BURIED ON SITE. ALL WASTE/DEBRIS GENERATED FROM DEMOLITION ACTIVITIES SHALL BE DISPOSED OF IN ACCORDANCE WITH ALL LOCAL, STATE AND FEDERAL REQUIREMENTS. THE CONTRACTOR IS RESPONSIBLE TO MAINTAIN ALL RECORDS OF THE DISPOSAL TO DEMONSTRATE COMPLIANCE WITH THE ABOVE REGULATIONS.
 - DISEASED TREES ON SITE IT MUST BE PROPERLY REMOVED IN A TIMELY MANNER UNDER THE SUPERVISION OF A CERTIFIED TREE EXPERT.

SYMBOL	DESCRIPTION
---	FEATURE TO BE REMOVED / DEMOLISHED
---	LIMIT OF DISTURBANCE



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



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DATE	BY	ISSUE	DESCRIPTION
03/04/2021	SPM	FOR MUNICIPAL RESUBMISSION	
07/31/2020	MEM	FOR MUNICIPAL SUBMISSION	
02/28/2020	DBB	FOR MUNICIPAL SUBMISSION	
10/10/2019	ANY	FOR MUNICIPAL SUBMISSION	
09/20/2019	TL	FOR MUNICIPAL SUBMISSION	

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PRELIMINARY AND FINAL SITE PLAN

21 & 25 GROVE ASSOCIATES, LLC.

PROPOSED RESIDENTIAL DEVELOPMENT

BLOCK 1702, LOT 22
 21 GROVE AVENUE (C.R. 639)
 TOWNSHIP OF YERONA
 ESSEX COUNTY, NEW JERSEY

MATTHEW J. SECKLER, P.E.
 NEW JERSEY LICENSE NO. 48721
 LICENSED PROFESSIONAL ENGINEER

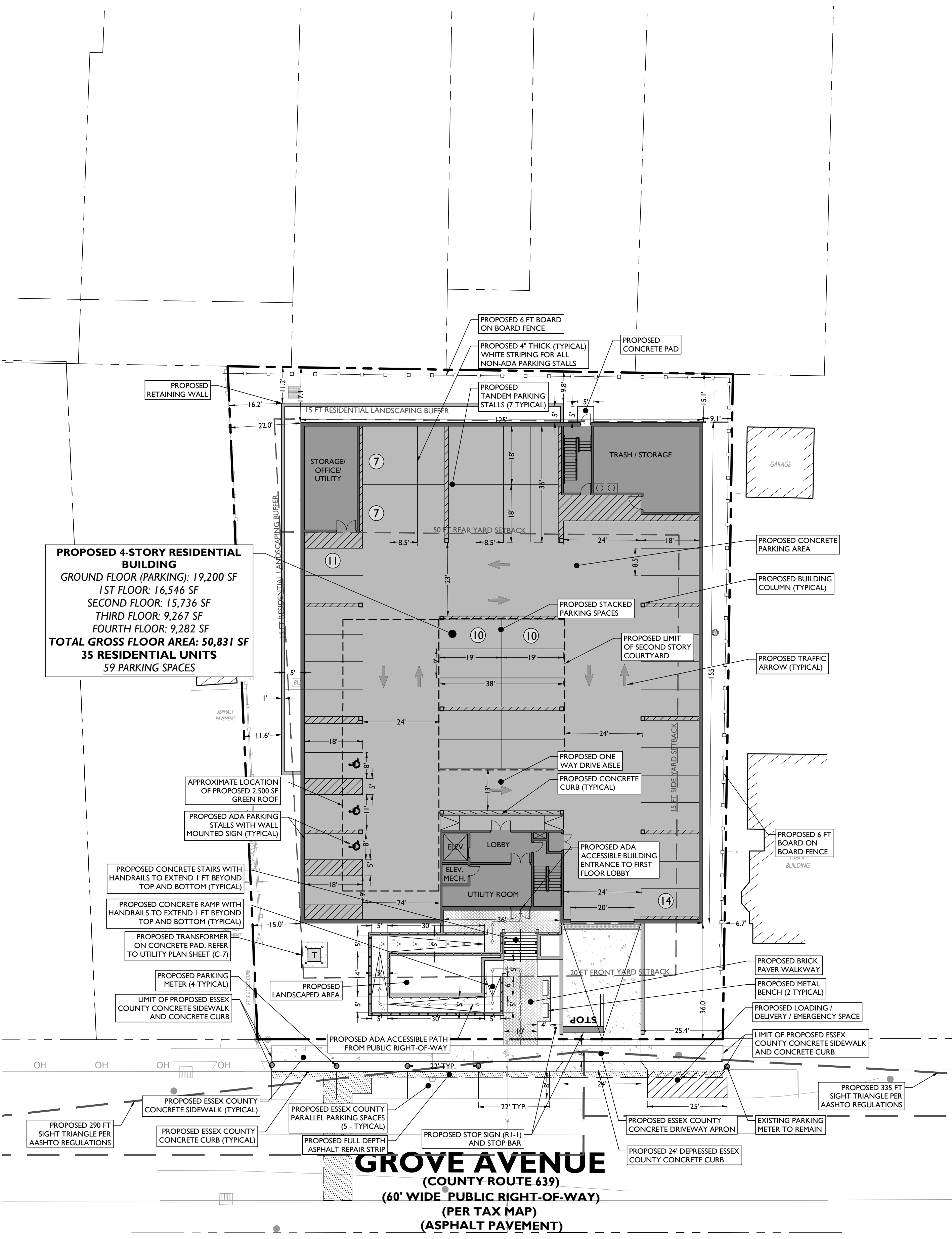
STONEFIELD
 engineering & design

SCALE: 1" = 20' PROJECT ID: T-19059

TITLE:
TREE REMOVAL AND DEMOLITION PLAN

DRAWING:
C-3

21019117-1001-21 AND 25 GROVE ASSOCIATES, LLC - 31 GROVE AVENUE, VERONA, NJ 07093-4507-DWG



PROPOSED 4-STORY RESIDENTIAL BUILDING
 GROUND FLOOR (PARKING): 19,200 SF
 1ST FLOOR: 16,546 SF
 SECOND FLOOR: 15,736 SF
 THIRD FLOOR: 9,267 SF
 FOURTH FLOOR: 9,282 SF
TOTAL GROSS FLOOR AREA: 50,831 SF
35 RESIDENTIAL UNITS
59 PARKING SPACES

GROVE AVENUE
 (COUNTY ROUTE 639)
 (60' WIDE PUBLIC RIGHT-OF-WAY)
 (PER TAX MAP)
 (ASPHALT PAVEMENT)

TABLE OF LAND USE AND ZONING			
BLOCK 1702, LOT 22			
PROFESSIONAL OFFICE AND BUSINESS (C-2)			
PROPOSED USE	NON-PERMITTED (V)		
ZONING REQUIREMENT	REQUIRED	EXISTING	PROPOSED
MINIMUM LOT SIZE	15,000 SF (0.34 AC)	31,197 SF (0.72 AC)	31,197 SF (0.72 AC)
MINIMUM LOT WIDTH	100 FT	144.3 FT	144.3 FT
MINIMUM FRONT YARD SETBACK	20 FT	30.1 FT	36.0 FT
MINIMUM SIDE YARD SETBACK (ONE)	15 FT	12.8 FT	6.7 FT (V)
MINIMUM SIDE YARD SETBACK (BOTH)	35 FT	62.4 FT	21.7 FT (V)
MINIMUM REAR YARD SETBACK	50 FT	102.7 FT	15.0 FT (V)
MAXIMUM BUILDING HEIGHT (*)	2.5 STORIES / 35 FT	2-STORIES	4-STORIES / 53.58 FT (**)
MAXIMUM LOT COVERAGE	30% (9,359.1 SF)	10.6% (3,294.9 SF)	61.5% (19,200 SF) (V)
MAXIMUM IMPROVED LOT COVERAGE	65% (20,278.1 SF)	70.2% (21,908 SF) (EN)	68.8% (21,462 SF) (V)
MAXIMUM FLOOR AREA RATIO	50% (15,598 SF)	-	162.9% (50,831 SF) (V)
MINIMUM LANDSCAPING BUFFER ALONG RESIDENTIAL ZONE	15 FT	REAR YARD: 8.5 FT (EN) SIDE YARD: 9.1 FT (EN)	REAR YARD: 15.1 FT SIDE YARD: 15.0 FT

(V) VARIANCE
 (EN) EXISTING NON-CONFORMITY
 (*) BUILDING HEIGHT DEFINITION: THE VERTICAL DISTANCE MEASURED FROM THE AVERAGE GROUND ELEVATION (265.42 FT) OF THE EXISTING NATURAL GRADE AT THE BUILDING LINE AROUND THE FULL PERIMETER OF THE BUILDING TO THE BUILDING'S HIGHEST POINT.
 (**) BASED OFF THE PREVIOUSLY PROPOSED PLAN SUBMITTED 02/28/2020, THE BUILDING HEIGHT WAS CALCULATED FROM THE PROPOSED AVERAGE GROUND ELEVATION OF 264.49 FT. THE CURRENT PROPOSED BUILDING HEIGHT BASED ON THE PREVIOUS CALCULATION OF THE AVERAGE GRADE OF 264.49 FT WOULD RESULT IN A BUILDING HEIGHT OF 54.51 FT.

OFF-STREET PARKING REQUIREMENTS		
CODE SECTION	REQUIRED	PROPOSED
§ 150-12.1 (B)(2) MINIMUM NUMBER OF SPACES	THE MINIMUM NUMBER OF REQUIRED PARKING SPACES MAY NOT BE MET OR SATISFIED BY PARKING SPACES LOCATED WITHIN OR UNDERNEATH A PRINCIPAL BUILDING	PARKING UNDER BUILDING (V)
§ 150-12.2 (A) SIZE OF PARKING SPACES	MINIMUM PARKING SPACE DIMENSIONS: 9 FT X 20 FT	8.5 FT X 18 FT (V)
§ 150-12.3 (B) ACCESS	NO DRIVEWAY OR ACCESS OR EGRESS FROM A PARKING AREA SHALL BE LOCATED CLOSER THAN 50 FEET FROM ANY INTERSECTION OR AS REQUIRED BY COUNTY OR STATE REGULATIONS.	COMPLIES
§ 150-12.3 (C) ACCESS	ALL DRIVEWAYS SHALL CROSS SIDEWALK AREAS AT SIDEWALK GRADE.	COMPLIES
§ 150-12.3 (D) ACCESS	MINIMUM DRIVEWAY SETBACK FROM ADJACENT PROPERTY LINE: 1 FT	25.4 FT
§ 150-12.4(A)(1) ACCESS WIDTH	DRIVEWAY WIDTH: MINIMUM: 12 FT	24.0 FT
§ 150-12.4(B) ACCESS WIDTH	PARKING AREAS FOR THREE OR MORE VEHICLES AND ACCESS TO THIS PARKING SHALL BE PAVED AND SHALL BE DESIGNED AND PLANNED IN ACCORDANCE WITH ACCEPTED ENGINEERING PRINCIPLES.	COMPLIES
§ 150-12.6 & RSIS REQUIREMENTS	REQUIRED PARKING SPACES: 1 BEDROOM: 14 UNITS X 1.87 UNIT = 25 SPACES 2 BEDROOM: 20 UNITS X 2.1 UNIT = 40 SPACES 3 BEDROOM: 1 UNIT X 2.1 UNIT = 2 SPACES TOTAL SPACES REQUIRED: 67 SPACES	59 SPACES (V)
§ 150-12.8 (A) ADDITIONAL OFF-STREET PARKING REGULATIONS	ALL PARKING AREAS AND DRIVEWAYS SHALL BE PAVED WITH BITUMINOUS CONCRETE, CONCRETE OR OTHER APPROVED PERMANENT HARD-SURFACED MATERIAL, AND ALL PARKING SPACES SHALL BE LINED AND DESIGNATED ON SAID PAVEMENT.	COMPLIES
§ 150-12.8 (B) ADDITIONAL OFF-STREET PARKING REGULATIONS	ALL PARKING AREAS AND DRIVEWAYS MUST HAVE A SIX-INCH SOLID CONCRETE OR BELGIAN BLOCK CURB TO SEPARATE THE PARKING AREA AND/OR DRIVEWAY FROM THE REQUIRED FRONT, SIDE AND REAR YARD WHEN THESE PARKING AREAS ARE LOCATED WITHIN SIX FEET OF THE YARD.	COMPLIES
§ 150-12.8 (C)(3) ADDITIONAL OFF-STREET PARKING REGULATIONS	MINIMUM DRIVE AISLE WIDTH FOR 90° PARKING: 24 FEET	23.0 FT (V)
§ 150-12.8 (G) ADDITIONAL OFF-STREET PARKING REGULATIONS	ALL PARKING SPACES SHALL BE LAID OUT SO AS TO HAVE DIRECT ACCESS FROM A DRIVEWAY OR AISLE.	COMPLIES
§ 150-12.8 (H) ADDITIONAL OFF-STREET PARKING REGULATIONS	ALL OFF-STREET PARKING AREAS SHALL PROVIDE SPACE TO PERMIT A VEHICLE TO TURN AROUND ON THE SITE AS TO AVOID A BACKING MANEUVER WITHIN THE STREET.	COMPLIES

GENERAL DESIGN REQUIREMENTS		
CODE SECTION	REQUIRED	PROPOSED
§ 150-3.3 (F) YARD REGULATIONS	NO PAVEMENT IN REQUIRED FRONT YARD, SIDE YARD, OR REAR YARD EXCEPT TO ALLOW DRIVEWAY APRONS.	COMPLIES
§ 150-7.12 (A) RETAINING WALLS	NO RETAINING WALL SHALL EXCEED FOUR (4) FEET IN HEIGHT IN THE MINIMUM FRONT YARD SETBACK AND SIX (6) FEET IN HEIGHT ELSEWHERE.	FRONT YARD: 10.1 FT (V) ELSEWHERE: 3.5 FT
§ 150-7.12 (C) RETAINING WALLS	WHEN RETAINING WALLS ARE UTILIZED, A FENCE MUST BE PLACED UPON THE LAND BEHIND THE HIGHEST RETAINING WALL IF THE MEASUREMENT FROM THE BOTTOM OF THE LOWEST RETAINING WALL TO THE TOP OF THE HIGHEST RETAINING WALL EXCEEDS TEN FEET OVER A FIVE FOOT HORIZONTAL MEASUREMENT.	COMPLIES
§ 150-7.12 (D) RETAINING WALLS	ALL RETAINING WALLS MUST BE DESIGNED NOT ONLY TO RETAIN THE SOIL BEHIND SAID WALL BUT ALSO CONTAIN STRUCTURES TO ENSURE ADEQUATE GROUND WATER DRAINAGE.	COMPLIES
§ 150-7.13 (A) MECHANICAL EQUIPMENT	NO MECHANICAL EQUIPMENT SHALL BE LOCATED WITHIN A MINIMUM YARD REQUIREMENT AND SHALL NOT EXTEND MORE THAN FIVE FEET FROM THE STRUCTURE FOR WHICH THEY SERVE.	COMPLIES
§ 150-7.18(D) SIDEWALKS, NON RESIDENTIAL	SIDEWALKS OF CONCRETE SHALL BE FIVE INCHES THICK EXCEPT AT POINTS OF VEHICULAR CROSSING, WHERE THEY SHALL BE AT LEAST EIGHT INCHES THICK AND SHALL BE REINFORCED WITH WELDED WIRE FABRIC MESH OR AN EQUIVALENT.	COMPLIES
§ 150-7.73(A) FENCES	MAXIMUM FENCE HEIGHT MEASURED FROM GROUND LEVEL: 6 FT	6.0 FT
§ 150-7.73(G) FENCES	MINIMUM FENCE SETBACK FROM PROPERTY LINE: 0.5 FT	1.0 FT
§ 150-7.73(L) FENCES	NO FENCE SHALL BE ERECTED THAT INTERFERES WITH THE PUBLIC RIGHT-OF-WAY OR INTERFERES WITH THE VISIBILITY OF VEHICULAR AND PEDESTRIAN TRAFFIC PROCEEDING ALONG ANY PUBLIC RIGHT-OF-WAY.	COMPLIES

(V) VARIANCE

DESIGN VALUES FOR TURNING SIGHT DISTANCE (AASHTO)

FIGURE 6-A: SIGHT DISTANCE AT INTERSECTIONS FOR LEFT OR RIGHT TURNING & CROSSING VEHICLES WITH STOP CONTROL

Intersection Sight Distance (d) Stop Control on Minor Road Two Lane Highway

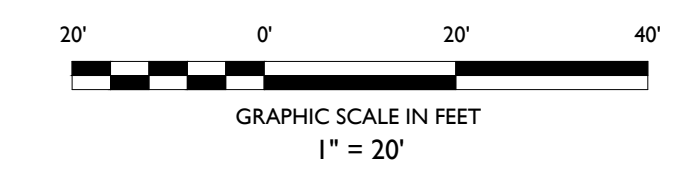
Design Speed	Left-Turn			Right-Turn or Cross		
	P	W	W	P	W	W
15	280	350	420	310	380	450
20	330	420	510	370	460	550
25	390	490	590	440	540	630
30	440	560	680	500	610	720
35	500	630	760	570	690	810
40	550	700	840	640	770	890
45	610	770	920	710	850	970
50	660	840	1010	770	930	1050
55	720	910	1100	840	1010	1130
60	770	980	1180	910	1080	1200

For highways with more than 2 lanes or when approach roads on minor road exceeds 3%, the distance (d) must be calculated using the formula: $d = 1.47V^2$

SYMBOL	DESCRIPTION
---	PROPERTY LINE
---	SETBACK LINE
---	SAWCUT LINE
---	PROPOSED CURB
---	PROPOSED DEPRESSED CURB
---	PROPOSED SIGNS / BOLLARDS
---	PROPOSED BUILDING
---	PROPOSED CONCRETE
---	PROPOSED RETAINING WALL
---	PROPOSED RAILING
---	PROPOSED BUILDING DOORS
---	PROPOSED BOARD ON BOARD FENCE
---	PROPOSED CHAIN LINK FENCE
---	PROPOSED PARKING METER

GENERAL NOTES

- THE CONTRACTOR SHALL VERIFY AND FAMILIARIZE THEMSELVES WITH THE EXISTING SITE CONDITIONS AND THE PROPOSED SCOPE OF WORK (INCLUDING DIMENSIONS, LAYOUT, ETC.) PRIOR TO INITIATING THE IMPROVEMENTS IDENTIFIED WITHIN THESE DOCUMENTS. SHOULD ANY DISCREPANCY BE FOUND BETWEEN THE EXISTING SITE CONDITIONS AND THE PROPOSED WORK, THE CONTRACTOR SHALL NOTIFY STONEFIELD ENGINEERING & DESIGN, LLC PRIOR TO THE START OF CONSTRUCTION.
- THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS AND ENSURE THAT ALL REQUIRED APPROVALS HAVE BEEN OBTAINED PRIOR TO THE START OF CONSTRUCTION. COPIES OF ALL REQUIRED PERMITS AND APPROVALS SHALL BE KEPT ON SITE AT ALL TIMES DURING CONSTRUCTION.
- ALL CONTRACTORS WILL, TO THE FULLEST EXTENT PERMITTED BY LAW, INDEMNIFY AND HOLD HARMLESS STONEFIELD ENGINEERING & DESIGN, LLC, AND ITS SUB-CONSULTANTS FROM AND AGAINST ANY DAMAGES AND LIABILITIES INCLUDING ATTORNEY'S FEES ARISING OUT OF CLAIMS BY EMPLOYEES OF THE CONTRACTOR IN ADDITION TO CLAIMS CONNECTED TO THE PROJECT AS A RESULT OF NOT CARRYING THE PROPER INSURANCE FOR WORKERS COMPENSATION, LIABILITY INSURANCE, AND LIMITS OF COMMERCIAL GENERAL LIABILITY INSURANCE.
- THE CONTRACTOR SHALL NOT DEVIATE FROM THE PROPOSED IMPROVEMENTS IDENTIFIED WITHIN THIS PLAN SET UNLESS APPROVAL IS PROVIDED IN WRITING BY STONEFIELD ENGINEERING & DESIGN, LLC.
- THE CONTRACTOR IS RESPONSIBLE TO DETERMINE THE MEANS AND METHODS OF CONSTRUCTION.
- THE CONTRACTOR SHALL NOT PERFORM ANY WORK OR CAUSE DISTURBANCE ON A PRIVATE PROPERTY NOT CONTROLLED BY THE PERSON OR ENTITY WHO HAS AUTHORIZED THE WORK WITHOUT PRIOR WRITTEN CONSENT FROM THE OWNER OF THE PRIVATE PROPERTY.
- THE CONTRACTOR IS RESPONSIBLE TO RESTORE ANY DAMAGED OR UNDERMINED STRUCTURE OR SITE FEATURE THAT IS IDENTIFIED TO REMAIN ON THE PLAN SET. ALL REPAIRS SHALL USE NEW MATERIALS TO RESTORE THE FEATURE TO ITS EXISTING CONDITION AT THE CONTRACTOR'S EXPENSE.
- CONTRACTOR IS RESPONSIBLE TO PROVIDE THE APPROPRIATE SHOP DRAWINGS, PRODUCT DATA, AND OTHER REQUIRED SUBMITTALS FOR REVIEW. STONEFIELD ENGINEERING & DESIGN, LLC, WILL REVIEW THE SUBMITTALS IN ACCORDANCE WITH THE DESIGN INTENT AS REFLECTED WITHIN THE PLAN SET.
- THE CONTRACTOR IS RESPONSIBLE FOR TRAFFIC CONTROL IN ACCORDANCE WITH MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION.
- THE CONTRACTOR IS REQUIRED TO PERFORM ALL WORK IN THE PUBLIC RIGHT-OF-WAY IN ACCORDANCE WITH THE APPROPRIATE GOVERNING AUTHORITY AND SHALL BE RESPONSIBLE FOR THE PROCUREMENT OF STREET OPENING PERMITS.
- THE CONTRACTOR IS REQUIRED TO RETAIN AN OSHA CERTIFIED SAFETY INSPECTOR TO BE PRESENT ON SITE AT ALL TIMES DURING CONSTRUCTION & DEMOLITION ACTIVITIES.
- SHOULD AN EMPLOYEE OF STONEFIELD ENGINEERING & DESIGN, LLC, BE PRESENT ON SITE AT ANY TIME DURING CONSTRUCTION, IT DOES NOT RELIEVE THE CONTRACTOR OF ANY OF THE RESPONSIBILITIES AND REQUIREMENTS LISTED IN THE NOTES WITHIN THIS PLAN SET.



NO.	DATE	ISSUE	BY	DESCRIPTION
5	03/04/2021	SPM		FOR MUNICIPAL RESUBMISSION
4	07/31/2020	MEM		FOR MUNICIPAL SUBMISSION
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2	10/10/2019	ANY		FOR MUNICIPAL SUBMISSION
1	09/20/2019	TL		FOR MUNICIPAL SUBMISSION

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PRELIMINARY AND FINAL SITE PLAN

21 & 25 GROVE ASSOCIATES, LLC.

PROPOSED RESIDENTIAL DEVELOPMENT

BLOCK 1702, LOT 22
 21 GROVE AVENUE (C.R. 639)
 TOWNSHIP OF YERONA
 ESSEX COUNTY, NEW JERSEY

MATTHEW J. SECKLER, P.E.
 NEW JERSEY LICENSE No. 4871
 LICENSED PROFESSIONAL ENGINEER

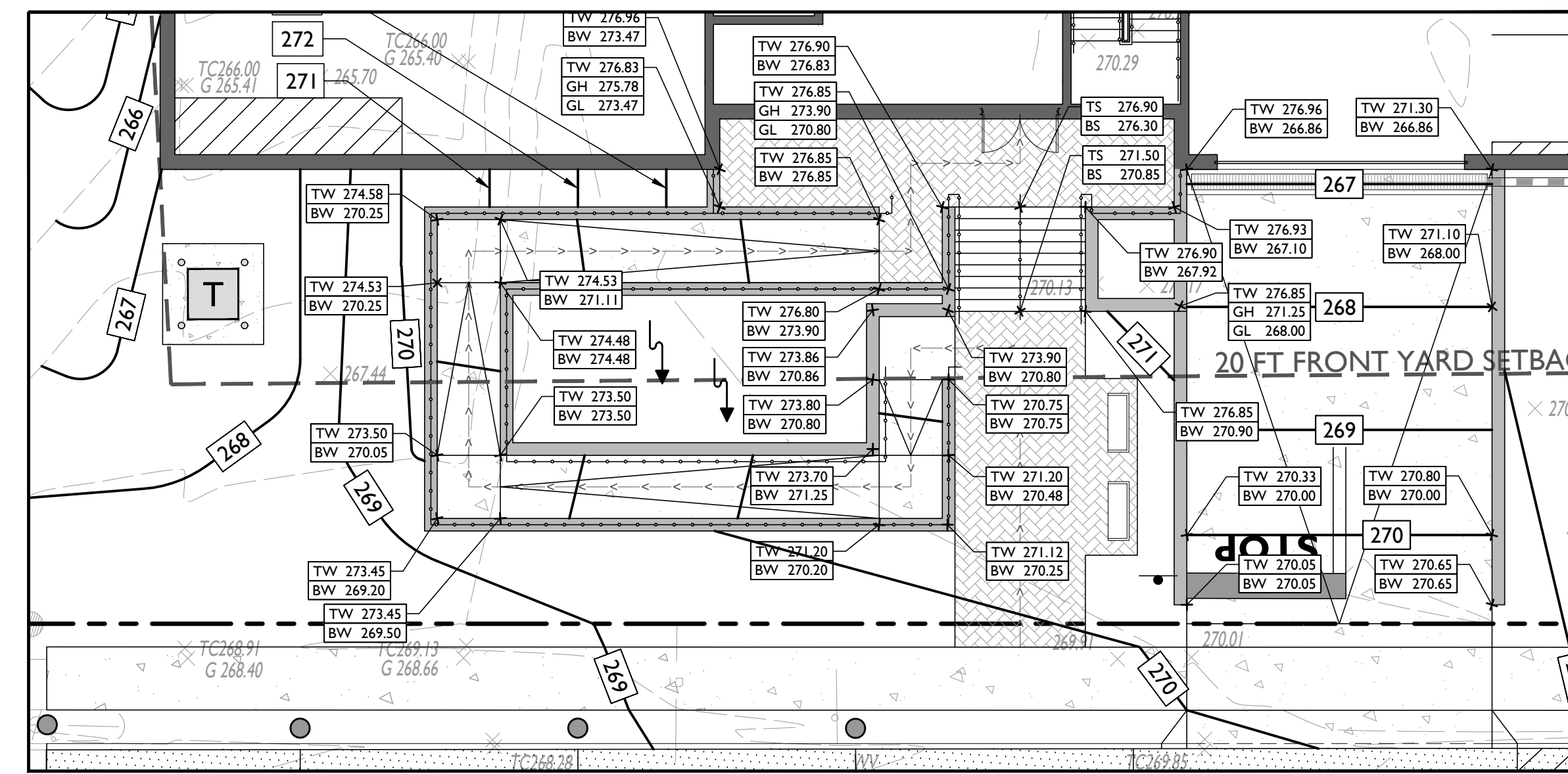
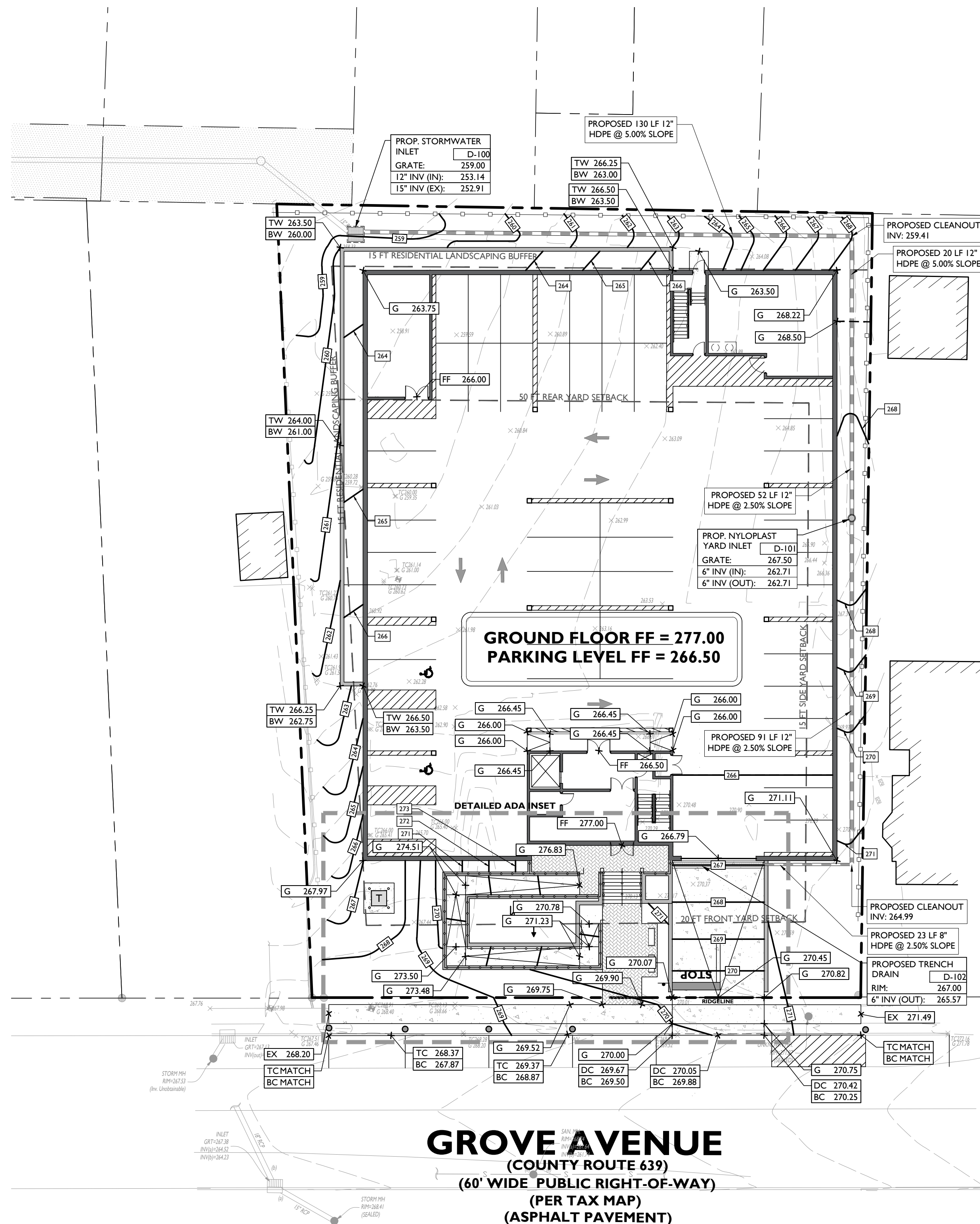
STONEFIELD
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SCALE: 1" = 20' PROJECT ID: T-19059

TITLE:
SITE PLAN (LOWER LEVEL)

DRAWING:
C-4

210911901071 AND 25 GROVE ASSOCIATES, LLC - 31 GROVE AVENUE, VERONA, NJ 07093-0000, 973.261.1000



ENTRANCE RAMP AND STAIR INSET

GRAPHIC SCALE IN FEET
1" = 10'

SYMBOL	DESCRIPTION
	PROPOSED GRADING CONTOUR
	PROPOSED GRADING RIDGELINE
	PROPOSED DIRECTION OF DRAINAGE FLOW
	PROPOSED GRADE SPOT SHOT
	PROPOSED TOP OF CURB / BOTTOM OF CURB SPOT SHOT
	PROPOSED FLUSH CURB SPOT
	PROPOSED DEPRESSED CURB / BOTTOM OF CURB SPOT SHOT
	PROPOSED TOP OF WALL / BOTTOM OF WALL SPOT SHOT
	PROPOSED STORMWATER INLETS
	PROPOSED STORMWATER MANHOLES
	PROPOSED STORMWATER PIPE

GRADING NOTES

- ALL SOIL AND MATERIAL REMOVED FROM THE SITE SHALL BE DISPOSED OF IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REQUIREMENTS. ANY GROUNDWATER DE-WATERING PRACTICES SHALL BE PERFORMED UNDER THE SUPERVISION OF A QUALIFIED PROFESSIONAL. THE CONTRACTOR IS REQUIRED TO OBTAIN ALL NECESSARY PERMITS FOR THE DISCHARGE OF DE-WATERED 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 1:100 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 IF THIS CONDITION 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.

DRAINAGE AND UTILITY NOTES

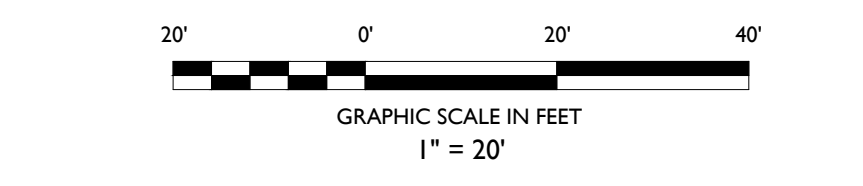
- THE CONTRACTOR TO PERFORM A TEST PIT PRIOR TO CONSTRUCTION (RECOMMEND 30 DAYS PRIOR) AT LOCATIONS OF EXISTING UTILITY CROSSINGS FOR STORMWATER IMPROVEMENTS. SHOULD A CONFLICT EXIST, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY STONEFIELD ENGINEERING & DESIGN, LLC IN WRITING.
- CONTRACTOR SHALL START CONSTRUCTION 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 DESIGNS SHALL BE SUBMITTED TO STONEFIELD ENGINEERING & DESIGN, LLC, AND THE OWNER PRIOR TO THE START OF CONSTRUCTION.
- 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.

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. CURBS 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.



NO.	DATE	ISSUE	DESCRIPTION
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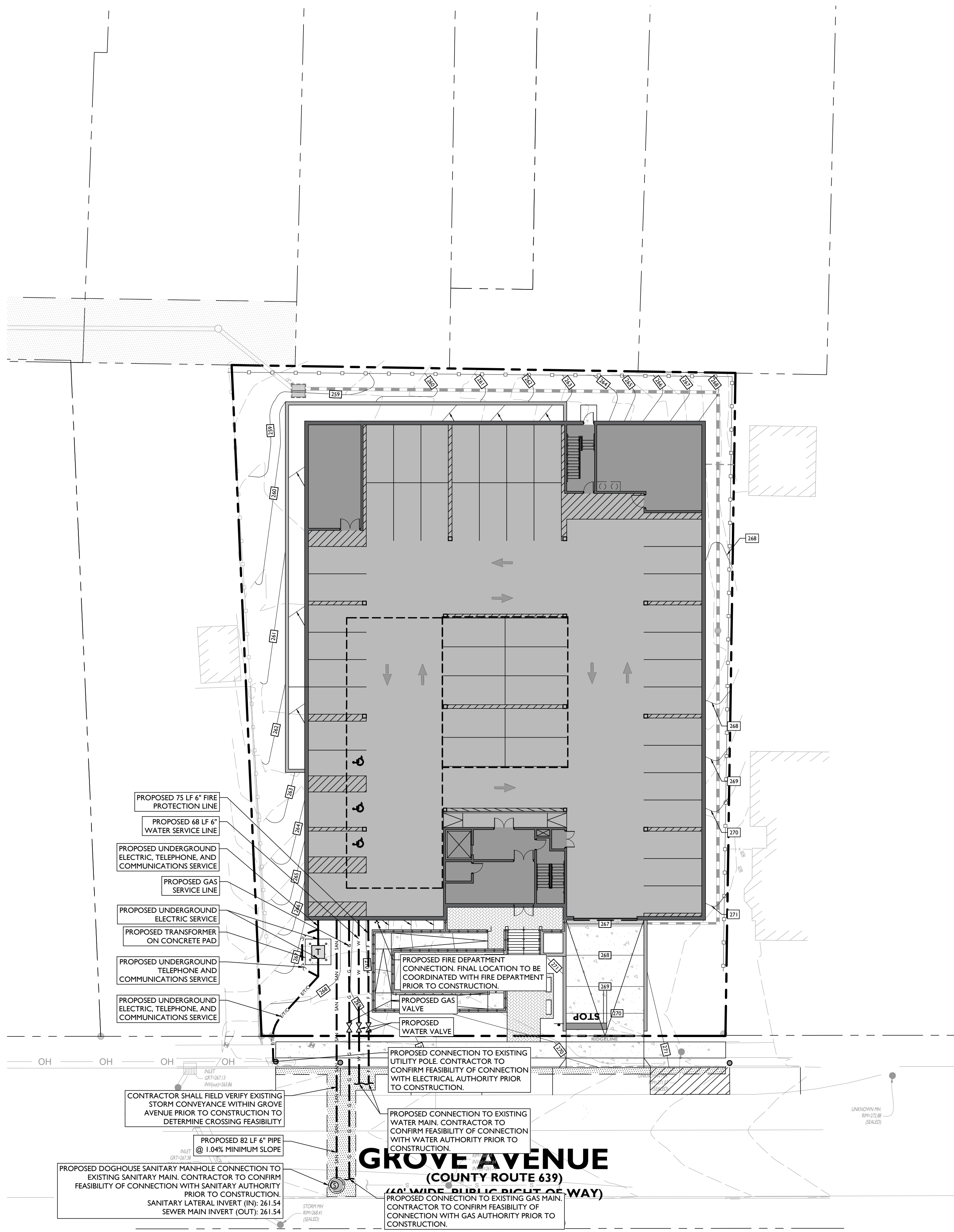
MATTHEW J. SECKLER, P.E.
NEW JERSEY LICENSE No. 48721
LICENSED PROFESSIONAL ENGINEER

STONEFIELD
engineering & design

SCALE: 1" = 20' PROJECT ID: T-19059

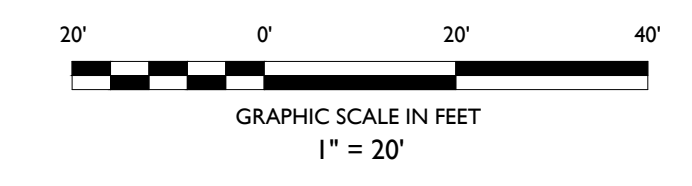
TITLE: **GRADING & DRAINAGE PLAN**

DRAWING: **C-5**



SYMBOL	DESCRIPTION
---	PROPERTY LINE
— SAN —	PROPOSED SANITARY LATERAL
— W —	PROPOSED DOMESTIC WATER SERVICE
— E/T/C —	PROPOSED ELECTRICAL/DATA CONDUITS
— E —	PROPOSED ELECTRICAL CONDUITS
— OH —	PROPOSED OVERHEAD WIRES
— G —	PROPOSED GAS LINE
⊗	PROPOSED VALVE
⊙	PROPOSED SANITARY MANHOLE / CLEANOUT
⊕	PROPOSED UTILITY POLE

- DRAINAGE AND UTILITY NOTES**
1. 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.
 2. THE CONTRACTOR IS RESPONSIBLE TO PROTECT AND MAINTAIN IN OPERATION ALL UTILITIES NOT DESIGNATED TO BE REMOVED.
 3. THE CONTRACTOR IS RESPONSIBLE FOR REPAIRING ANY DAMAGE TO ANY EXISTING UTILITY IDENTIFIED TO REMAIN WITHIN THE LIMITS OF THE PROPOSED WORK DURING CONSTRUCTION.
 4. 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.
 5. 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.
 6. 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.
 7. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING GAS, ELECTRIC AND TELECOMMUNICATION CONNECTIONS WITH THE APPROPRIATE GOVERNING AUTHORITY.
 8. CONTRACTOR SHALL START CONSTRUCTION OF ANY GRAVITY SEWER AT THE LOWEST INVERT AND WORK UP-GRADE.
 9. 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.
 10. 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.



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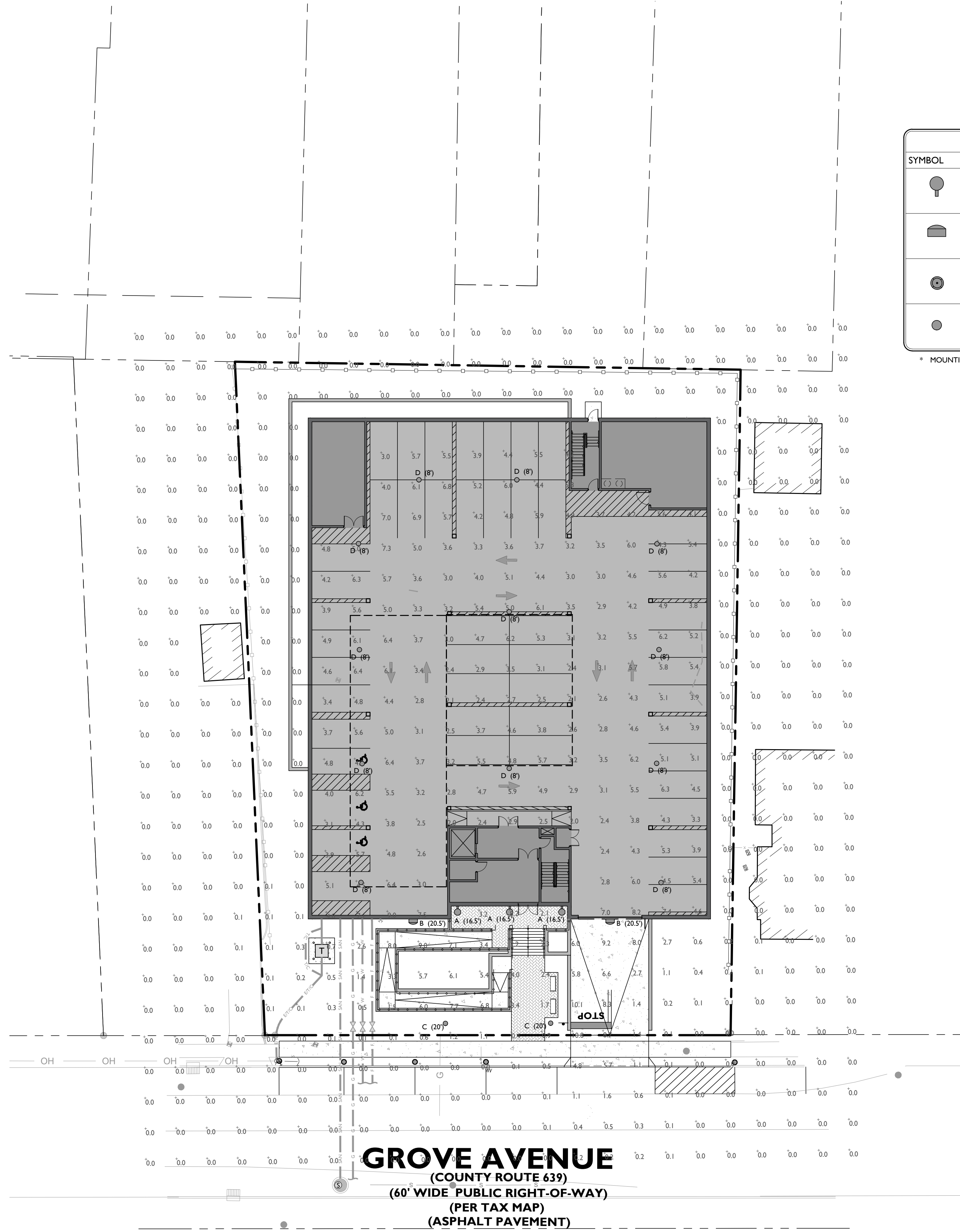
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SCALE: 1" = 20' PROJECT ID: T-19059

TITLE:
UTILITY PLAN

DRAWING:
C-6

T:\2019\19059\21 AND 25 GROVE ASSOCIATES, LLC - 31 GROVE AVENUE, VERONA, NJ\CADD\DWG\DP\DP-UTILITY.DWG



GROVE AVENUE
 (COUNTY ROUTE 639)
 (60' WIDE PUBLIC RIGHT-OF-WAY)
 (PER TAX MAP)
 (ASPHALT PAVEMENT)

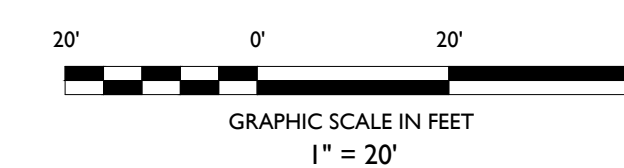
PROPOSED LUMINAIRE SCHEDULE							
SYMBOL	LABEL	QUANTITY	SECURITY LIGHTING	DISTRIBUTION	LLF	MANUFACTURER	IES FILE
	A	3	WESTWOOD 912-2 SERIES WALL MOUNTED LIGHT - 50 WATTS	-	0.90	COOPER LIGHTING	912-2-50PAR20-120-NFL.IES
	B	2	LED PATRIOT WALL SCONCE LIGHT (XPWS3) - 55 WATTS	WT	0.90	LSI LIGHTING	XPWS3-WT-LED-48-350-CW-UE.IES
	C	2	XLXM3 SERIES AREA DECORATIVE LED AREA LIGHT - 108 WATTS	3	0.90	LSI LIGHTING	XLXM3-PT-3-LED-HO-NW.IES
	D	12	EXCURSION LED RECESSED CANOPY LIGHT - 40K - 87.5 WATTS	-	0.90	LSI LIGHTING	EXN-EGLED-10L-TSW-40.IES

* MOUNTING HEIGHTS MEASURED FROM THE FIRST FLOOR FINISHED ELEVATION OF 261.50 FEET.

LIGHTING CALCULATION SUMMARY					
LOCATION	AVERAGE	MINIMUM	MAXIMUM	AVG / MIN RATIO	MAX / MIN RATIO
PEDESTRIAN WALKWAYS	4.56 FC	0.90 FC	9.00 FC	5.07 : 1	10.00 : 1
ACCESS POINT	3.75 FC	2.10 FC	8.20 FC	1.79 : 1	3.90 : 1
DRIVE WAY	6.04 FC	1.10 FC	10.80 FC	5.49 : 1	9.82 : 1
PARKING AREA (COVERED)	4.40 FC	1.00 FC	9.00 FC	4.40 : 1	9.00 : 1

SYMBOL	DESCRIPTION
	PROPOSED CALCULATION AREA
	PROPOSED ISOMETRIC LINE
A (XX')	PROPOSED LIGHTING FIXTURE (MOUNTING HEIGHT)
	PROPOSED LIGHTING INTENSITY (FOOTCANDLES)
	PROPOSED AREA LIGHT
	PROPOSED BUILDING MOUNTED LIGHT

- GENERAL LIGHTING NOTES**
- THE LIGHTING LEVELS DEPICTED WITHIN THE PLAN SET ARE CALCULATED UTILIZING DATA OBTAINED FROM THE LISTED MANUFACTURER. ACTUAL ILLUMINATION LEVELS AND PERFORMANCE OF ANY PROPOSED LIGHTING FIXTURE MAY VARY DUE TO UNCONTROLLABLE VARIABLES SUCH AS WEATHER, VOLTAGE SUPPLY, LAMP TOLERANCE, EQUIPMENT SERVICE LIFE AND OTHER VARIABLE FIELD CONDITIONS.
 - WHERE APPLICABLE, THE EXISTING LIGHT LEVELS DEPICTED WITHIN THE PLAN SET SHALL BE CONSIDERED APPROXIMATE. THE EXISTING LIGHT LEVELS ARE BASED ON FIELD OBSERVATIONS AND THE MANUFACTURER'S DATA OF THE ASSUMED OR MOST SIMILAR LIGHTING FIXTURE MODEL.
 - UNLESS NOTED ELSEWHERE WITHIN THIS PLAN SET, THE LIGHT LOSS FACTORS USED IN THE LIGHTING ANALYSIS ARE AS FOLLOWS:
 - LIGHT EMITTING DIODES (LED): 0.85
 - HIGH PRESSURE SODIUM: 0.72
 - METAL HALIDE: 0.72
 - THE CONTRACTOR SHALL NOTIFY STONEFIELD ENGINEERING & DESIGN, LLC. IN WRITING, PRIOR TO THE START OF CONSTRUCTION, OF ANY PROPOSED LIGHTING LOCATIONS THAT CONFLICT WITH EXISTING PROPOSED DRAINAGE, UTILITY, OR OTHER IMPROVEMENTS. THE CONTRACTOR IS RESPONSIBLE TO PREPARE A WIRING PLAN AND PROVIDE ELECTRIC SERVICE TO ALL PROPOSED LIGHTING FIXTURES. THE CONTRACTOR IS REQUIRED TO PREPARE AN AS-BUILT PLAN OF WIRING AND PROVIDE COPIES TO THE OWNER AND STONEFIELD ENGINEERING & DESIGN, LLC.



ISSUE	DATE	BY	DESCRIPTION
5	03/04/2021	SPM	FOR MUNICIPAL RESUBMISSION
4	07/17/2020	MEM	FOR MUNICIPAL SUBMISSION
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1	09/20/2019	TL	FOR MUNICIPAL SUBMISSION

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 Phone 201.340.4468 · Fax 201.340.4472

PRELIMINARY AND FINAL SITE PLAN

21 & 25 GROVE ASSOCIATES, LLC.

PROPOSED RESIDENTIAL DEVELOPMENT

BLOCK 1702, LOT 22
 21 GROVE AVENUE (C.R. 639)
 TOWNSHIP OF YERONA
 ESSEX COUNTY, NEW JERSEY

MATTHEW J. SECKLER, P.E.
 NEW JERSEY LICENSE No. 48721
 LICENSED PROFESSIONAL ENGINEER

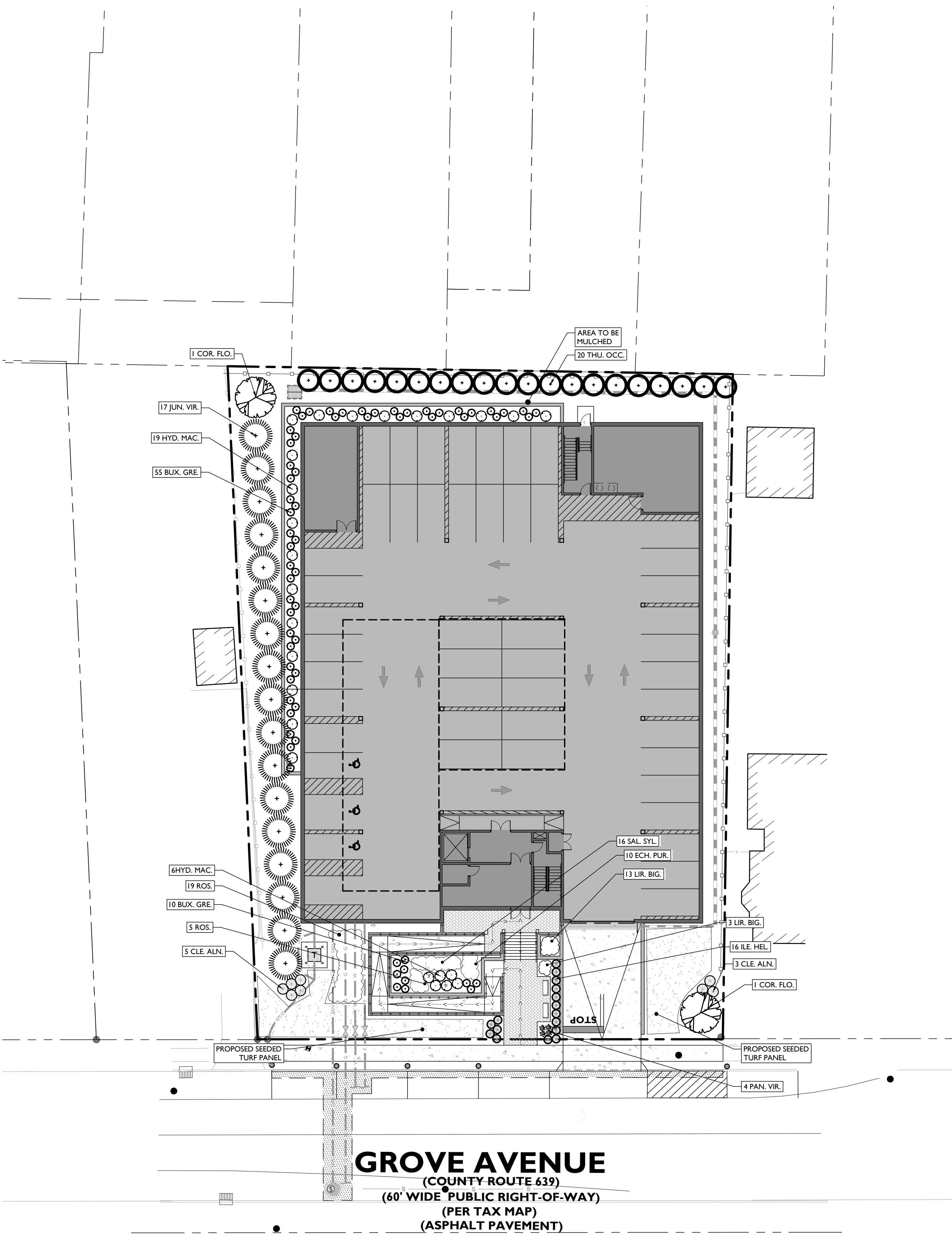
STONEFIELD
 engineering & design

SCALE: 1" = 20' PROJECT ID: T-19059

TITLE:
LIGHTING PLAN

DRAWING:
C-7

T:\2019\190571 AND 25 GROVE ASSOCIATES, LLC - 31 GROVE AVENUE, VERONA, NJ\CAD\DWG\010\11-12.LANDSC.DWG



GROVE AVENUE
 (COUNTY ROUTE 639)
 (60' WIDE PUBLIC RIGHT-OF-WAY)
 (PER TAX MAP)
 (ASPHALT PAVEMENT)

PLANT SCHEDULE					
PLANT KEY	QUANTITY	BOTANICAL NAME	COMMON NAME	SIZE	REMARKS
DECIDUOUS TREES					
COR. FLO.	2	CORNUS FLORIDA 'APPALACHIAN JOY'	WHITE FLOWERING DOGWOOD	2.5"-3" CAL	B&B (LOW BRANCHED) (FALL DIGGING HAZARD)
EVERGREEN TREES					
THU. OCC.	20	THUJA OCCIDENTALIS 'NIGRA'	DARK AMERICAN ARBORVITAE	8' - 10' HEIGHT	B&B
JUN. VIR.	17	JUNIPERUS VIRGINIANA	EASTERN RED-CEDAR	8' - 10' HEIGHT	B&B
EVERGREEN SHRUBS					
BUX. GRE.	64	BUXUS X 'GREEN VELVET'	GREEN VELVET BOXWOOD	18"-24"	B&B
ILE. HEL.	16	ILEX CRENATA 'HELLER'	HELLER HOLLY	24"-36"	CONT.
DECIDUOUS SHRUBS					
HYD. MAC.	26	HYDRANGEA MACROPHYLLA 'ENDLESS SUMMER'	BIGLEAF HYDRANGEA	24"-30"	5 GAL
ROS.	24	ROSA X CARPET ROSE	CARPET ROSE	3 GAL.	CONT. 36" O.C.
CLE. ALN.	8	CLETHRA ALNIFOLIA	SUMMERSWEET	24"-36"	B&B
GROUND COVERS					
ECH. PUR.	10	ECHINACEA PURPUREA	CONE FLOWER	2 GAL.	CONT. 18" O.C.
SAL. SYL.	16	SALVIA X SYLVESTRIS 'SNOW HILL'	MEADOW SAGE	2 GAL.	CONT. 18" O.C.
GRASSES					
LIR. BIG.	16	LIRIOPE SPICATA 'BIG BLUE'	BIG BLUE LILYTURF	1 GAL.	CONT. 18" O.C.
PAN. VIR.	4	PANICUM VIRGATUM 'SHANENDOAH'	RED SWITCH GRASS	2 GAL.	CONT. 30" O.C.

NOTE: IF ANY DISCREPANCIES OCCUR BETWEEN AMOUNTS SHOWN ON THE LANDSCAPE PLAN AND WITHIN THE PLANT LIST, THE PLAN SHALL DICTATE.

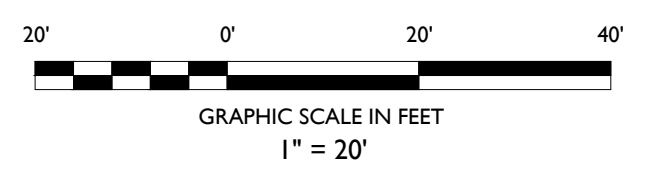
LANDSCAPING AND BUFFER REQUIREMENTS		
CODE SECTION	REQUIRED	PROPOSED
§ 150-11.1 (A) BUFFER ZONE REQUIREMENTS	ALL COMMERCIAL, INDUSTRIAL, OFFICE, APARTMENT, HEALTH CARE, INSTITUTIONAL, OR A PUBLIC USE ADJOINING OR ABUTTING A RESIDENTIAL ZONE, AN SHALL PROVIDE A BUFFER ZONE IN ACCORDANCE WITH THE STANDARDS SET FORTH BELOW: 5% OF LOT DEPTH MINIMUM 5 FT MAXIMUM 30 FT	12.0 FT*
§ 150-11.1 (B) BUFFER ZONE REQUIREMENTS	NO PRINCIPAL OR ACCESSORY STRUCTURE, OTHER THAN AS MAY BE PROVIDED HEREIN, NOR ANY OFF-STREET PARKING OR LOADING AREAS OR OTHER USE SHALL BE PERMITTED WITHIN THE BUFFER ZONE.	COMPLIES
§ 150-11.2 (B) GENERAL LANDSCAPING REQUIREMENTS	ANY USE WHICH IS NOT CONDUCTED WITHIN A COMPLETELY ENCLOSED BUILDING, SUCH AS REQUIRED OFF-STREET PARKING, SHALL BE SCREENED BY A SOLID OR CLOSELY WOVEN FENCE OR BY EVERGREEN HEDGES OR SHRUBS SPACED AT INTERVALS OF NOT MORE THAN FIVE FEET, LOCATED AND MAINTAINED IN GOOD CONDITION, WITHIN TEN FEET OF THE PROPERTY LINE OR THE ZONE DISTRICT BOUNDARY LINE.	COMPLIES
§ 150-11.4 (A) USE OF AREAS RESTRICTED	A PLANTED AREA AND A PLANTED BUFFER AREA REQUIRED BY THIS CHAPTER SHALL NOT BE USED FOR ANY BUILDINGS, STRUCTURES, PAVING OR PARKING OR FOR THE SALE, DISPLAY, STORAGE OR LEASING OF MATERIALS OR FOR ANY OTHER USE OTHER THAN A PLANTED AREA OR A PLANTED BUFFER AREA EXCEPT DETENTION BASINS	COMPLIES
§ 150-11.6 (B) DESIGN CRITERIA	THE PLANTED AREA OR REQUIRED PLANTED BUFFER AREA SHALL BE PLANTED WITH APPROVED PLANT MATERIAL WITH SUFFICIENT ORGANIC SANITARY MATERIAL, TOPSOIL, PEAT MOSS AND THE LIKE, SO THAT THE SAME SHALL BE LIKELY TO THRIVE. MINIMUM DEPTH OF TOPSOIL IN ALL TURF AREAS SHALL BE FOUR INCHES.	COMPLIES

* REFER TO THE TABLE OF LAND USE AND ZONING ON SHEET C-4



LANDSCAPING NOTES

- THE CONTRACTOR SHALL RESTORE ALL DISTURBED GRASS AND LANDSCAPED AREAS TO MATCH EXISTING CONDITIONS UNLESS INDICATED OTHERWISE WITHIN THE PLAN SET.
- THE CONTRACTOR SHALL RESTORE ALL DISTURBED LAWN AREAS WITH A MINIMUM 4 INCH LAYER OF TOPSOIL AND SEED.
- THE CONTRACTOR SHALL RESTORE MULCH AREAS WITH A MINIMUM 3 INCH LAYER OF MULCH.
- 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.
- THE CONTRACTOR IS REQUIRED TO LOCATE ALL SPRINKLER HEADS IN AREA OF LANDSCAPING DISTURBANCE PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL RELOCATE SPRINKLER HEADS AND LINES IN ACCORDANCE WITH OWNER'S DIRECTION WITHIN AREAS OF DISTURBANCE.
- THE CONTRACTOR SHALL ENSURE THAT ALL DISTURBED LANDSCAPED AREAS ARE GRADED TO MEET FLUSH AT THE ELEVATION OF WALKWAYS AND TOP OF CURB ELEVATIONS EXCEPT UNLESS INDICATED OTHERWISE WITHIN THE PLAN SET. NO ABRUPT CHANGES IN GRADE ARE PERMITTED IN DISTURBED LANDSCAPING AREAS.
- CONTRACTOR TO MAINTAIN A MINIMUM DEPTH OF 4 INCHES OF TOPSOIL IN ALL TURF AREAS.



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, DRIP IRRIGATION AND OTHER WATER CONSERVATION TECHNIQUES SUCH AS RAIN SENSORS SHALL BE IMPLEMENTED. CONTRACTOR TO VERIFY MAXIMUM ON SITE DYNAMIC WATER 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, HEADS, BACKFLOW PREVENTION, METERS, CONTROLLERS, AND SLEEVES WITHIN HARDSCAPE AREAS.

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ISSUE		

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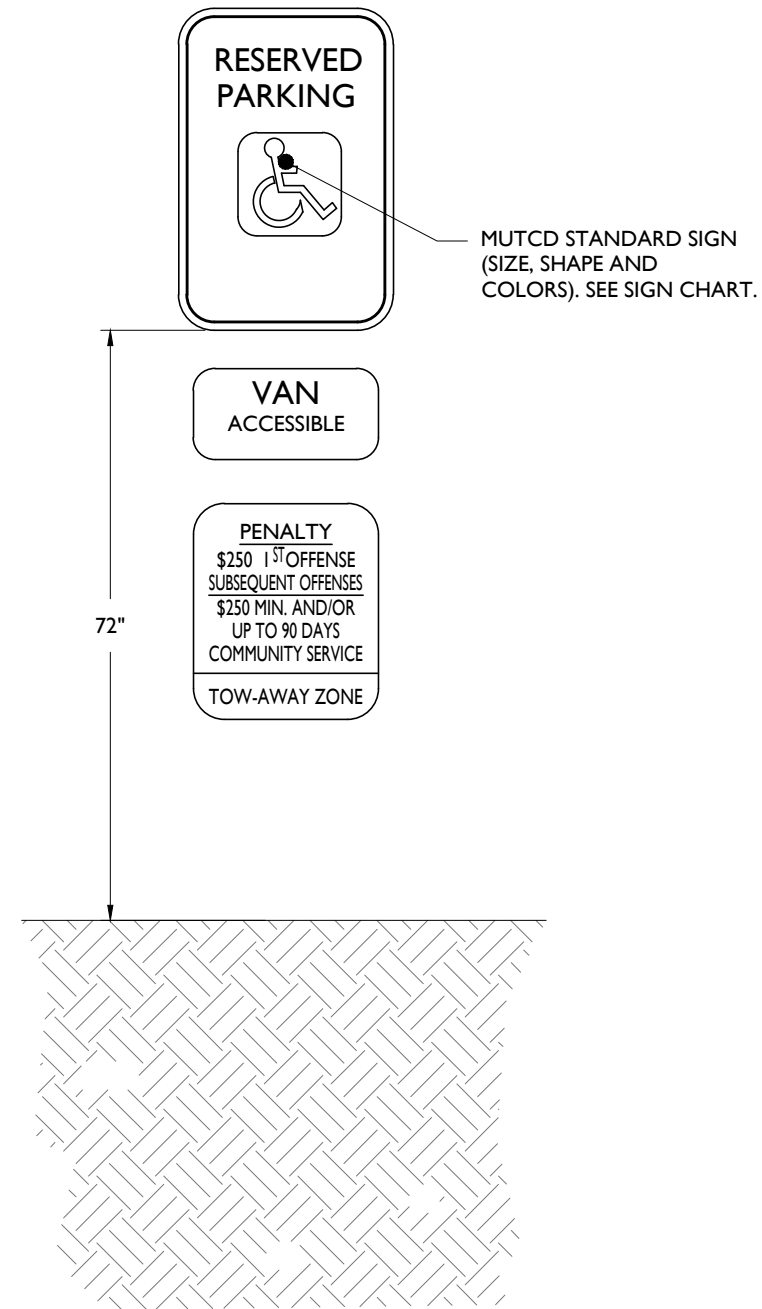
SCALE: 1" = 20' PROJECT ID: T-19059

TITLE:
LANDSCAPING PLAN

DRAWING:
C-9

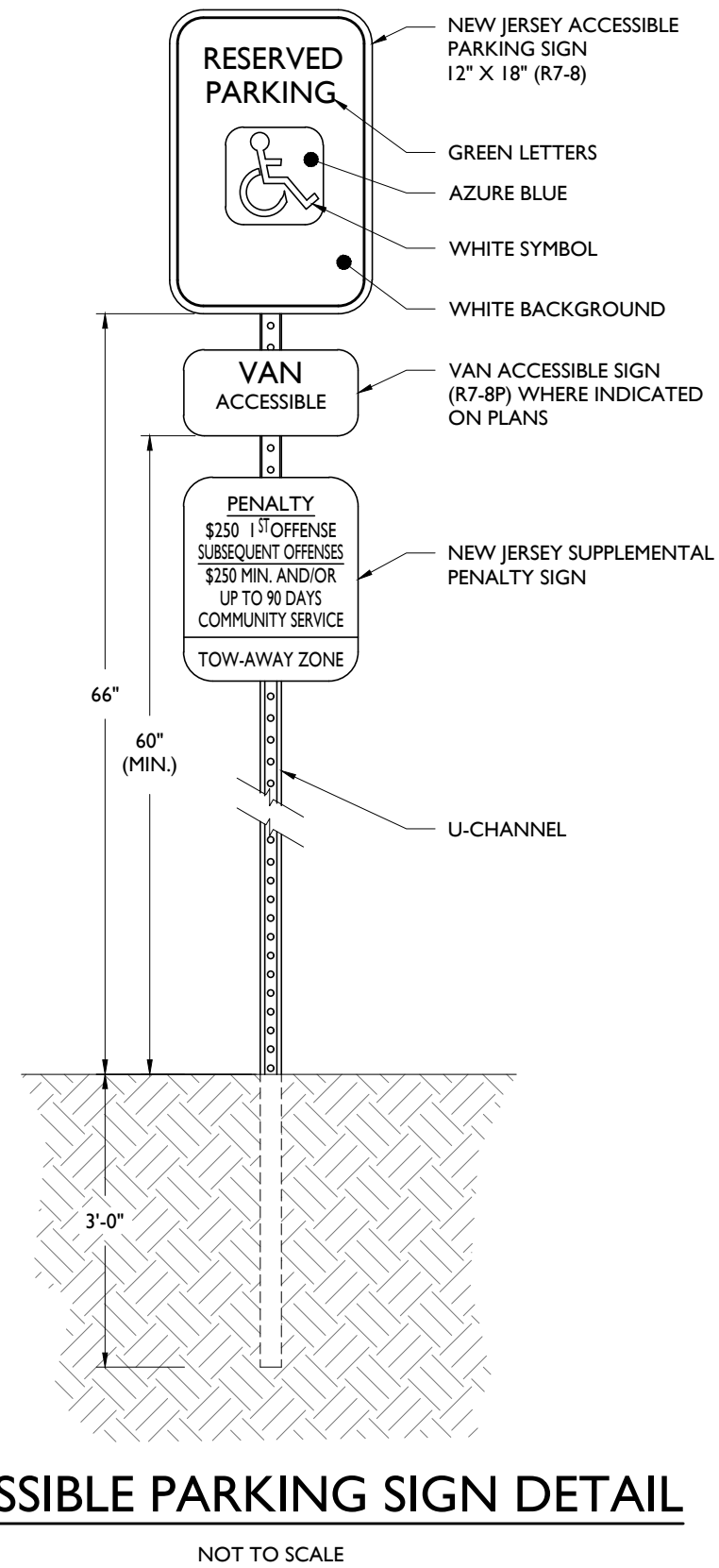
M.U.T.C.D. NUMBER	TEXT	COLOR		SIZE OF SIGN (WIDTH X HEIGHT)	TYPE OF MOUNT
		LEGEND	BACKGROUND		
STOP SIGN (R1-1)		RED	WHITE	36"x36"	GROUND

NOTE:
 1. ALL SIGNS SHALL BE IN ACCORDANCE WITH THE FEDERAL HIGHWAY ADMINISTRATION (FHWA) MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), EXCEPT AS NOTED.
 2. ALL SIGNS SHALL BE MOUNTED AS TO NOT OBSTRUCT THE SHAPE OF "STOP" (R1-1) AND "YIELD" (R1-2) SIGNS.



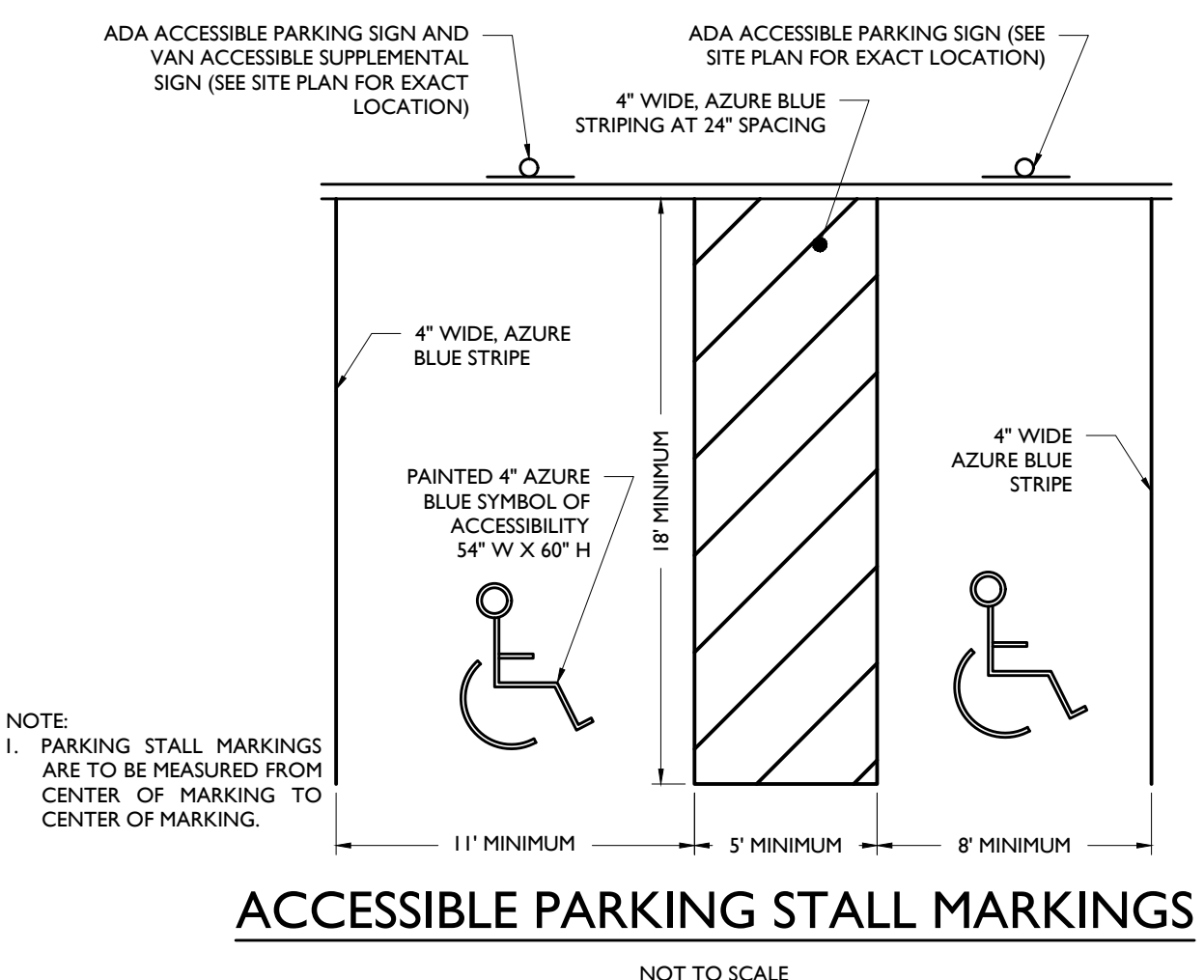
SIGN TABLE & WALL MOUNTED ADA POST DETAIL
NOT TO SCALE

1



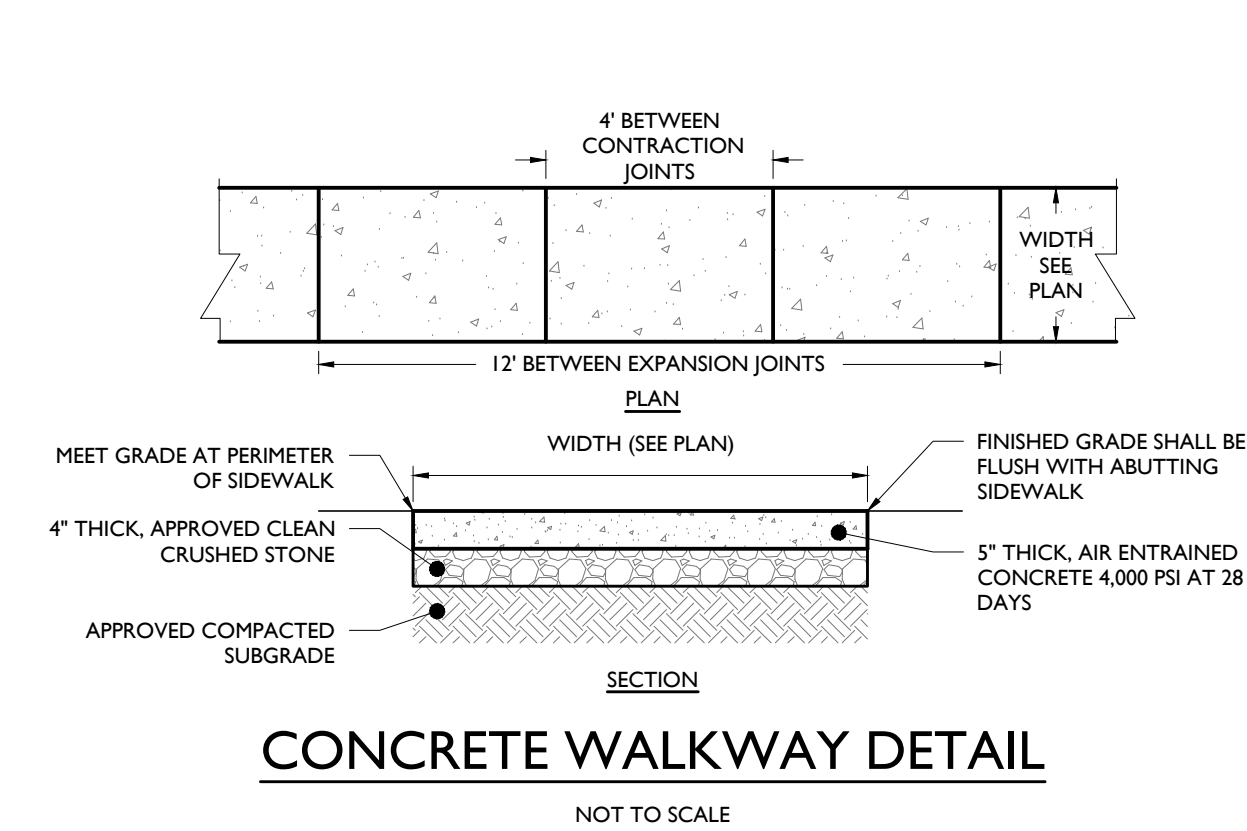
ACCESSIBLE PARKING SIGN DETAIL
NOT TO SCALE

2



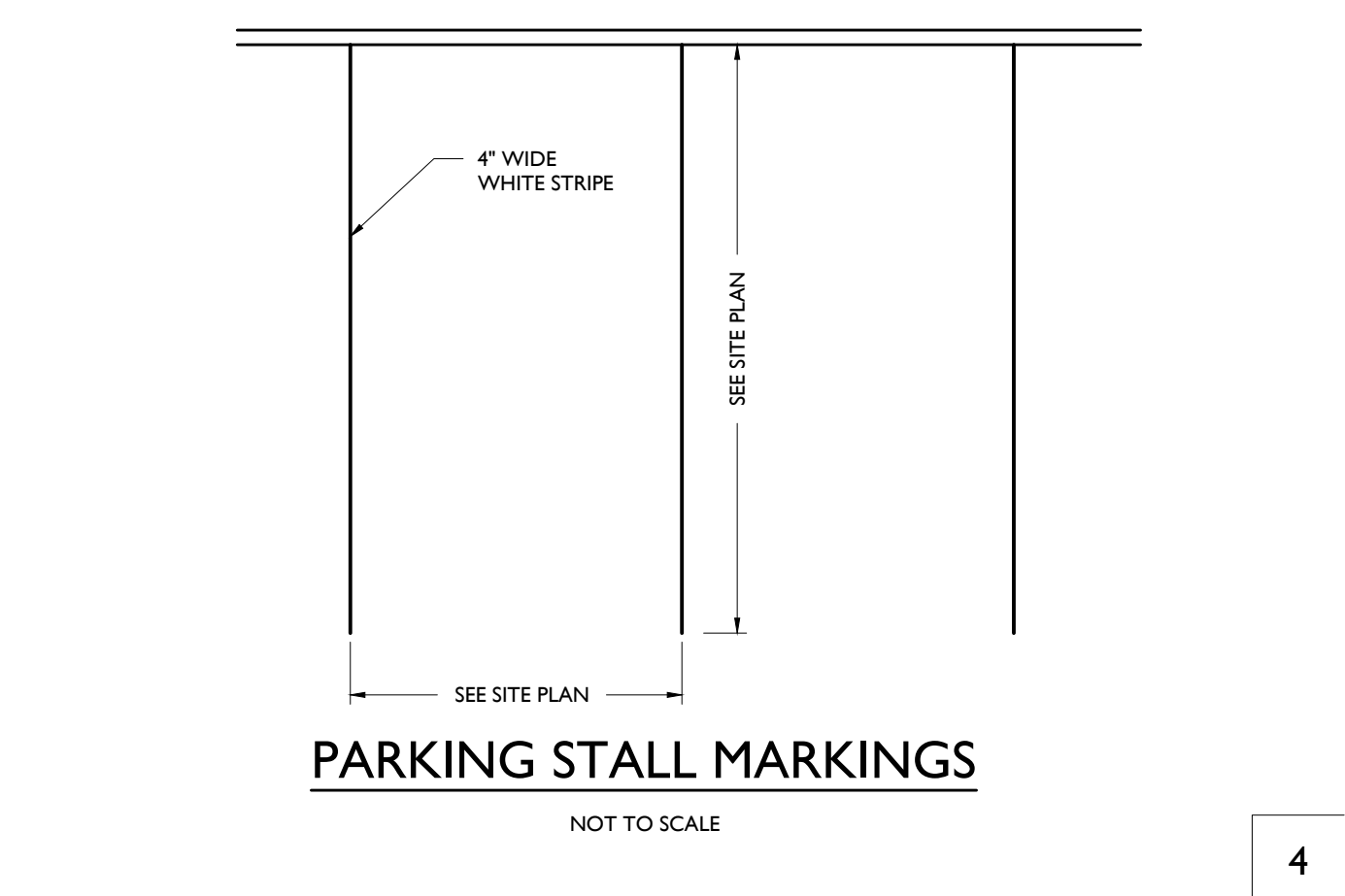
ACCESSIBLE PARKING STALL MARKINGS
NOT TO SCALE

3



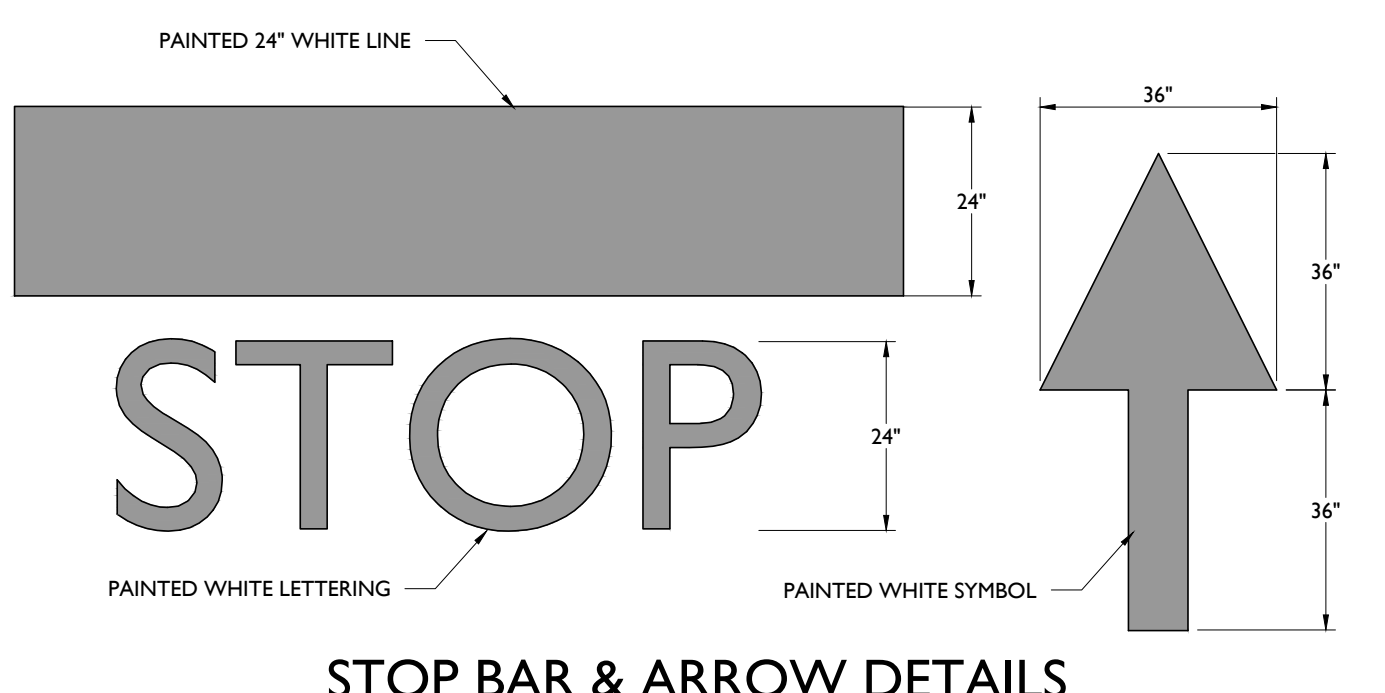
CONCRETE WALKWAY DETAIL
NOT TO SCALE

5



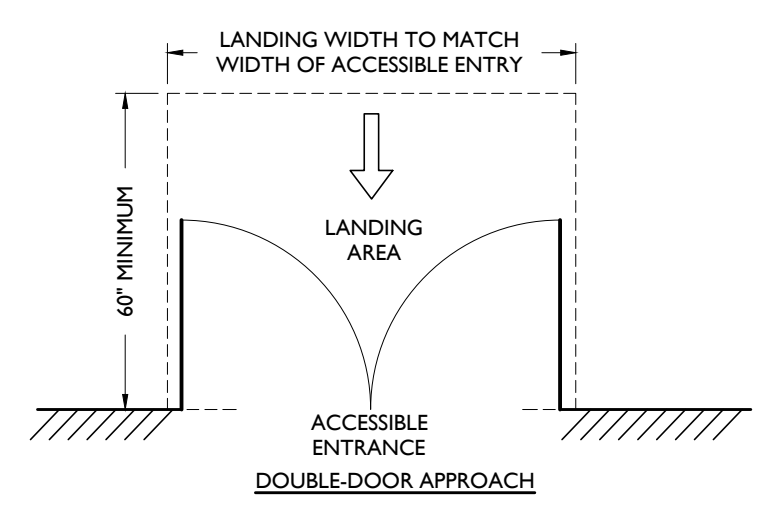
PARKING STALL MARKINGS
NOT TO SCALE

4



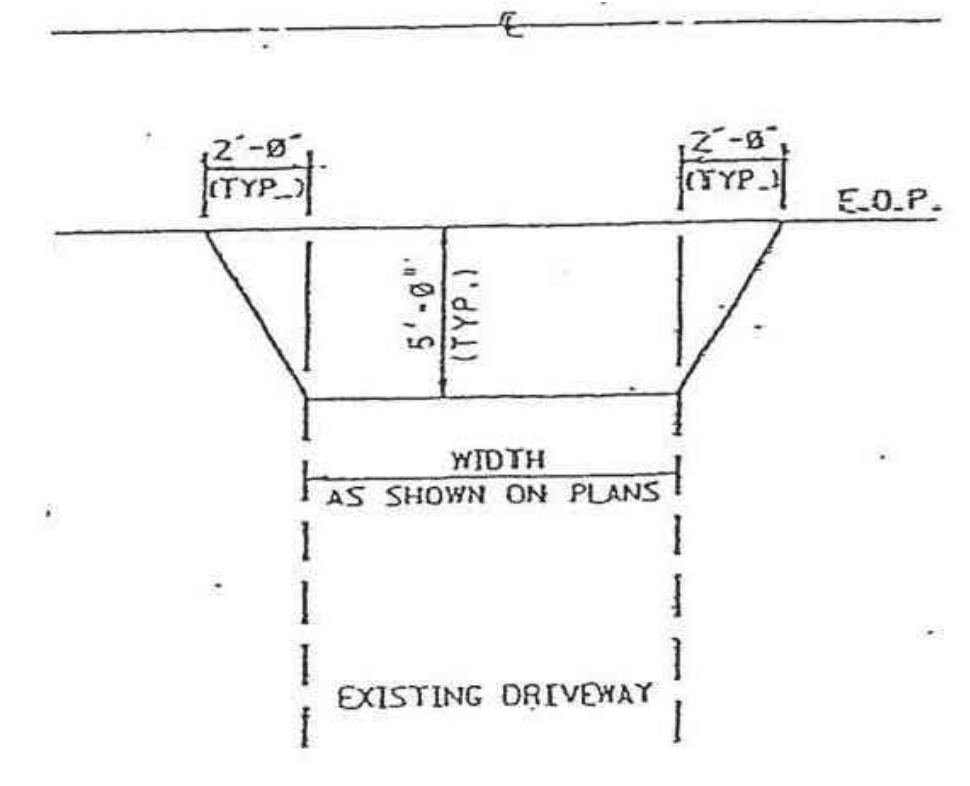
STOP BAR & ARROW DETAILS
NOT TO SCALE

6



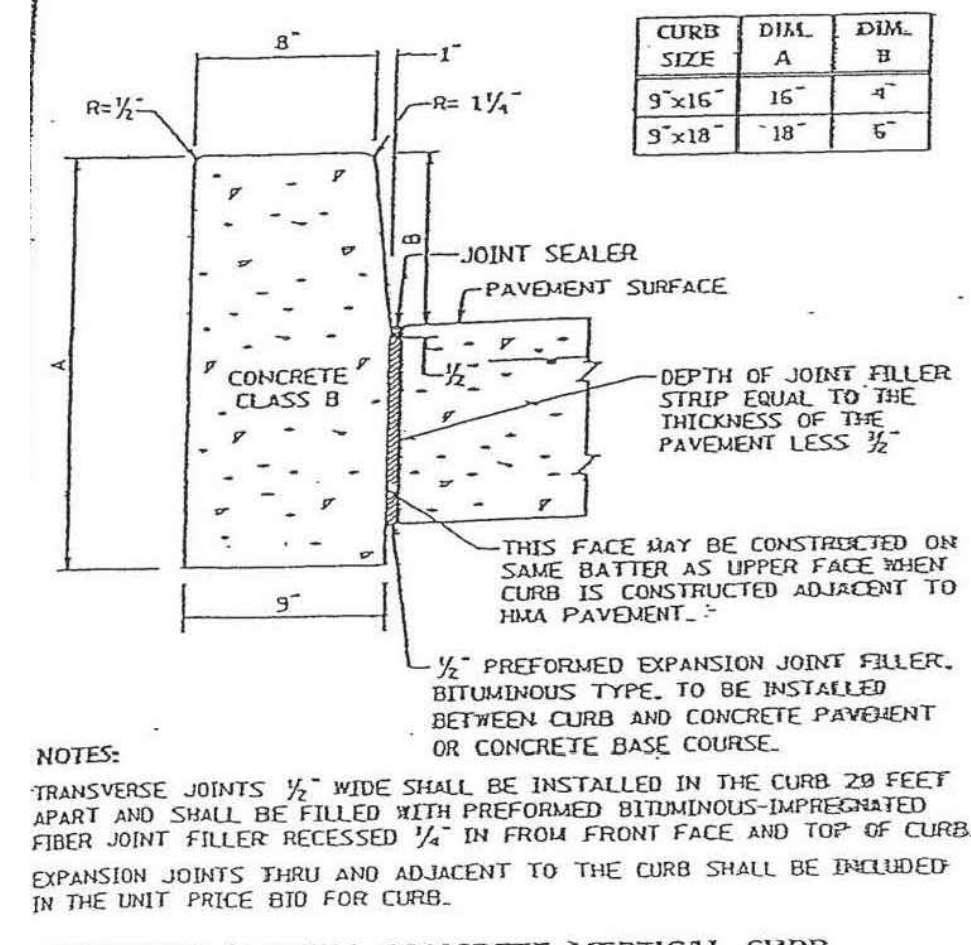
ACCESSIBLE ENTRANCE LANDING DETAIL
NOT TO SCALE

7



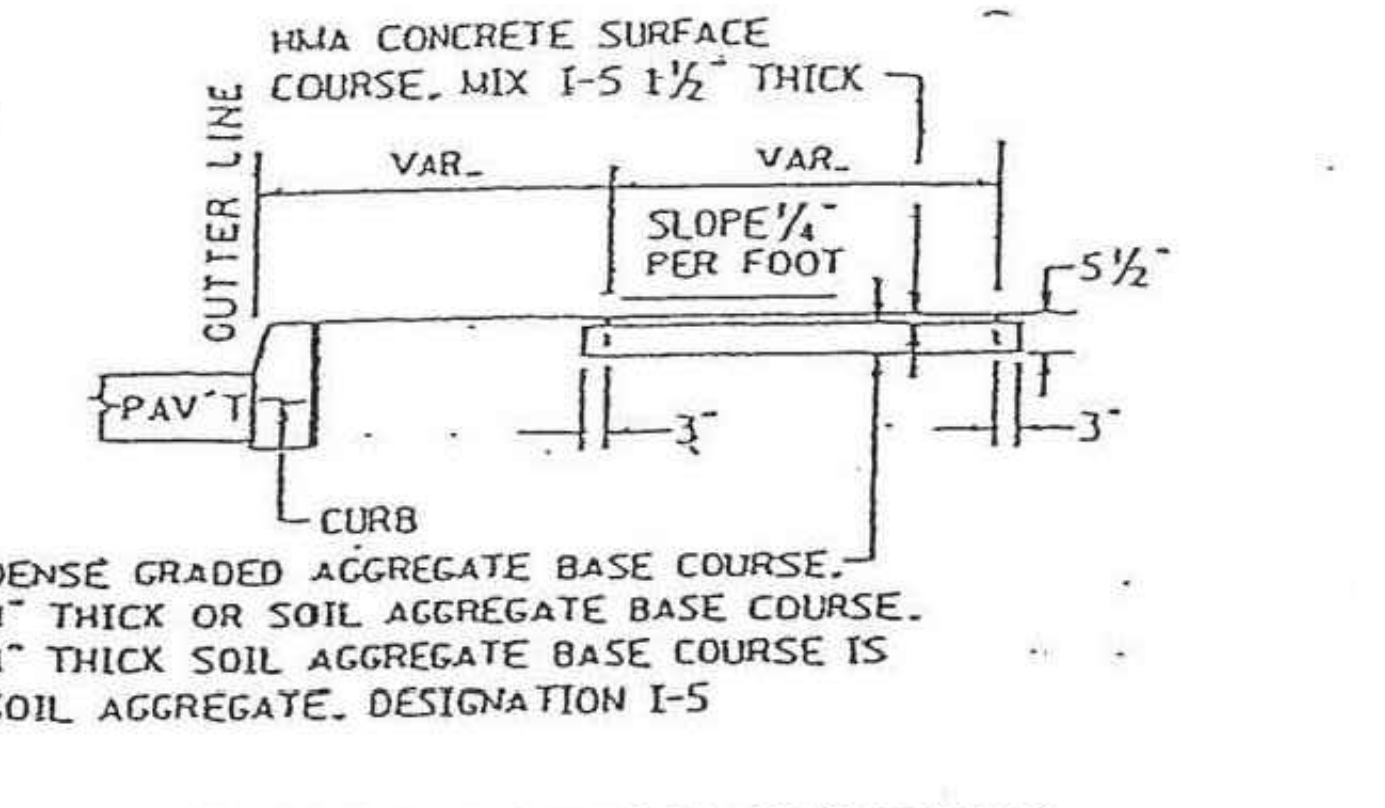
ESSEX COUNTY DRIVEWAY DETAIL
NOT TO SCALE

8



ESSEX COUNTY CURB DETAIL
NOT TO SCALE

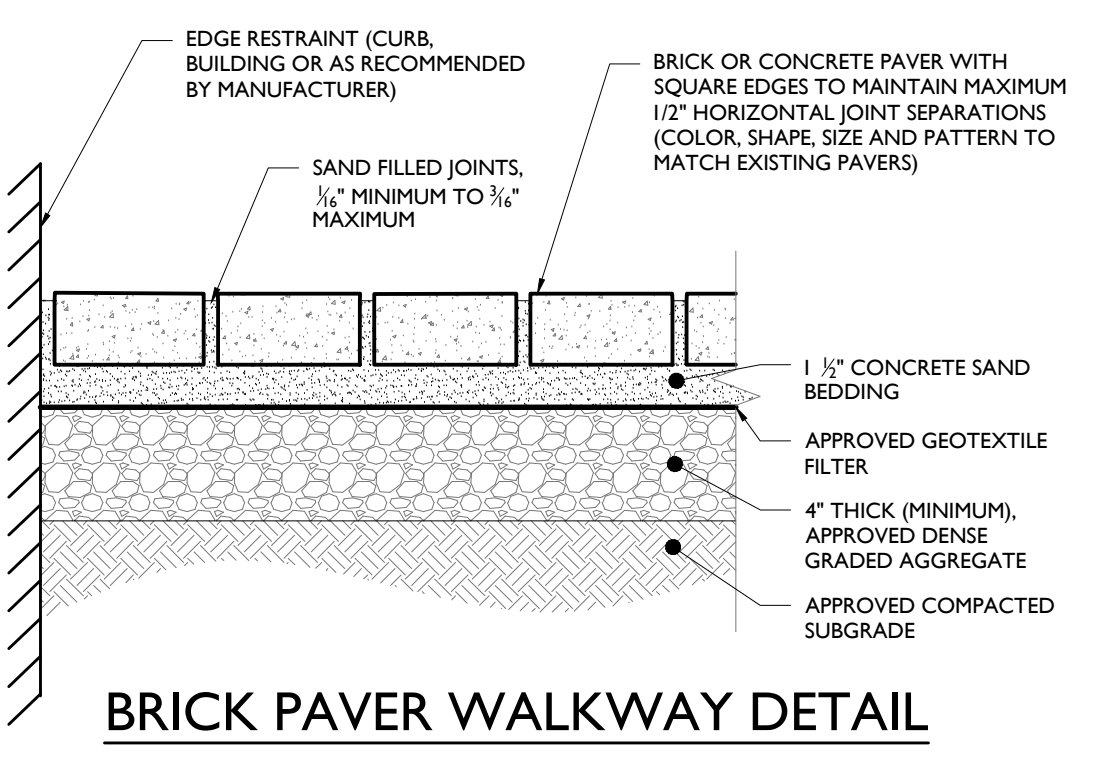
9



HMA SIDEWALK, 5 1/2" THICK
ESSEX COUNTY SIDEWALK DETAIL

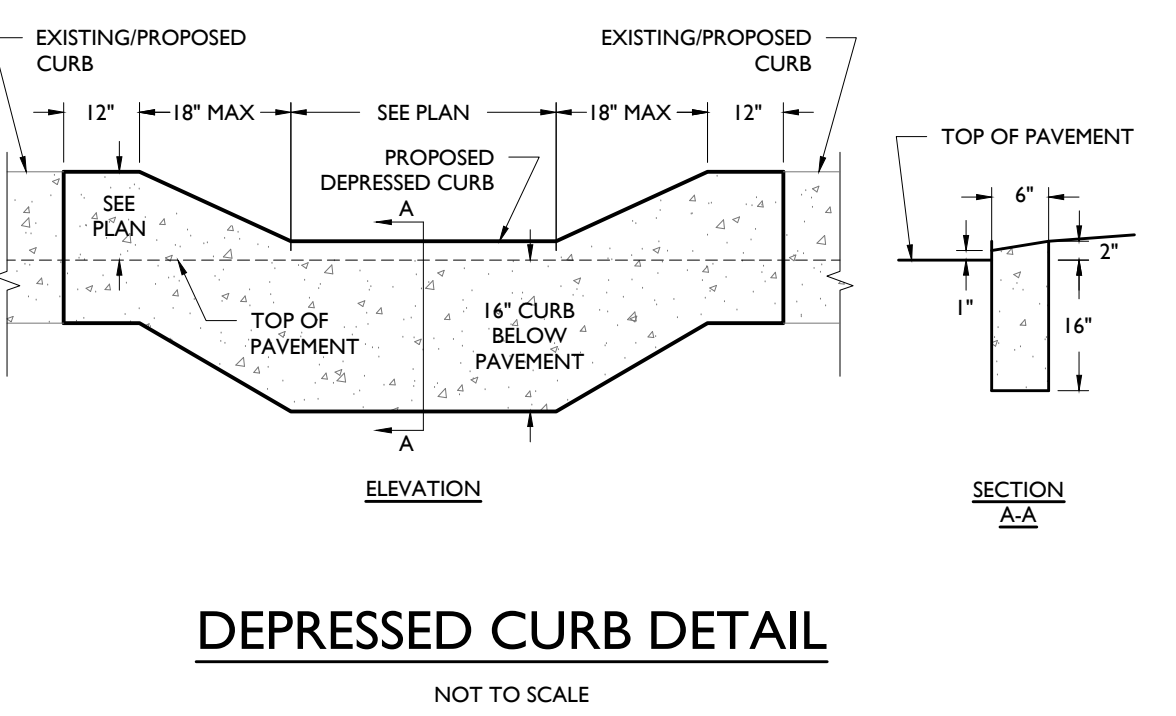
CD-607-1.2

10



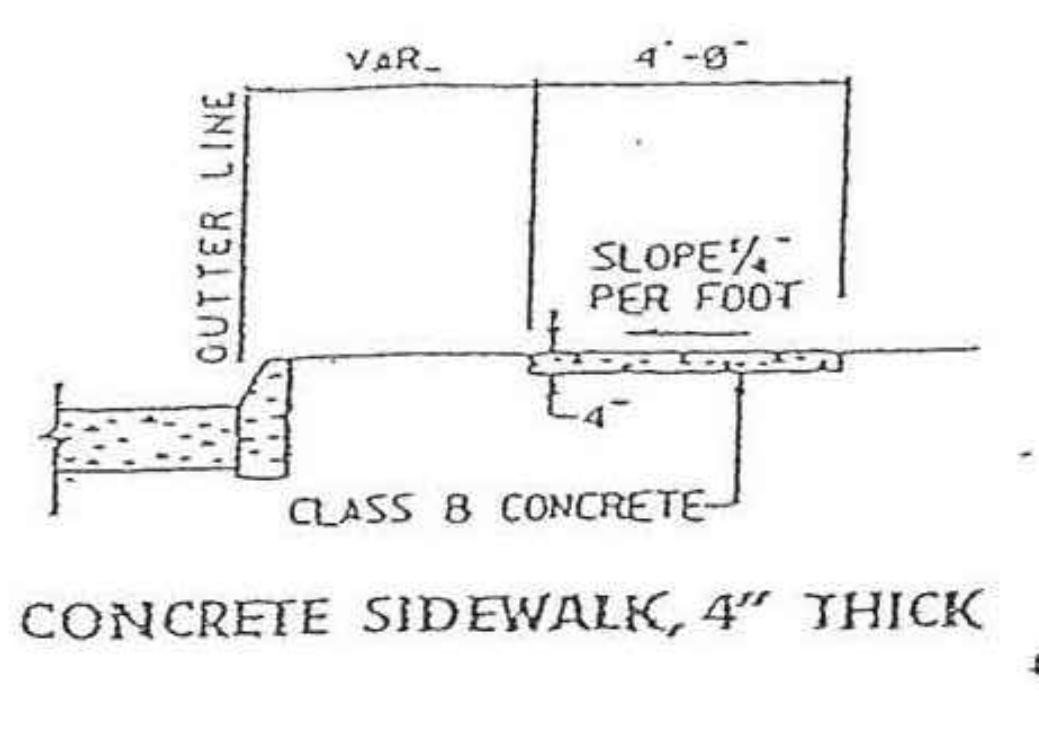
BRICK PAVER WALKWAY DETAIL
NOT TO SCALE

11



DEPRESSED CURB DETAIL
NOT TO SCALE

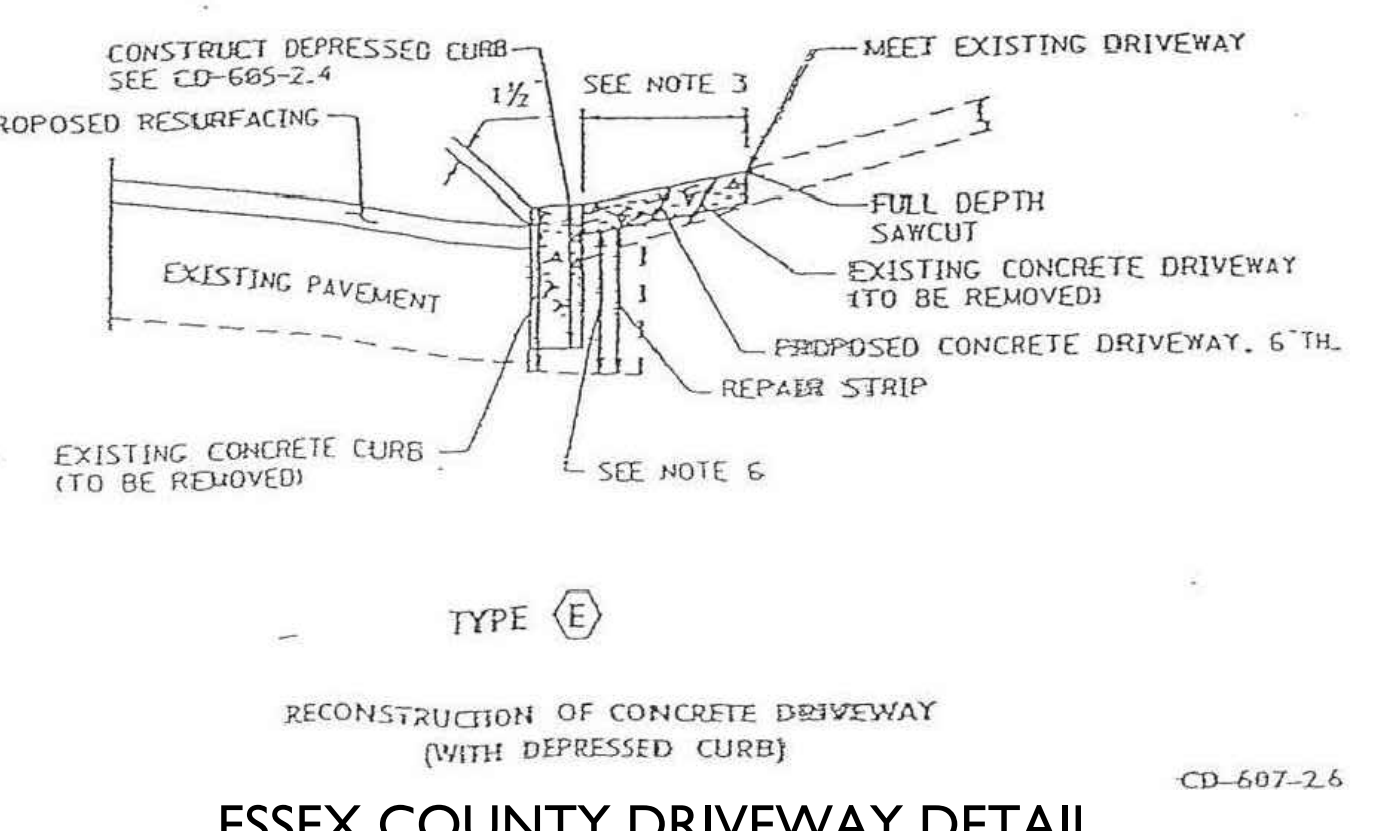
12



CONCRETE SIDEWALK, 4" THICK
ESSEX COUNTY SIDEWALK DETAIL

CD-607-1.1

13



RECONSTRUCTION OF CONCRETE DRIVEWAY (WITH DEPRESSED CURB)
ESSEX COUNTY DRIVEWAY DETAIL

CD-607-2.6

14

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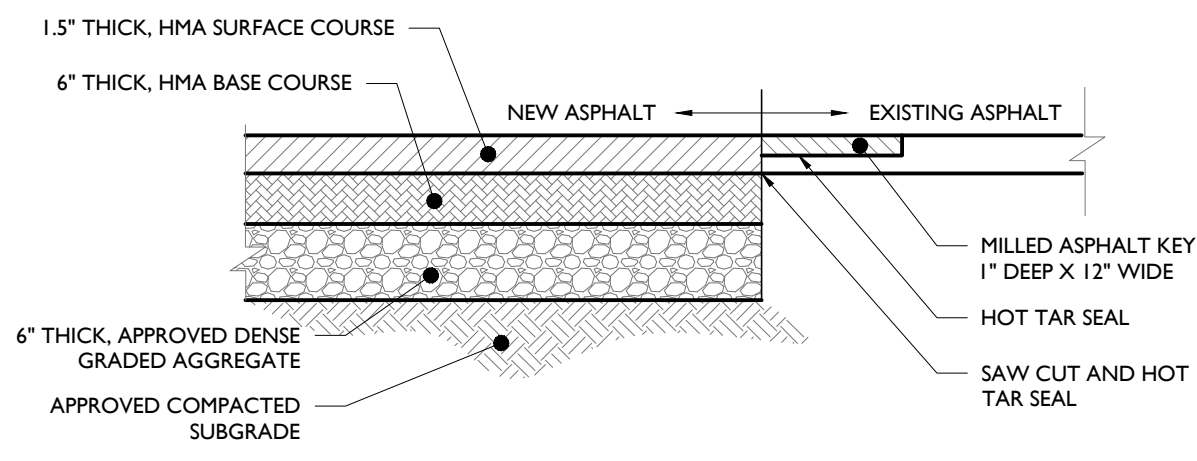
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SCALE: AS SHOWN PROJECT ID: T-19059

TITLE:
CONSTRUCTION DETAILS

DRAWING:

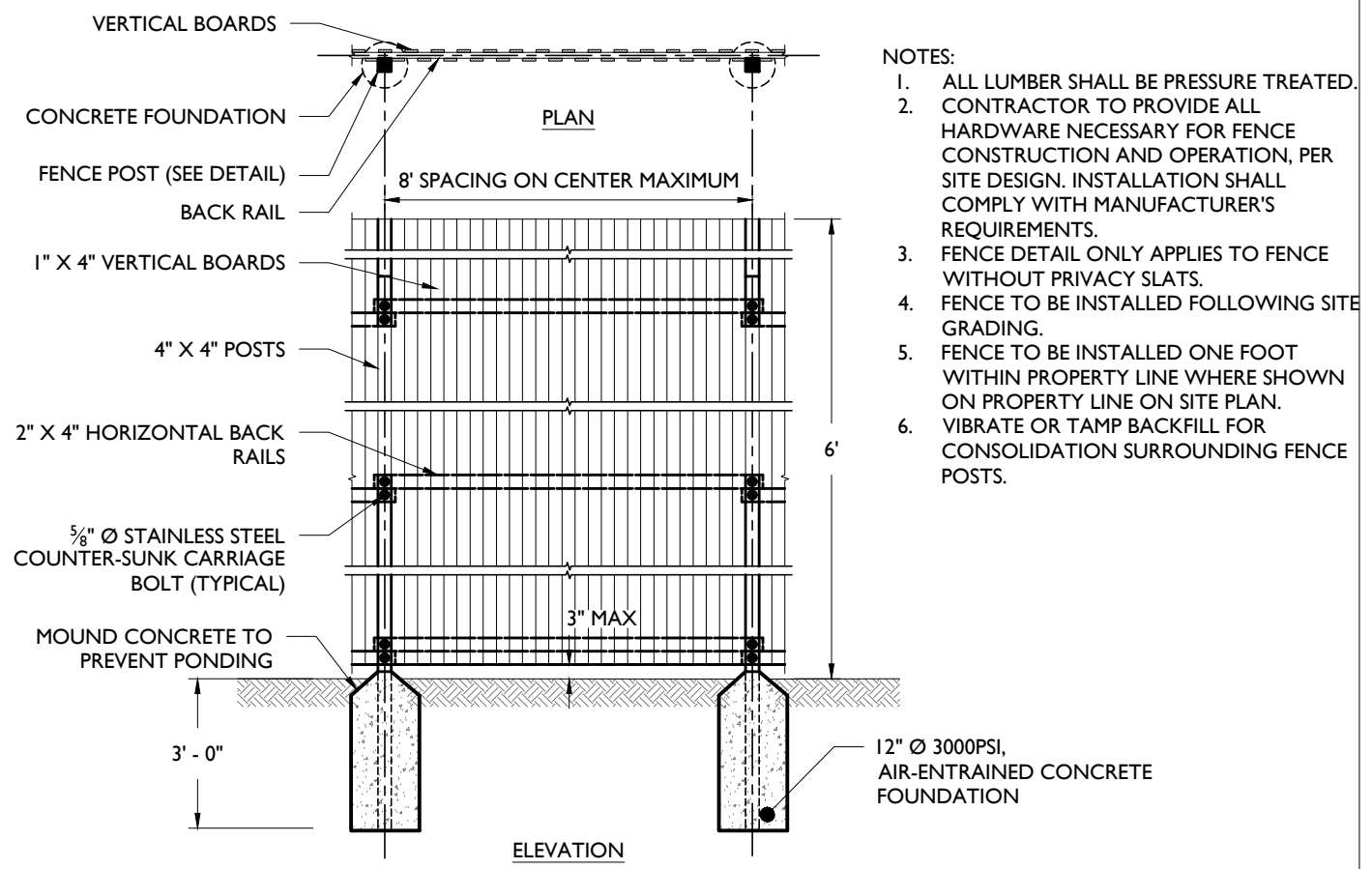
C-11



FULL DEPTH ASPHALT PAVEMENT DETAIL

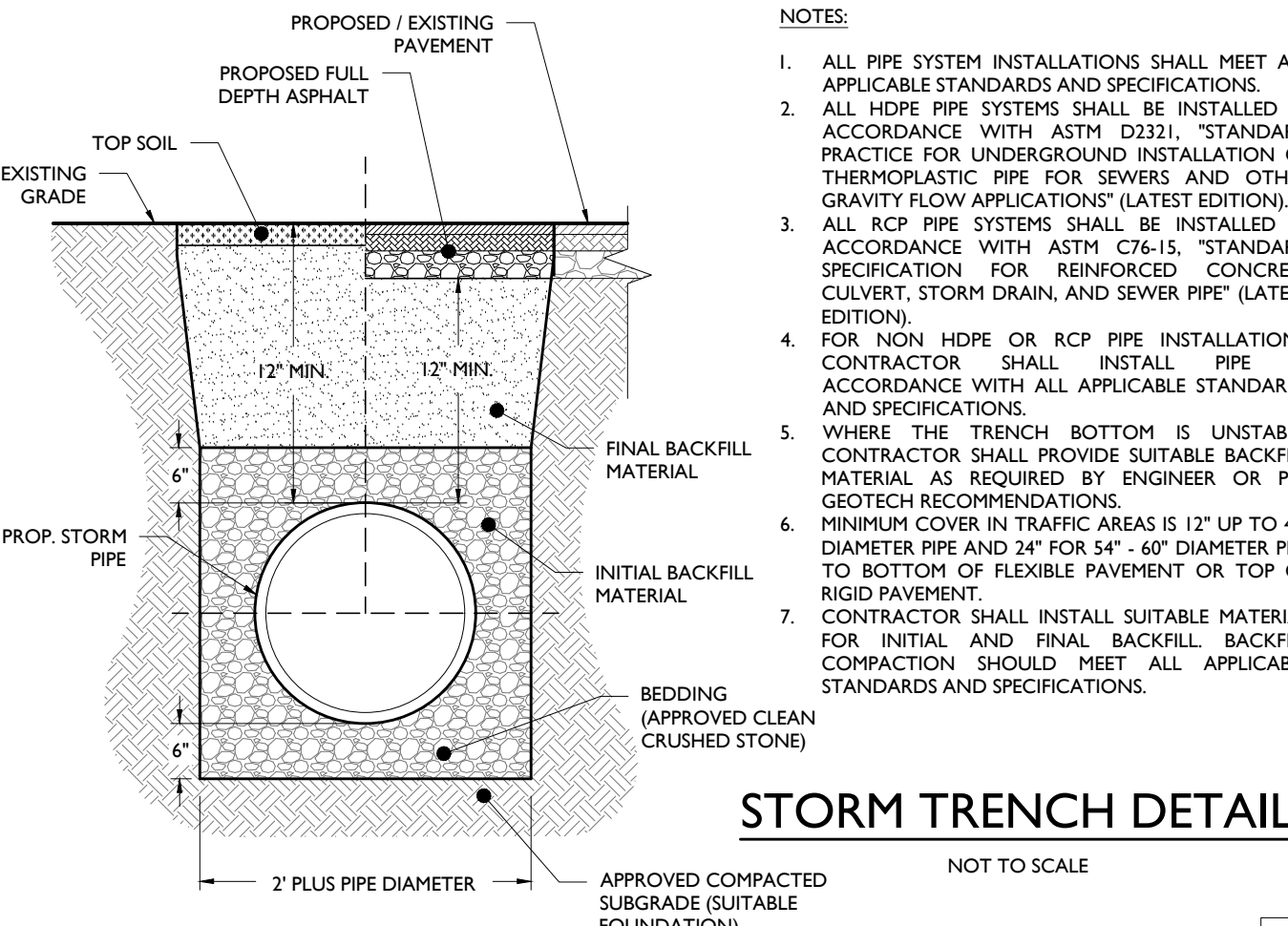
NOTE: HMA MIX AND DENSE GRADED AGGREGATE SHALL CONFORM TO STATE DEPARTMENT OF TRANSPORTATION SPECIFICATIONS.

NOT TO SCALE



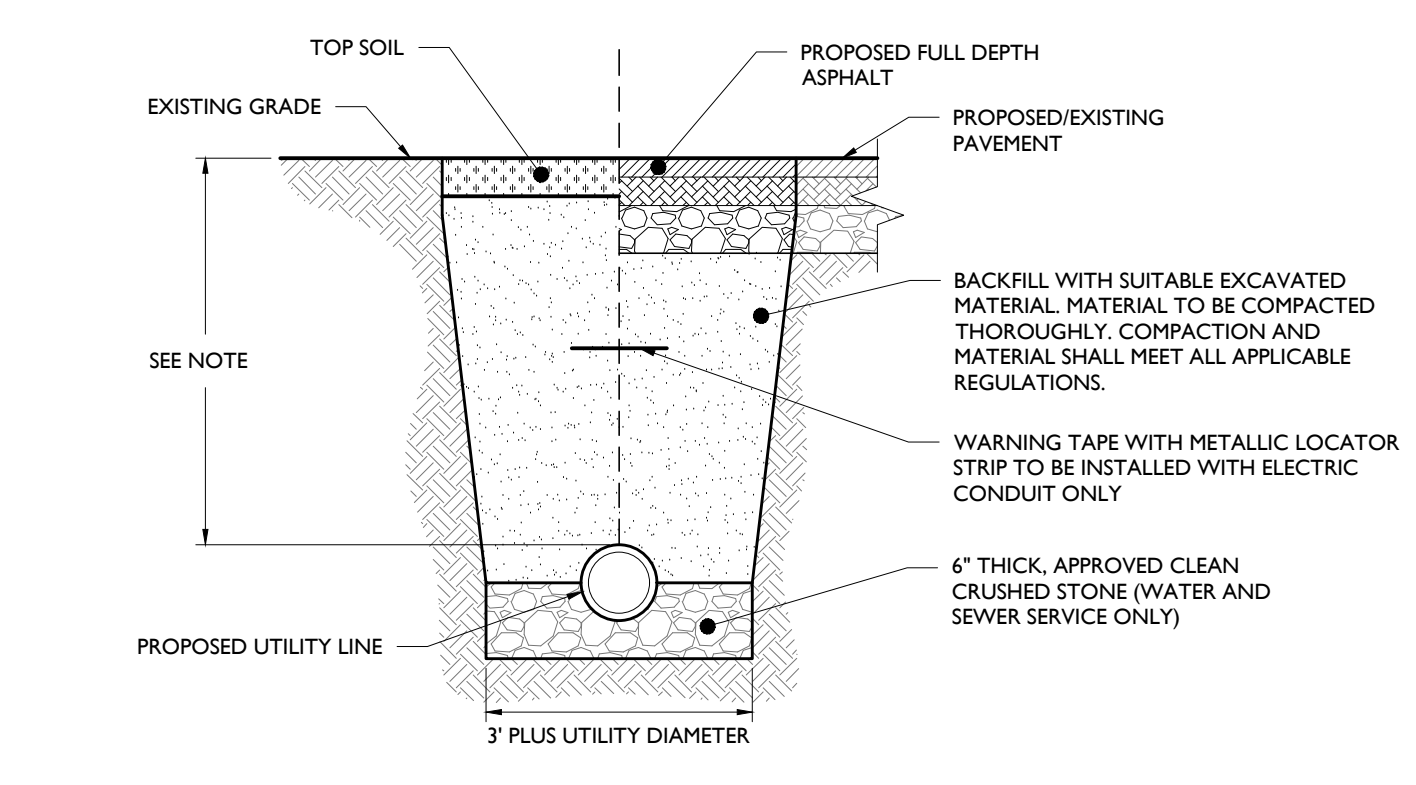
BOARD ON BOARD FENCE DETAIL

NOT TO SCALE



STORM TRENCH DETAIL

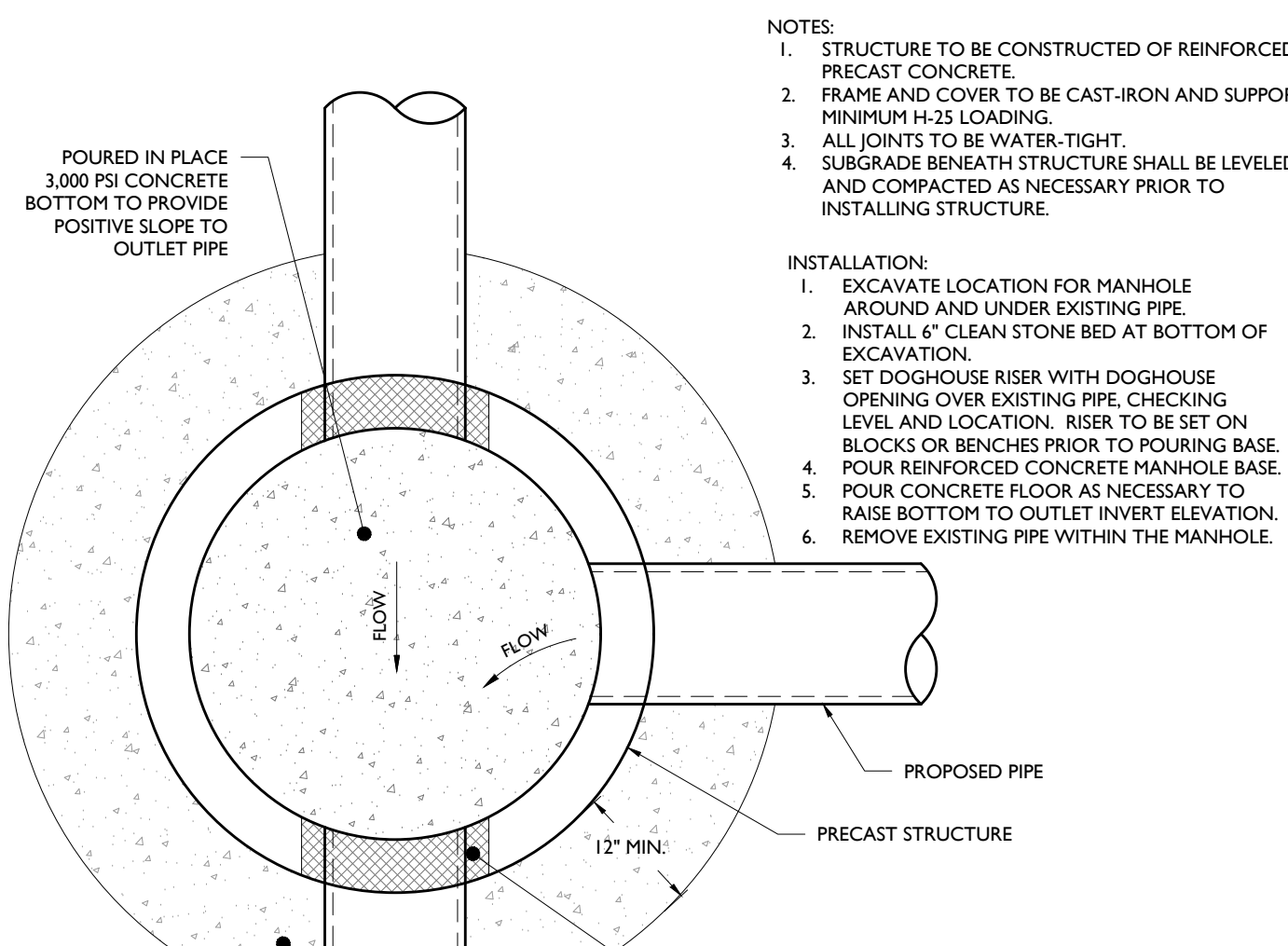
NOT TO SCALE



UTILITY TRENCH DETAIL

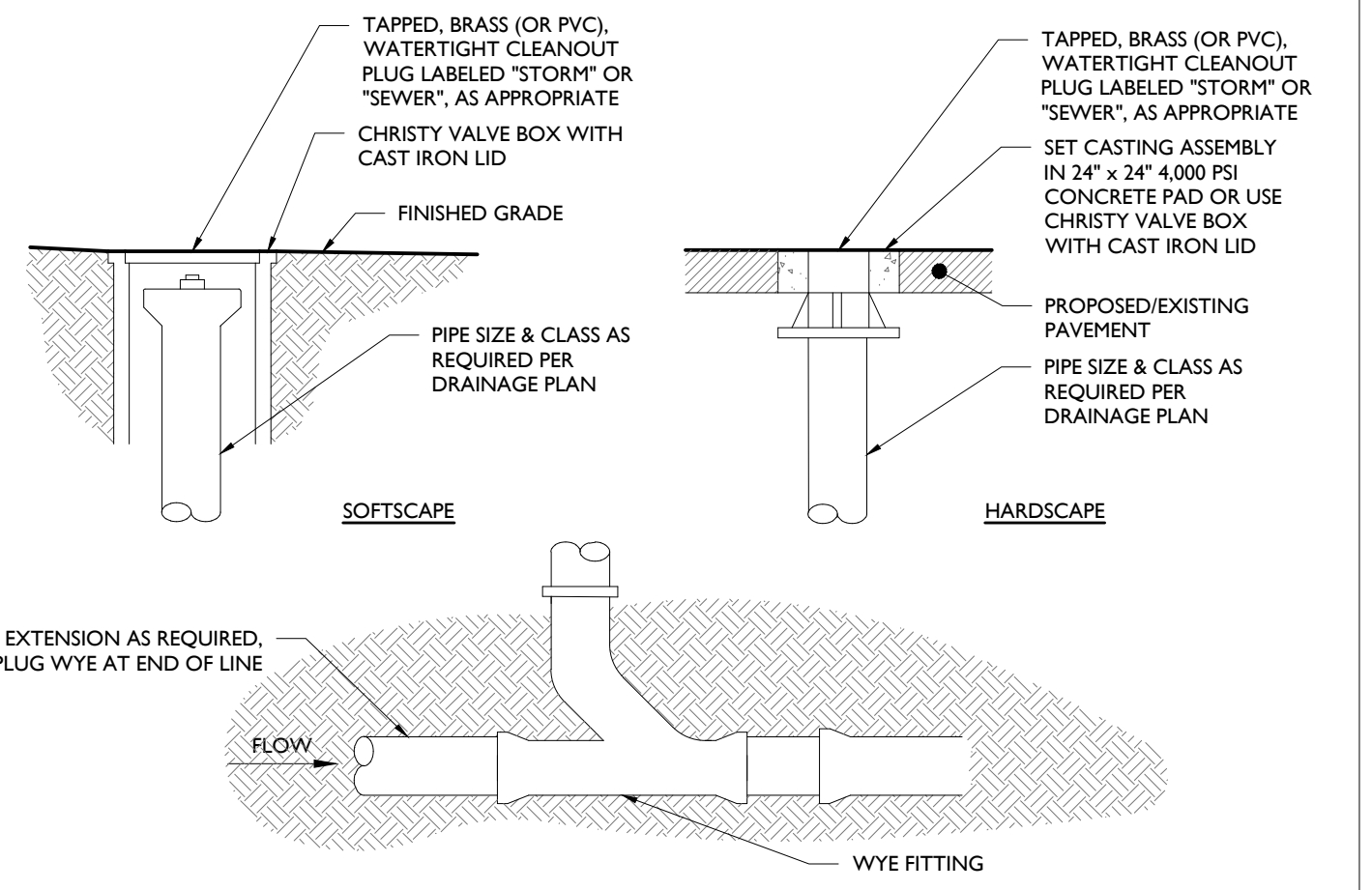
NOT TO SCALE

NOTE:
MINIMUM PIPE COVER SHALL BE AS FOLLOWS:
• ELECTRIC SERVICE - PER APPLICABLE UTILITY AUTHORITY
• GAS SERVICE - PER APPLICABLE UTILITY AUTHORITY
• SEWER SERVICE - 36" MINIMUM
• WATER SERVICE - 48" MINIMUM



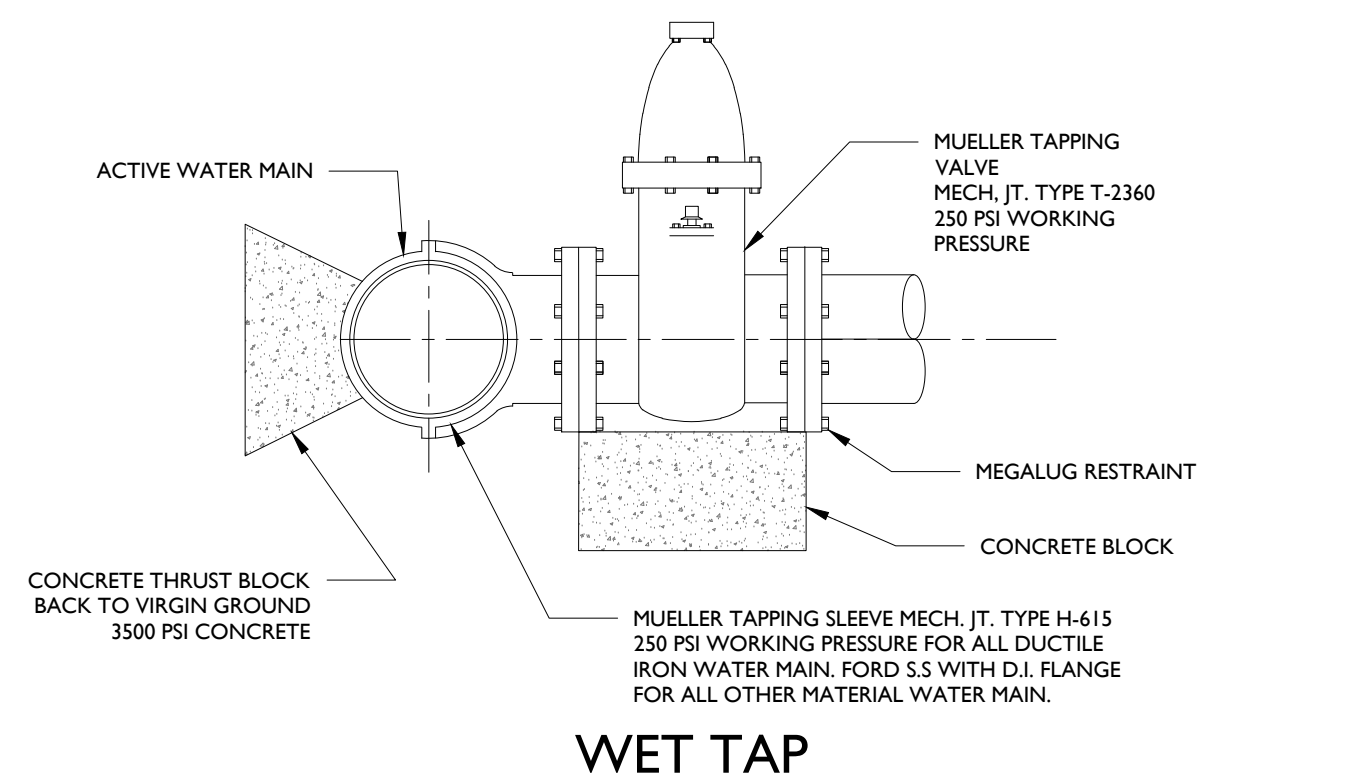
DOGHOUSE MANHOLE DETAIL

NOT TO SCALE



CLEAN-OUT DETAIL

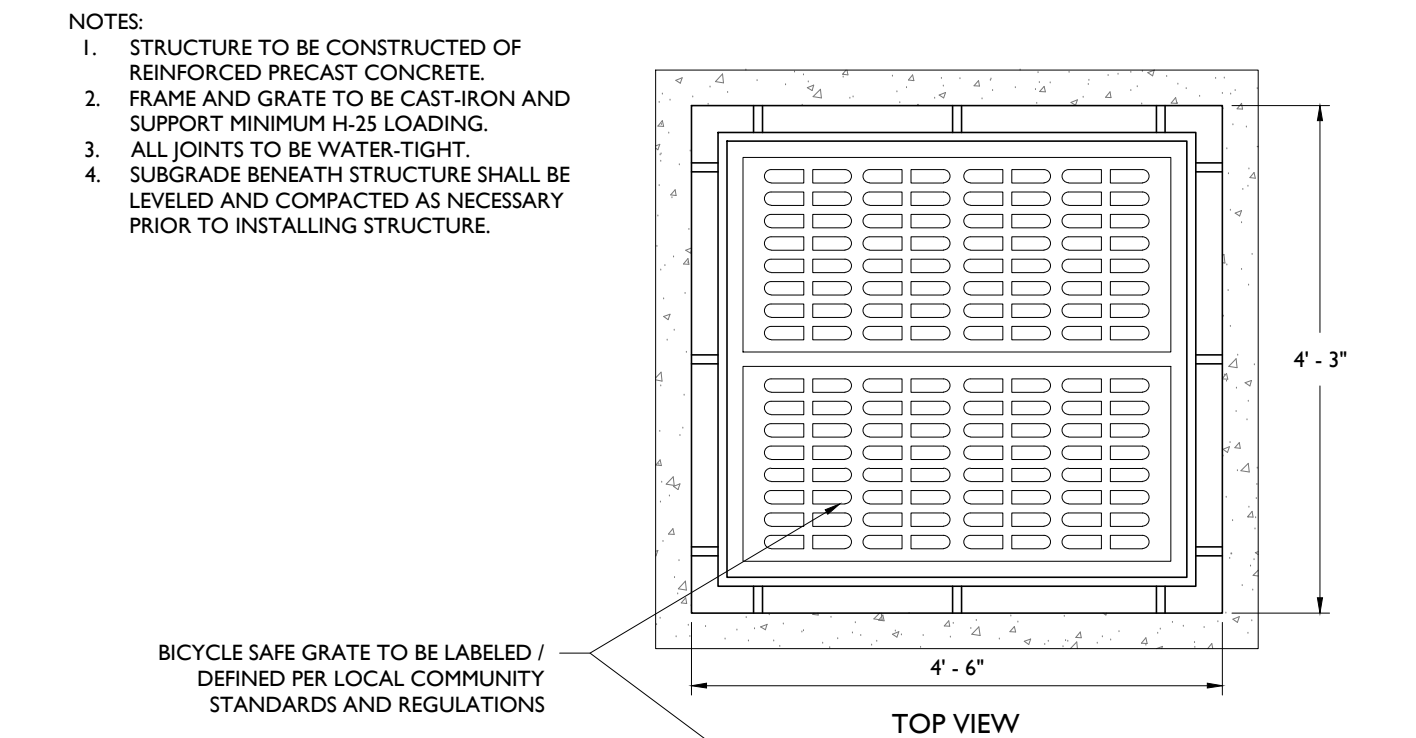
NOT TO SCALE



WET TAP

NOT TO SCALE

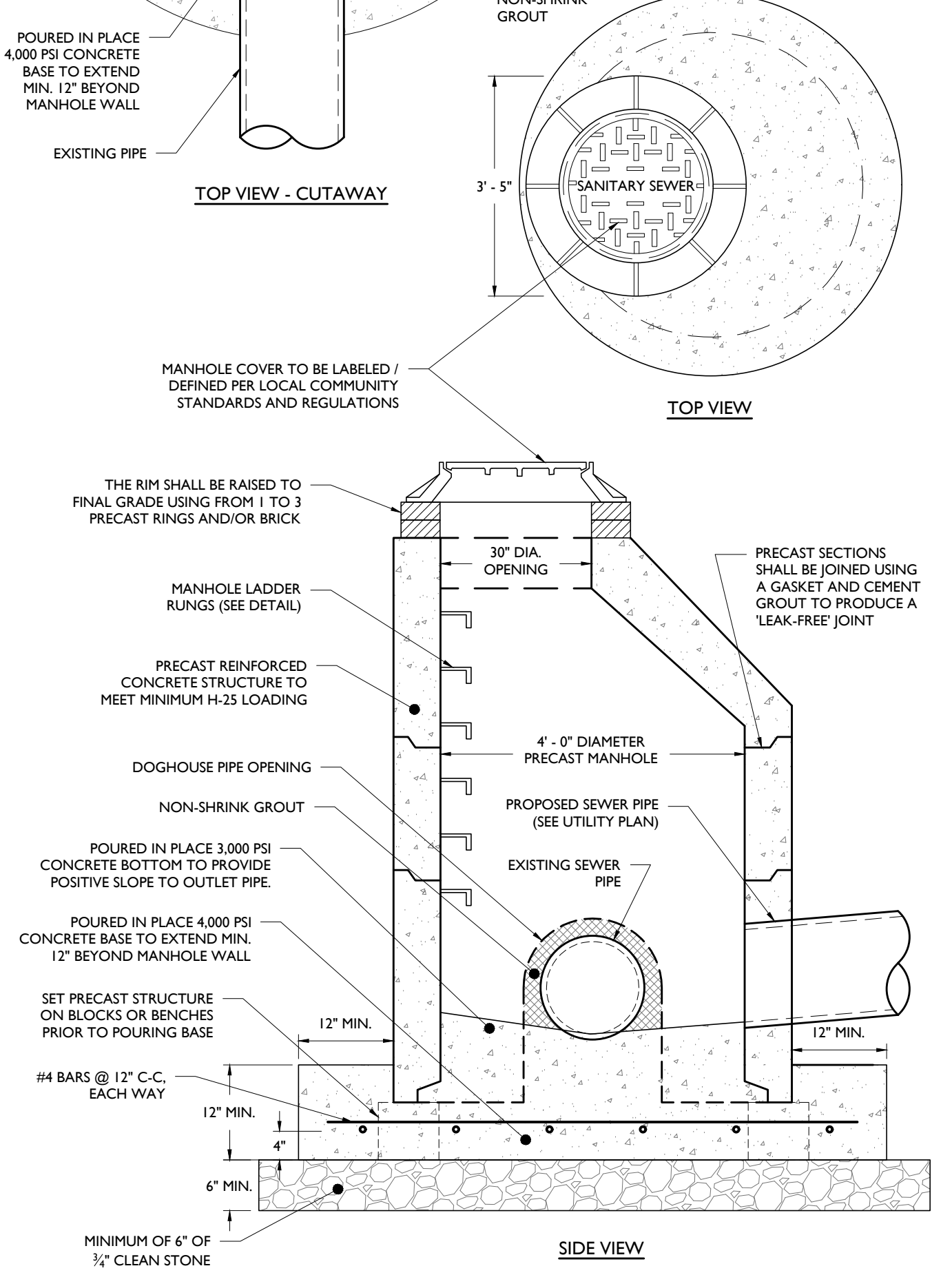
NOTES:
1. ALL NEWLY INSTALLED TAPPING SLEEVES AND TAPPING VALVES SHALL BE PNEUMATICALLY TESTED AT A TEST PRESSURE OF 150 PSI FOR A PERIOD OF THIRTY MINUTES. AT THE END OF THE TEST PERIOD, IF THE TEST PRESSURE HAS REMAINED CONSTANT, THE TAPPING SLEEVE AND AND VALVE SHALL HAVE PASSED THE TEST.
2. ANY VALVE INSTALLED OUTSIDE OF ASPHALT AREAS MUST BE CONSTRUCTED WITH A 2'x2'x4" CONCRETE COLLAR AROUND IT.



TYPE 'E' STORM INLET DETAIL

NOT TO SCALE

NOTES:
1. STRUCTURE TO BE CONSTRUCTED OF REINFORCED PRECAST CONCRETE.
2. FRAME AND GRATE TO BE CAST-IRON AND SUPPORT MINIMUM H-25 LOADING.
3. ALL JOINTS TO BE WATER-TIGHT.
4. SUBGRADE BENEATH STRUCTURE SHALL BE LEVELED AND COMPACTED AS NECESSARY PRIOR TO INSTALLING STRUCTURE.



DOGHOUSE MANHOLE DETAIL

NOT TO SCALE

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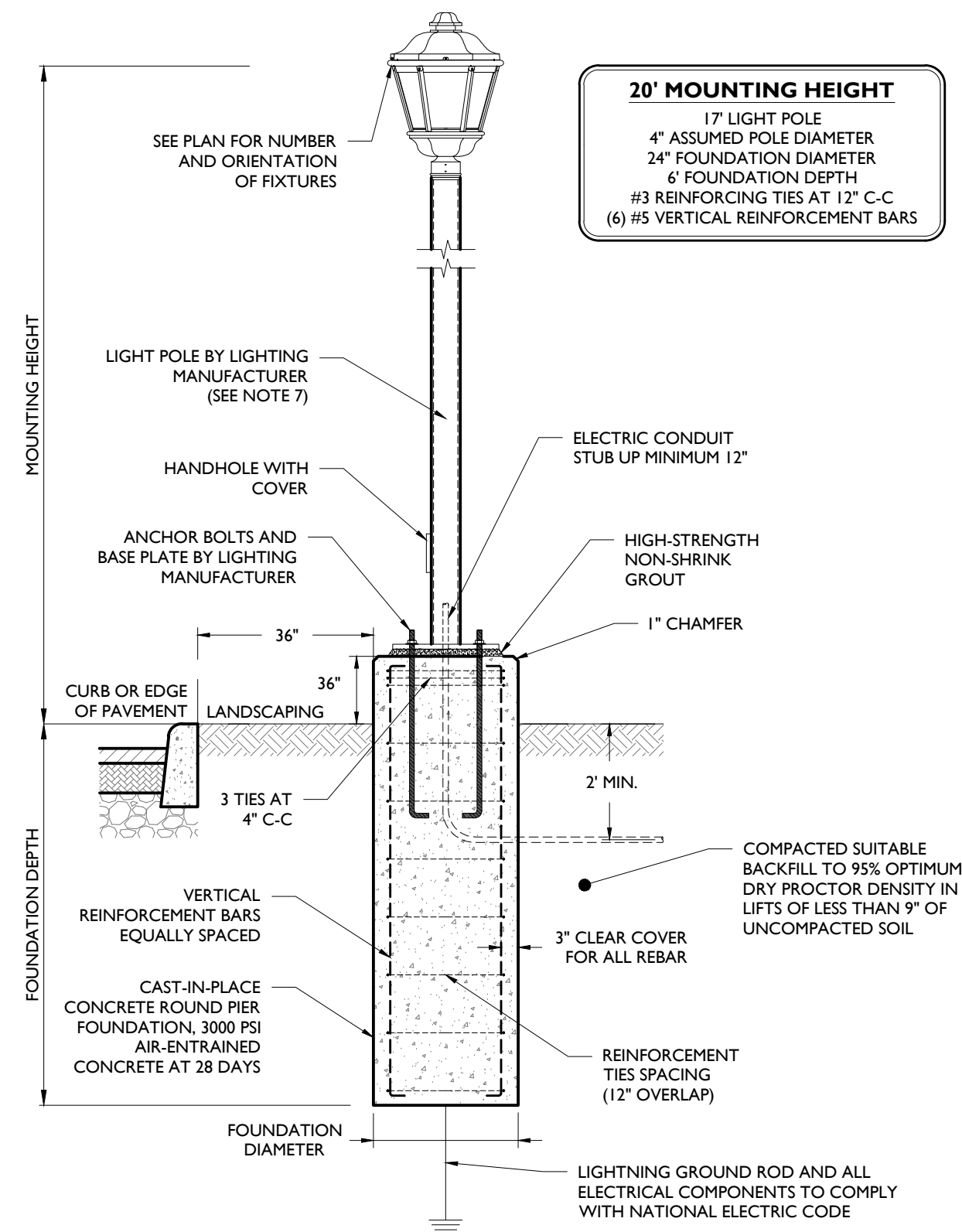
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SCALE: AS SHOWN PROJECT ID: T-19059

TITLE:
CONSTRUCTION DETAILS

DRAWING:

C-12



LIGHT POLE INSTALLATION DETAIL

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.
 4. PRE-CAST PIER'S ACCEPTABLE UPON WRITTEN APPROVAL OF SHOP DRAWING BY ENGINEER.
 5. CONCRETE TO BE INSTALLED A MINIMUM OF 7 DAYS PRIOR TO INSTALLING LIGHT POLE. POURED CONCRETE MIX REQUIRED TO OBTAIN 80% OF DESIGN STRENGTH PRIOR TO INSTALLING LIGHT POLE.
 6. CONCRETE SHALL HAVE A MAXIMUM SLUMP OF 4" (WITHIN 1" TOLERANCE).
 7. POLE SHALL BE RATED FOR 10 MPH HIGHER THAN MAXIMUM WIND SPEED 33FT ABOVE GROUND FOR THE AREA BASED ON ANSI/ASCE 7-93.
 8. POUR TO BE TERMINATED AT A FORM.
 9. WORK SHALL CONFORM TO ACI BEST PRACTICES FOR APPROPRIATE TEMPERATURE AND WEATHER CONDITIONS.
 10. CONTRACTOR TO TEMPORARILY SUPPORT ADJACENT SOIL AND STRUCTURES DURING EXCAVATION IF REQUIRED.

1

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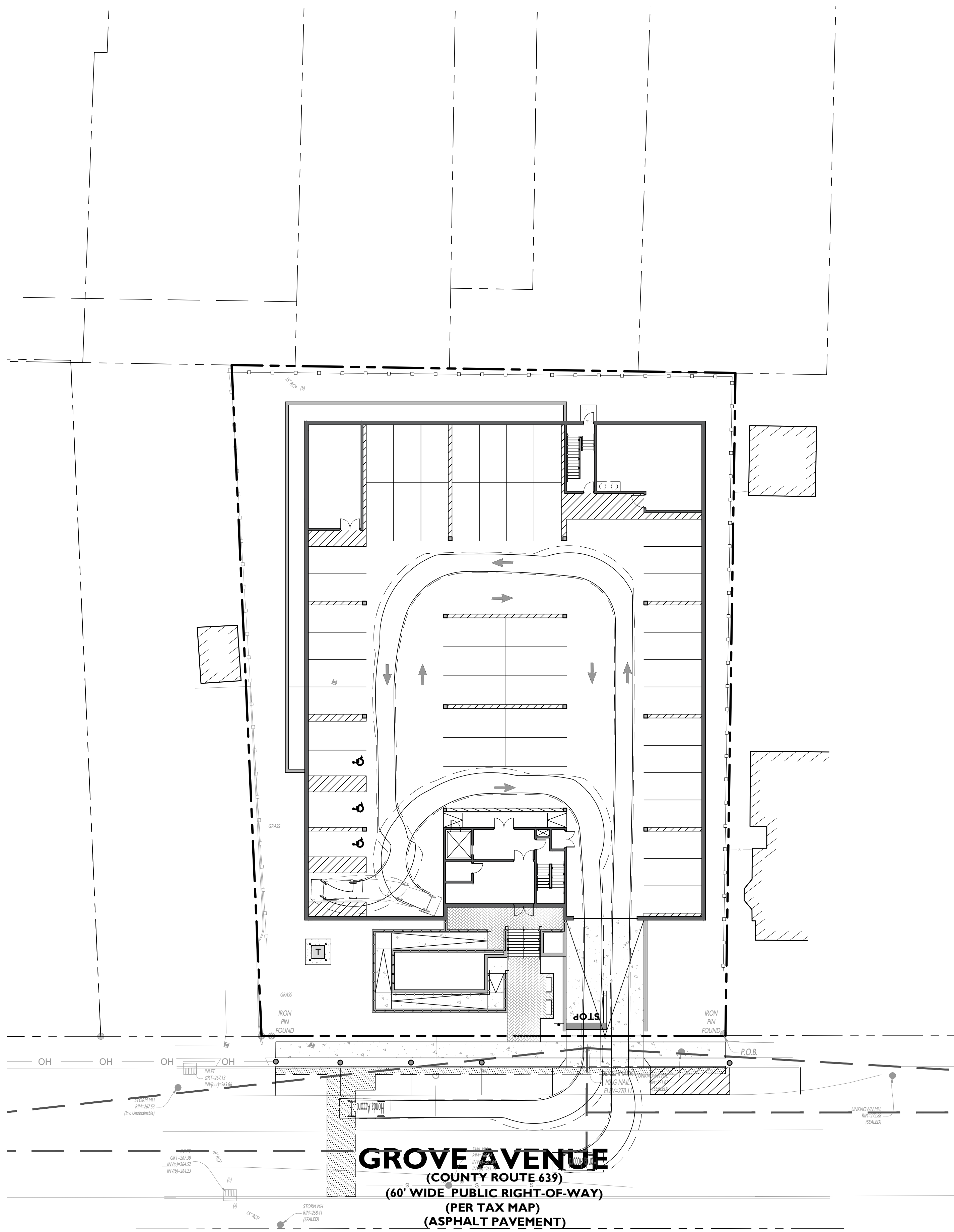
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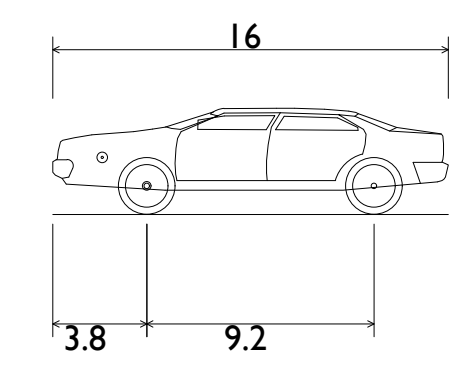
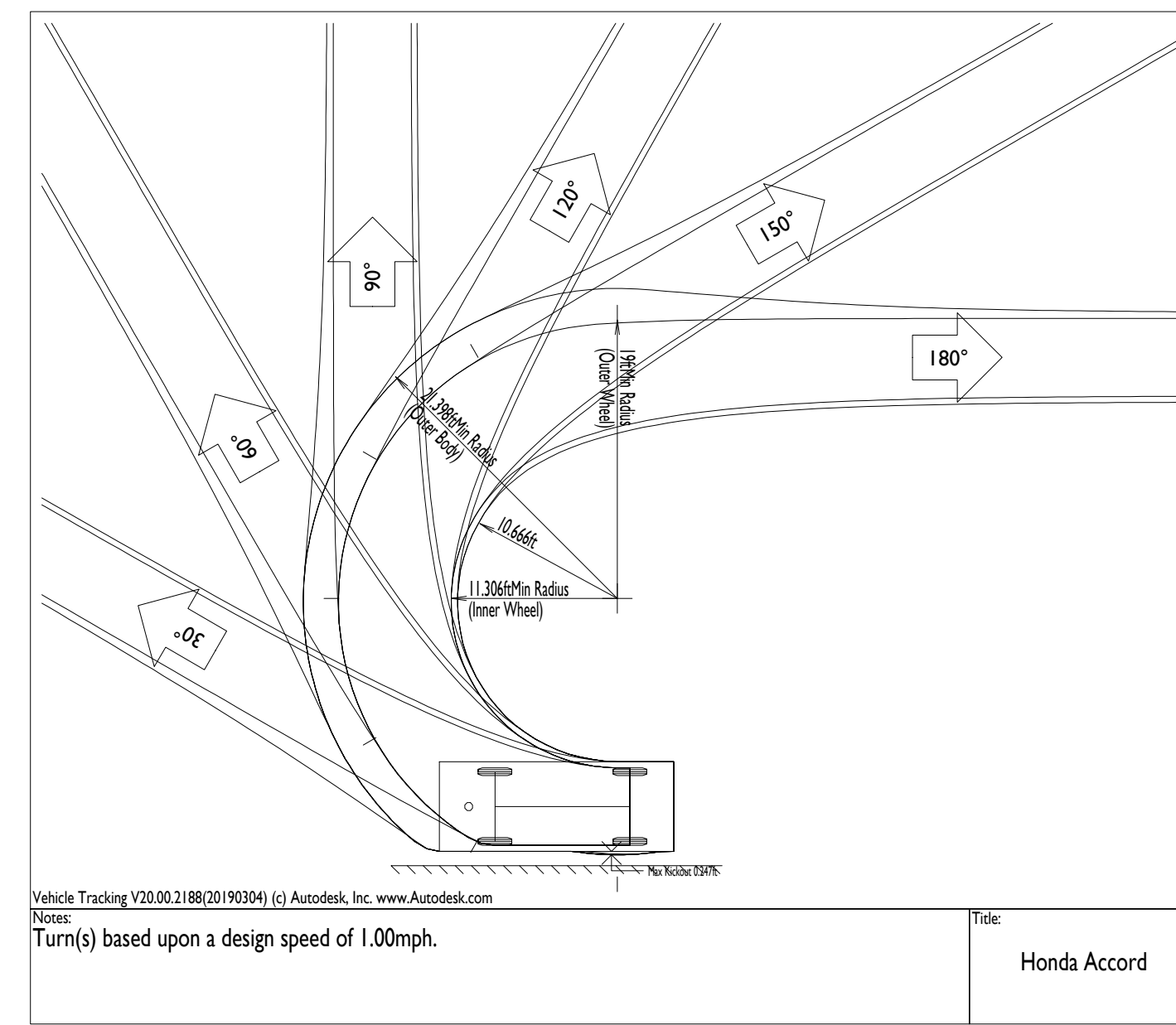
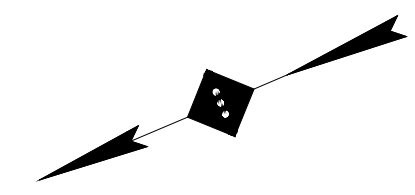
SCALE: AS SHOWN PROJECT ID: T-19059

TITLE:
CONSTRUCTION DETAILS

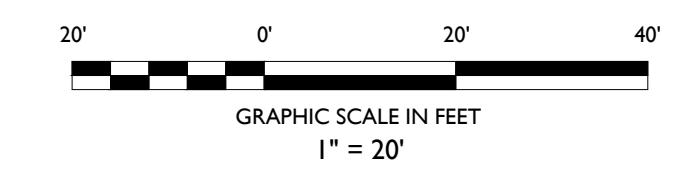
DRAWING:
C-13



GROVE AVENUE
 (COUNTY ROUTE 639)
 (60' WIDE PUBLIC RIGHT-OF-WAY)
 (PER TAX MAP)
 (ASPHALT PAVEMENT)



Honda Accord
 Overall Length 16.000ft
 Overall Width 6.100ft
 Overall Body Height 4.300ft
 Min Body Ground Clearance 0.984ft
 Track Width 5.280ft
 Lock-to-lock time 2.30s
 Curb to Curb Turning Radius 19.000ft



ISSUE	DATE	BY	DESCRIPTION
5	03/04/2021	SPM	FOR MUNICIPAL RESUBMISSION
4	07/11/2020	MEM	FOR MUNICIPAL SUBMISSION
3	02/28/2020	DBB	FOR MUNICIPAL SUBMISSION
2	10/10/2019	ANY	FOR MUNICIPAL SUBMISSION
1	09/20/2019	TL	FOR MUNICIPAL SUBMISSION

NOT APPROVED FOR CONSTRUCTION

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Rutherford, NJ · New York, NY · Boston, MA
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 www.stonefielddesign.com

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

PRELIMINARY AND FINAL SITE PLAN

21 & 25 GROVE ASSOCIATES, LLC.

PROPOSED RESIDENTIAL DEVELOPMENT

BLOCK 1702, LOT 22
 21 GROVE AVENUE (C.R. 639)
 TOWNSHIP OF YERONA
 ESSEX COUNTY, NEW JERSEY

MATTHEW J. SECKLER, P.E.
 NEW JERSEY LICENSE No. 48721
 LICENSED PROFESSIONAL ENGINEER

STONEFIELD
 engineering & design

SCALE: 1" = 20' PROJECT ID: T-19059

TITLE:
TRUCK TURNING (HONDA ACCORD)

DRAWING:

C-15