

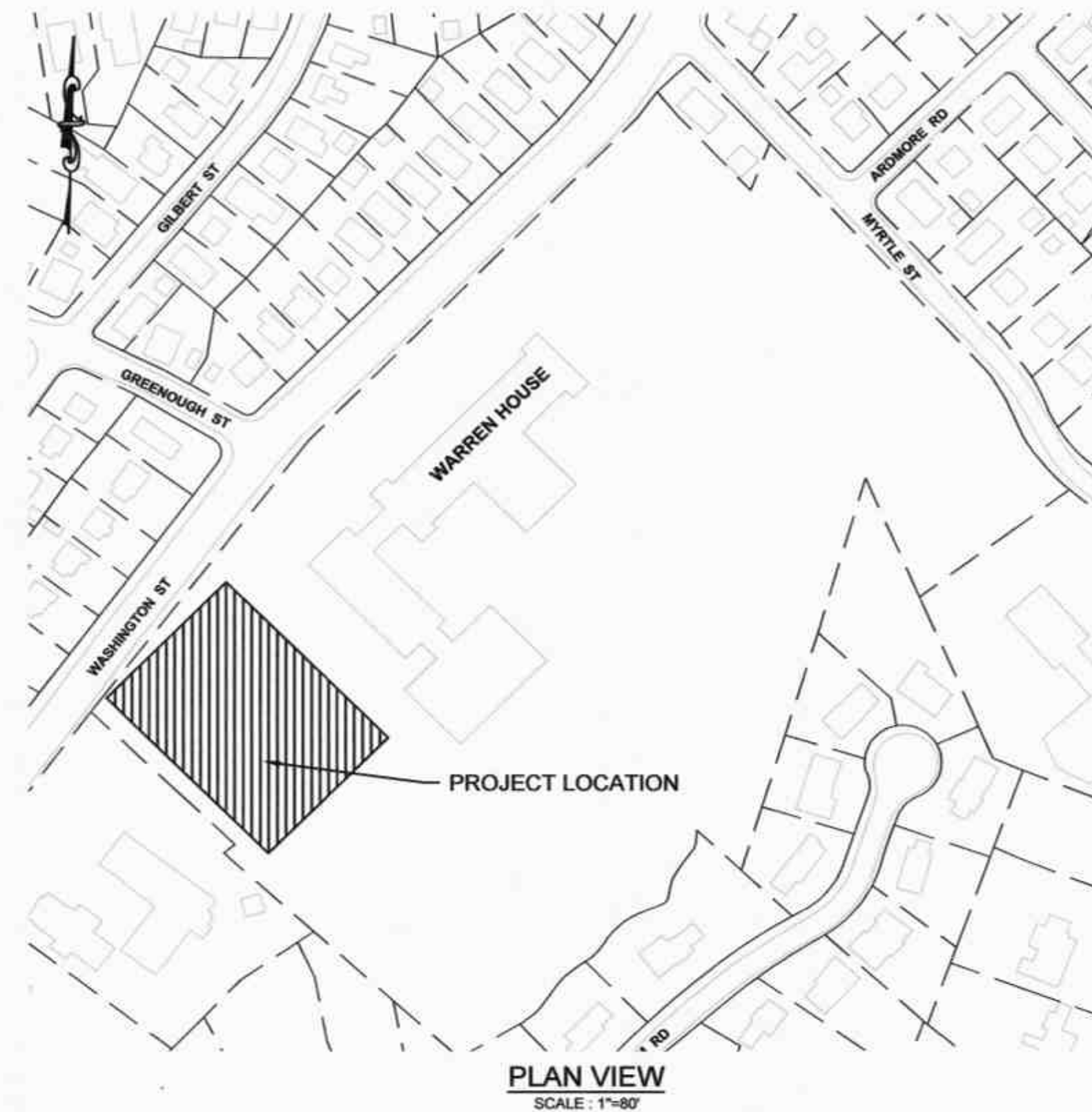
CITY OF NEWTON DEPARTMENT OF PARKS AND RECREATION

PLAN OF
RECONSTRUCTION OF THE MCGRATH TENNIS COURTS & OFF LEASH AREA

IN THE CITY OF
NEWTON, MASSACHUSETTS
SETTI D. WARREN, MAYOR

INDEX

SHEET NO.	DESCRIPTION
1	TITLE SHEET & INDEX
2	LEGEND & GENERAL CONSTRUCTION NOTES
3	EXISTING CONDITIONS
4	SITE PREPARATION PLAN
5	CONSTRUCTION PLAN
6	ALIGNMENT AND GRADING PLAN
7	WALKWAY PROFILE
8 TO 9	CONSTRUCTION DETAILS



THE CITY OF NEWTON GENERAL CONSTRUCTION DETAILS (CONFORMING TO THE CITY OF NEWTON STANDARD SPECIFICATIONS), DATED MARCH 2003, THE MASSACHUSETTS HIGHWAY DEPARTMENT STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES DATED 1988, AS AMENDED, THE SUPPLEMENTAL SPECIFICATIONS DATED JULY 1, 2015, THE 2016 CONSTRUCTION STANDARD DETAILS, THE INTERIM SUPPLEMENTAL SPECIFICATIONS DATED SEPTEMBER 16, 2016, THE 1996 CONSTRUCTION AND TRAFFIC STANDARD DETAILS (AS RELATES TO TRAFFIC STANDARD DETAILS ONLY), THE 2009 MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS WITH MASSACHUSETTS AMENDMENTS, THE 1968 STANDARD DRAWINGS FOR TRAFFIC SIGNALS AND HIGHWAY LIGHTING AND THE LATEST EDITION OF THE AMERICAN STANDARD FOR NURSERY STOCK, WILL GOVERN.

CITY OF NEWTON
MASSACHUSETTS

DESIGNED BY: A. VARGAS
DRAWN BY: M. PANZA
CHECKED BY: J. DAGHLIAN
APPROVED BY: L. TAVERNA

Louis M. Taverna
LOUIS M. TAVERNA, P.E.
CITY ENGINEER
FOR ALL CIVIL/SITE WORK



N84-38941

CITY OF NEWTON
MASSACHUSETTS
TITLE SHEET & INDEX
FOR THE
RECONSTRUCTION
OF THE

MCGRATH TENNIS COURTS & OFF LEASH AREA
PAGE 1 OF 9
SCALE: AS NOTED DATE: 8/1/2017

LEGEND

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
□ DH/SB	DRILL HOLE/ STONE BOUND	■ C.B.	CATCH BASIN	⊕	BENCHMARK
● D.H.	DRILL HOLE	⊕ D.M.H.	DRAIN MANHOLE	CTRL.CAB	CONTROL CABINET (TRAFFIC)
○ I.R.	IRON ROD	⊕ S.M.H.	SEWER MANHOLE	PB	PULL BOX
○ I.P.	IRON PIPE	⊕	WATERMAIN MANHOLE	VAR.	VARIABLE
□ C.B.	CONCRETE BOUND	M.W.R.A.	MA WATER RESOURCES AUTHORITY	106.02	EXISTNG SPOT GRADE
□ CTR./S.B.	CENTER/ STONE BOUND	⊕	TELEPHONE MANHOLE	APPR.	APPROXIMATE
□ CRNR./S.B.	CORNER/ STONE BOUND	⊕	ELECTRIC MANHOLE	VAR.	VARIABLE
E.P./L.P.	ESCUTCHEON PIN/LEAD PLUG	—	SIGN	PKWY.	PARKWAY
⊕ I.P./C.B.	IRON PIPE/CONCRETE BOUND	⊕	WATER GATE	BK.	BOOK
BIT.	BITUMINOUS	⊕	UTILITY POLE	PG.	PAGE
CONC.	CONCRETE	● GW	GUY	S.D.	SOUTH DISTRICT
B.G.	BELOW GRADE	⊕	HYDRANT	M.C.R.D.	MIDDLESEX COUNTY REGISTRY OF DEEDS
GRAN.	GRANITE	☆	LIGHT	SPCS	STATE PLANAR COORDINATE SYSTEM
S.	SET	⊕ HW	OVERHEAD WIRES	BLDG.	BUILDING
F.	FOUND	UGE	UNDERGROUND ELECTRIC WIRES	PL.BK.	PLAN BOOK
N/F	NOW OR FORMERLY	CEM.	CEMENT		

GENERAL CONSTRUCTION NOTES:

THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL SURVEY CONTROL, STAKES AND/OR STRING LINES AS HE DEEMS NECESSARY AND/OR AS OTHERWISE MAY BE REQUIRED BY THE ENGINEER.

- ALL QUANTITIES MUST BE VERIFIED BY THE ENGINEER, NO PAYMENT SHALL BE MADE FOR ANY QUANTITIES WHICH HAVE NOT BEEN EITHER AUTHORIZED OR VERIFIED BY THE ENGINEER.
- THE CONTRACTOR IS RESPONSIBLE FOR THE VERIFICATION OF ALL EXISTING CONDITIONS PRIOR TO CONSTRUCTION.
- THE CITY DOES NOT WARRANT THE LOCATION OF ANY PIPES OR CONDUITS.
- THE CONTRACTOR SHALL CONTACT DIG SAFE @ 1-888-344-7233 AND SHALL NOT OCCUPY ANY AREA(S) UNTIL THE AUTHORIZATION DATE HAS BEEN ATTAINED.
- FOR FURTHER UTILITY SUPPORT AND EMERGENCY RESPONSE REQUESTS, THE CONTRACTOR IS ADVISED TO CONTACT THE APPROPRIATE UTILITY AUTHORITY.
- ANY UTILITY RELOCATIONS, AND/OR UTILITY ISSUES, ARE TO BE DIRECTLY AND COORDINATED BY THE CONTRACTOR WITH THE RESPECTIVE UTILITY COMPANY.
- ALL EXCESS EXCAVATION MATERIAL, AND/OR WASTE ITEMS, OF ANY TYPE OR MATERIAL, ARE TO BE DISPOSED OF AT A LEGAL DUMPING SITE AT THE CONTRACTORS OWN EXPENSE NO DISPOSAL SITE SHALL BE PROVIDED BY THE CITY.
- ALL DEBRIS IS TO BE REMOVED FROM THE SITE ON A DAILY BASIS, HOWEVER, IF SITE CONSTRAINTS ARE NOT AN ISSUE THEN THE CONTRACTOR CAN MAINTAIN A 'LOCKED LID' DUMPSTER AT THE DISCRETION OF THE ENGINEER AND BY PERMIT ONLY.
- AREAS AND/OR STRUCTURES BEYOND THE LIMITS OF THE CONTRACT DISTURBED AND/OR DAMAGED BY THE CONTRACTOR SHALL BE RESTORED BY THE CONTRACTOR TO THEIR ORIGINAL CONDITION AT HIS OWN EXPENSE AND AS APPROVED BY THE ENGINEER.
- THE CONTRACTOR IS EXCLUSIVELY RESPONSIBLE FOR ALL SAFETY ASPECTS OF THIS PROJECT.
- HOURS OF OPERATIONS ARE SET BY LAW. NO MACHINES OR EQUIPMENT ARE TO BE ACTIVATED BEFORE 7:00 AM AND NO WORK IS TO EXTEND BEYOND 4:30 PM. NO WEEKEND OR HOLIDAY WORK IS ALLOWED WITHOUT SPECIAL PERMISSION.
- THE FINAL DETERMINATION OF THE PROJECT LIMIT(S) SHALL BE ESTABLISHED IN THE FIELD BY THE ENGINEER.
- FOR FURTHER DETAILS NOT SHOWN ON THESE PLANS SEE "CITY OF NEWTON GENERAL CONSTRUCTION DETAILS". A COPY OF WHICH CAN BE VIEWED ONLINE @ [CI.NEWTONMA.GOV/DPW/ENGINEERING/GENERAL CONSTRUCTION DETAILS.PDF](http://CI.NEWTONMA.GOV/DPW/ENGINEERING/GENERAL_CONSTRUCTION_DETAILS.PDF)
- THE FINAL DETERMINATION OF THE PROJECT LIMIT(S), AND/OR STAGING/STOCKPILING AREAS, SHALL BE ESTABLISHED IN THE FIELD BY THE ENGINEER AND/OR SUBJECT TO HIS APPROVAL.
- COMPACTION OF DENSE GRADED MATERIAL, GRAVEL BACKFILL OR OTHER BASE COURSE MATERIAL IS TO BE COMPACTED TO 95% DENSITY.
- WHEN EXISTING SITE AMENITIES/APPERTANCES ARE TO BE REUSED THEN THE CONTRACTOR SHALL THOROUGHLY REMOVE ALL CONCRETE FOOTINGS PRIOR TO THE RESETTING OF SUPPORT POSTS.
- ANY PORTION OF EXISTING SITE AMENITIES/APPERTANCES WHICH ARE TO REMAIN SHALL BE ADJUSTED IN A MANNER ACCEPTABLE TO THE ENGINEER.
- EXCAVATIONS, FILLED AREAS AND/OR APERTURES ARE TO BE COMPACTED ONLY WITH APPROVED PNEUMATIC TAMPING BITS AND/OR 'JUMPING JACK' COMPACTORS, UNTIL SUCH TIME AS THE OPTIMUM COMPACTION REQUIREMENTS HAVE BEEN OBTAINED.
- ALL GATE QUANTITIES AND LOCATIONS SHALL BE VERIFIED BY THE OWNER PRIOR TO INSTALLATION.
- THE CONTRACTOR IS RESPONSIBLE FOR ALL ADJUSTMENT/REMODELS OF EXISTING STRUCTURES TO PROPOSED GRADE. THE CONTRACTOR SHALL USE MATERIALS APPROVED BY THE OWNER.
- LOCATIONS OF UTILITIES SHOWN WERE PLOTTED FROM (1) FIELD DATA FURNISHED BY THE CITY OF NEWTON, MA OR THE RESPECTIVE UTILITY OR (2) BY LOCATION IN THE FIELD. LOCATIONS AND ELEVATIONS OF ALL UTILITIES ARE APPROXIMATE ONLY. THE CONTRACTOR SHALL NOTIFY DIG SAFE AND DETERMINE THE EXACT LOCATIONS IN THE FIELD PRIOR TO ANY WORK PER MASSACHUSETTS GENERAL LAW CHAPTER 82 SECTIONS 40A - 40E, AS AMENDED. THIS PLAN DOES NOT WARRANT NOR GUARANTEE THE LOCATION OF ALL UTILITIES DEPICTED OR NOT DEPICTED, THIS PLAN MAY OR MAY NOT SHOW ALL THE UTILITIES SERVICING OR EXISTING AT THIS SITE; ABOVE GROUND OR BELOW, IN SERVICE OR ABANDONED, UNRECORDED OR OF RECORD. ANY LABEL IDENTIFYING A UTILITY STRUCTURE IS BASED ON FIELD INSPECTION AND/OR AVAILABLE PLANS AND SHOULD NOT BE CONSIDERED AS A DEFINITIVE DESCRIPTION OF EITHER THE UTILITY OR USAGE OF THE STRUCTURE.
- THE CERTIFICATION(S) SHOWN HEREON ARE INTENDED TO MEET REGISTRY OF DEEDS AND/OR MUNICIPAL REQUIREMENTS AND NOT A CERTIFICATION TO TITLE OR OWNERSHIP OF PROPERTY SHOWN, OWNERS OF LOCUS AND ADJOINING PROPERTIES ARE ACCORDING TO CURRENT ASSESSOR'S RECORDS.
- THIS PLAN DOES NOT SHOW ANY RECORDED, UNRECORDED OR UNWRITTEN EASEMENTS WHICH MAY EXIST. A REASONABLE AND DILIGENT ATTEMPT HAS BEEN MADE TO OBSERVE ANY APPARENT VISIBLE USES OF THE LAND; HOWEVER, THIS DOES NOT CONSTITUTE A GUARANTEE THAT NO SUCH EASEMENTS EXIST.
- THIS PLAN WAS PREPARED FOR THE CITY OF NEWTON FOR THE FOLLOWING PURPOSES: EXISTING CONDITIONS TOPOGRAPHIC PLAN OF THE WARREN HOUSE/MCGRATH PARK TENNIS COURTS FOR PROPOSED NEW TENNIS COURT DESIGN. THIS PLAN IS THE RESULT OF COMBINING TOPOGRAPHIC DETAIL SURVEY INFORMATION GATHERED IN 2016 BY P.H., G.L. & M.P. THE ELEVATION BENCHMARKS DEPICTED HEREON ARE BASED ON THE CITY OF NEWTON DATUM AS PER DIFFERENTIAL LEVELING THAT WAS PERFORMED.
- THIS PLAN IS AN ORIGINAL WORK OF THE CITY OF NEWTON ENGINEERING DEPARTMENT. IT IS A VIOLATION OF LAW FOR ANYONE TO REPRESENT THIS PLAN AS THEIR OWN ORIGINAL WORK, WITH OR WITHOUT EDITING. IT IS A VIOLATION OF LAW TO EDIT THIS PLAN AND CONTINUE TO REPRESENT IT AS THE ORIGINAL WORK OF THE CITY OF NEWTON ENGINEERING DEPARTMENT.
- NO BORDER OF VEGETATIVE WETLANDS DETERMINATION (BVW) WAS PERFORMED.



CITY OF NEWTON
MASSACHUSETTS

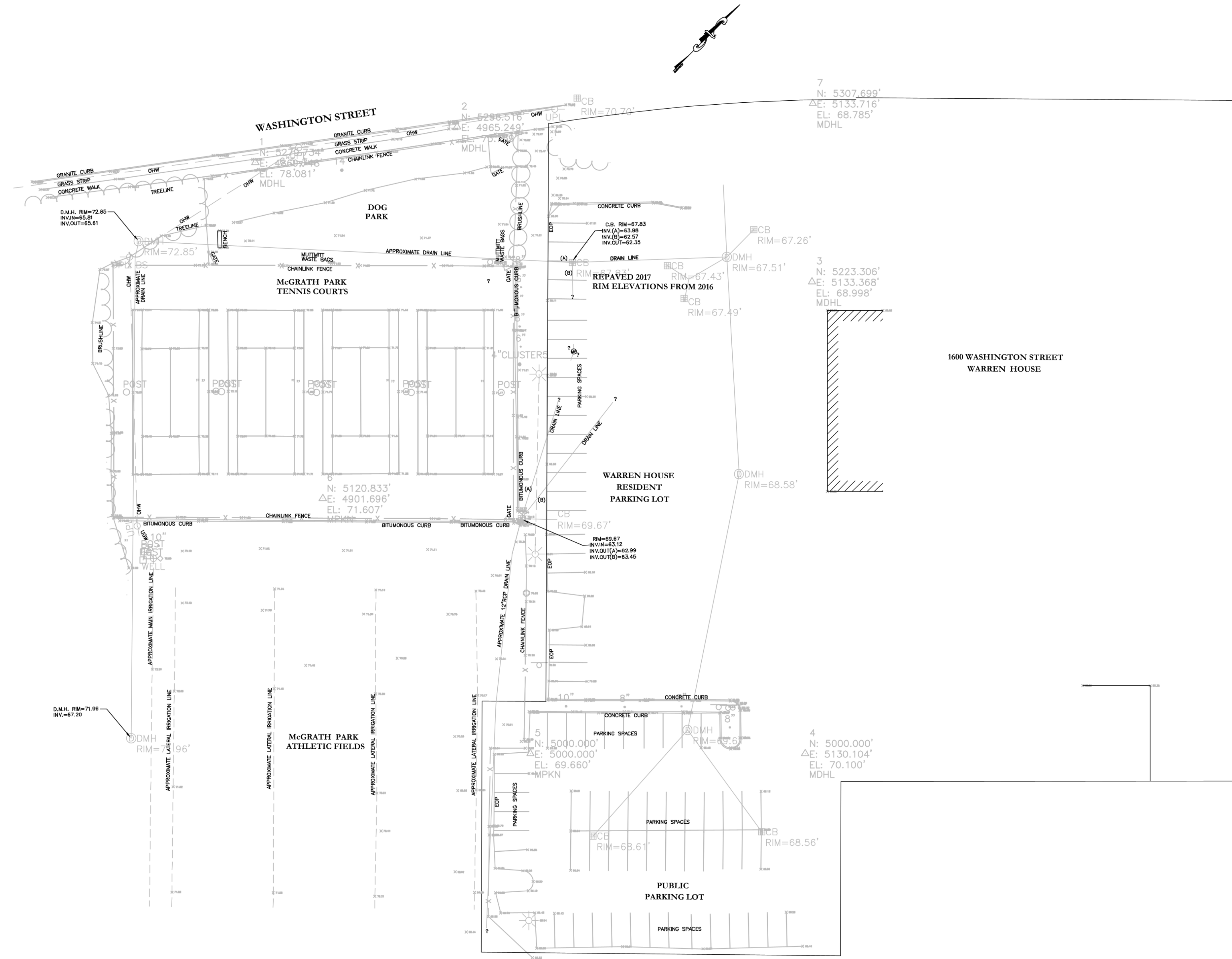
DESIGNED BY: A.VARGAS
DRAWN BY: M.PANZA
CHECKED BY: J.DAGHIAN
APPROVED BY: J.TAVERNA

CITY OF NEWTON
MASSACHUSETTS
LEGEND & GENERAL CONSTRUCTION NOTES
FOR THE
RECONSTRUCTION
OF THE
MCGRATH TENNIS COURTS & OFF LEASH AREA
PAGE 2 OF 9
SCALE: AS NOTED DATE: 8/1/2017

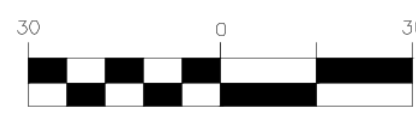


CITY OF NEWTON
MASSACHUSETTS

DESIGNED BY: P. HIGGINS
DRAWN BY: P. HIGGINS
CHECKED BY: J. DAGLIAN
APPROVED BY: L. TAVERNA



SCALE: 1"=30'



NOTES:

- (1) LOCATIONS OF UTILITIES SHOWN WERE PLOTTED FROM (1) FIELD DATA FURNISHED BY THE CITY OF NEWTON, MA OR THE RESPECTIVE UTILITY OR (2) BY LOCATION IN THE FIELD. LOCATIONS AND ELEVATIONS OF ALL UTILITIES ARE APPROXIMATE ONLY. THE CONTRACTOR SHALL NOTIFY DIG SAFE AND DETERMINE THE EXACT LOCATIONS IN THE FIELD PRIOR TO ANY WORK PER MASSACHUSETTS GENERAL LAW CHAPTER 82 SECTIONS 40A - 40E, AS AMENDED. THIS PLAN DOES NOT WARRANT NOR GUARANTEE THE LOCATION OF ALL UTILITIES DEPICTED OR NOT DEPICTED, THIS PLAN MAY OR MAY NOT SHOW ALL THE UTILITIES SERVING OR EXISTING AT THIS SITE, ABOVE GROUND OR BELOW, IN SERVICE OR ABANDONED, UNRECORDED OR OF RECORD. ANY LABEL IDENTIFYING A UTILITY STRUCTURE IS BASED ON FIELD INSPECTION AND/OR AVAILABLE PLANS AND SHOULD NOT BE CONSIDERED AS A DEFINITIVE DESCRIPTION OF EITHER THE UTILITY OR USAGE OF THE STRUCTURE.
- (2) THE CERTIFICATION(S) SHOWN HEREON ARE INTENDED TO MEET REGISTRY OF DEEDS AND/OR MUNICIPAL REQUIREMENTS AND NOT A CERTIFICATION TO TITLE OR OWNERSHIP OF PROPERTY SHOWN, OWNERS OF LOCUS AND ADJOINING PROPERTIES ARE ACCORDING TO CURRENT ASSESSOR'S RECORDS.
- (3) THIS PLAN DOES NOT SHOW ANY RECORDED, UNRECORDED OR UNWRITTEN EASEMENTS WHICH MAY EXIST. A REASONABLE AND DILIGENT ATTEMPT HAS BEEN MADE TO OBSERVE ANY APPARENT VISIBLE USES OF THE LAND; HOWEVER, THIS DOES NOT CONSTITUTE A GUARANTEE THAT NO SUCH EASEMENTS EXIST.
- (4) THIS PLAN WAS PREPARED FOR THE CITY OF NEWTON FOR THE FOLLOWING PURPOSES: EXISTING CONDITIONS TOPOGRAPHIC PLAN OF THE WARREN HOUSE/McGRATH PARK TENNIS COURTS FOR PROPOSED NEW TENNIS COURT DESIGN. THIS PLAN IS THE RESULT OF COMBINING TOPOGRAPHIC DETAIL SURVEY INFORMATION GATHERED IN 2016 BY P.H., G.L. & M.P. THE ELEVATION BENCHMARKS DEPICTED HEREON ARE BASED ON THE CITY OF NEWTON DATUM AS PER DIFFERENTIAL LEVELING THAT WAS PERFORMED.
- (5) THIS PLAN IS AN ORIGINAL WORK OF THE CITY OF NEWTON ENGINEERING DEPARTMENT. IT IS A VIOLATION OF LAW FOR ANYONE TO REPRESENT THIS PLAN AS THEIR OWN ORIGINAL WORK, WITH OR WITHOUT EDITING. IT IS A VIOLATION OF LAW TO EDIT THIS PLAN AND CONTINUE TO REPRESENT IT AS THE ORIGINAL WORK OF THE CITY OF NEWTON ENGINEERING DEPARTMENT.
- (6) NO BORDER OF VEGETATIVE WETLANDS DETERMINATION (BVW) WAS PERFORMED.

LEGEND

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
□ DH/SB	DRILL HOLE/ STONE BOUND	■ C.B.	CATCH BASIN	⊕	BENCHMARK
⊙ D.H.	DRILL HOLE	⊕ D.M.H.	DRAIN MANHOLE	CTR.L.CAB.	CONTROL CABINET (TRAFFIC)
⊙ I.R.	IRON ROD	⊕ S.M.H.	SEWER MANHOLE	PB	PULL BOX
⊙ I.P.	IRON PIPE	⊕	WATERMAIN MANHOLE	VAR.	VARIABLE
□ C.B.	CONCRETE BOUND	M.W.R.A.	MA WATER RESOURCES AUTHORITY	X _{106.02}	EXISTING SPOT GRADE
□ CTR./S.B.	CENTER/ STONE BOUND	⊕	TELEPHONE MANHOLE	APPR.	APPROXIMATE
□ CORNR./S.B.	CORNER/ STONE BOUND	⊕	ELECTRIC MANHOLE	VAR.	VARIABLE
E.P./L.P.	ESCUTCHEON PIN/LEAD PLUG	—	SIGN	PKWY.	PARKWAY
⊙ I.P./C.B.	IRON PIPE/CONCRETE BOUND	⊕	WATER GATE	BK.	BOOK
BIT.	BITUMINOUS	⊕	UTILITY POLE	PG.	PAGE
CONC.	CONCRETE	● GW	GUY	S.D.	SOUTH DISTRICT
B.G.	BELOW GRADE	⊕	HYDRANT	M.C.R.D.	MIDDLESEX COUNTY REGISTRY OF DEEDS
GRAN.	GRANITE	⊕	LIGHT	SPCS	STATE PLANAR COORDINATE SYSTEM
S.	SET	OHW	OVERHEAD WIRES	BLDG.	BUILDING
F.	FOUND	UGE	UNDERGROUND ELECTRIC WIRES	PL.BK.	PLAN BOOK
N/F	NOW OR FORMERLY	CEM.	CEMENT		

CITY OF NEWTON
MASSACHUSETTS

EXISTING CONDITIONS
FOR THE
RECONSTRUCTION
OF THE

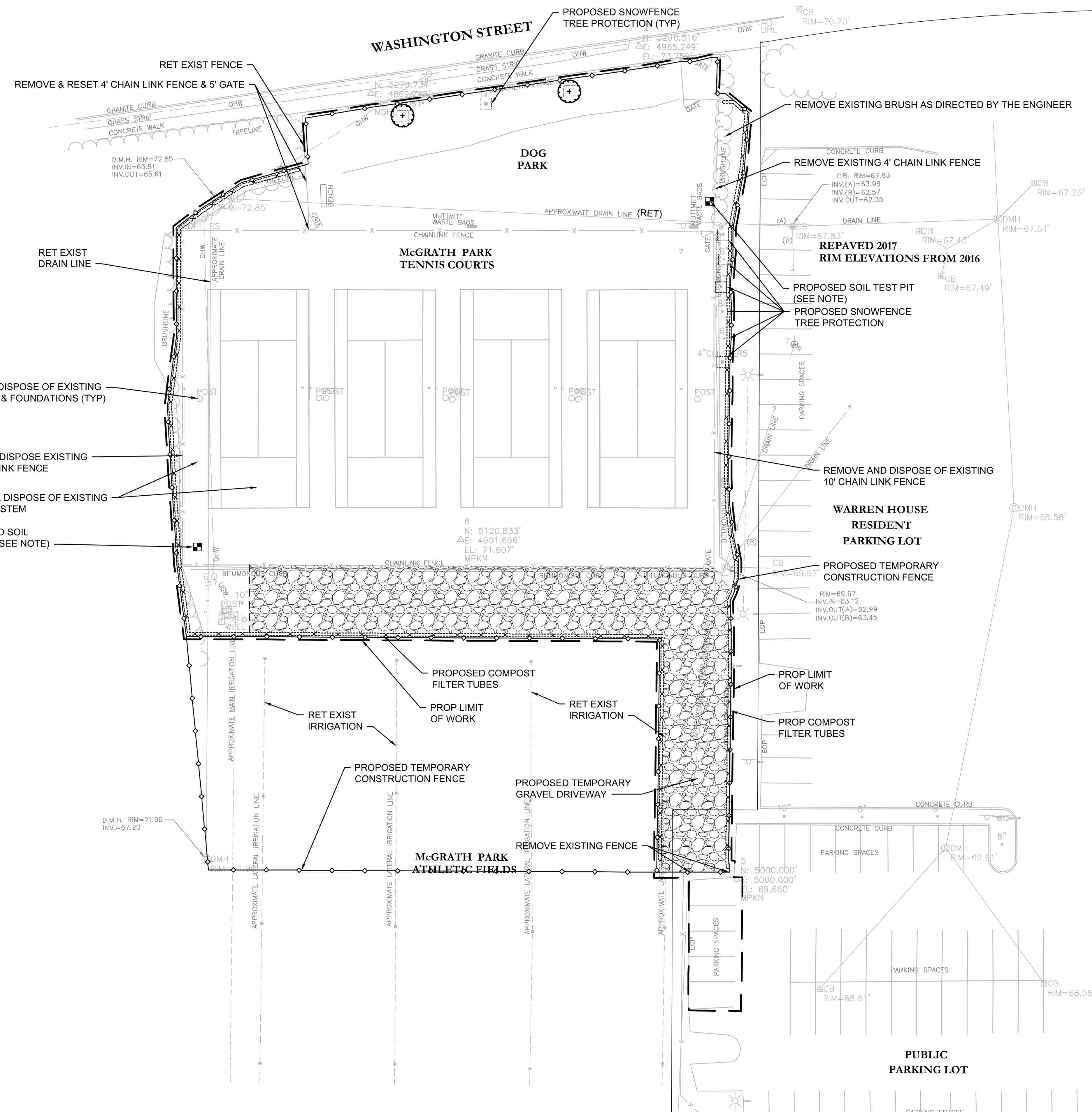
McGRATH TENNIS COURTS & OFF LEASH AREA

PAGE 3 OF 9
SCALE: AS NOTED
DATE: 8/1/2017



CITY OF NEWTON
MASSACHUSETTS

DESIGNED BY: A. VARGAS
DRAWN BY: M. PANIZA
CHECKED BY: J. DAGHIAN
APPROVED BY: J. TAVERNA



PLAN VIEW - MCGRATH TENNIS COURTS
1"=20'

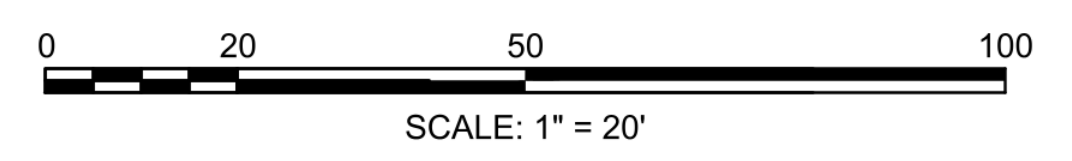
7
N: 5307.699'
ΔE: 5133.718'
EL: 68.785'
MDHL

3
N: 5223.306'
ΔE: 5133.368'
EL: 68.998'
MDHL

4
N: 5000.000'
ΔE: 5130.104'
EL: 70.100'
MDHL

NOTE:

THE VIABILITY OF THE PROPOSED LEACHING BASINS SHALL BE VERIFIED BY PERFORMING A SOIL TEST PIT AT THEIR PROPOSED LOCATIONS. THE CONTRACTOR SHALL SCHEDULE AND EXECUTE THE SOIL TEST PITS AS SOON AS IT IS POSSIBLE TO ACCESS THESE LOCATIONS ADEQUATELY. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IN ADVANCE TO COORDINATE FOR A CITY OF NEWTON SOIL EVALUATOR TO BE PRESENT DURING THE EXECUTION OF THE SOIL TEST PITS. THE CONTRACTOR WILL BE NOTIFIED AS TO WHETHER THE LEACHING BASINS WILL BE INSTALLED AS BEING PROPOSED ONCE THE RESULTS OF THE SOIL TEST PITS HAVE BEEN REVIEWED BY THE ENGINEER.

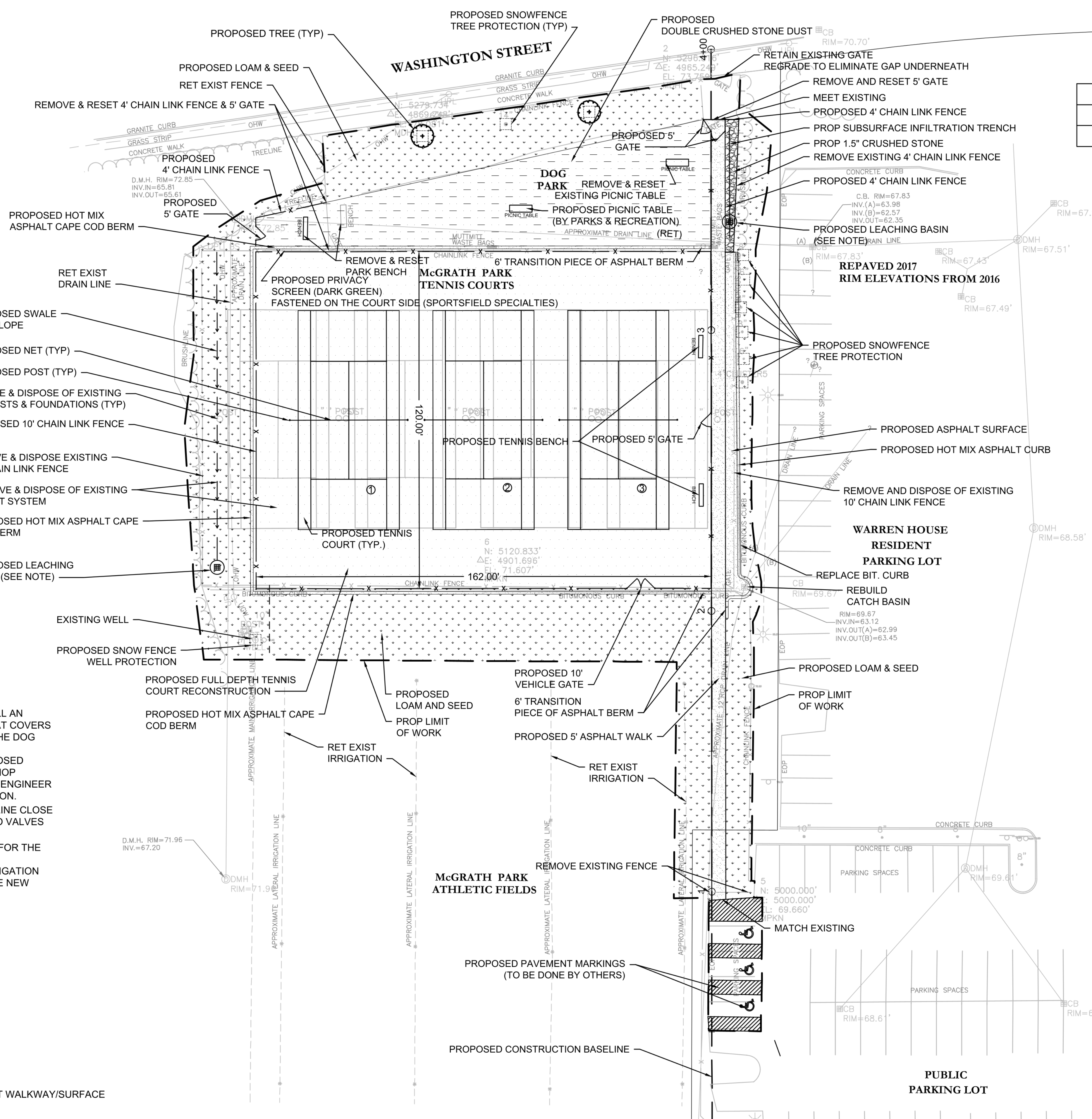


CITY OF NEWTON
MASSACHUSETTS
SITE PREPARATION PLAN
FOR THE
RECONSTRUCTION
OF THE
MCGRATH TENNIS COURTS & OFF LEASH AREA
PAGE 4 OF 9
SCALE: AS NOTED
DATE: 8/1/2017

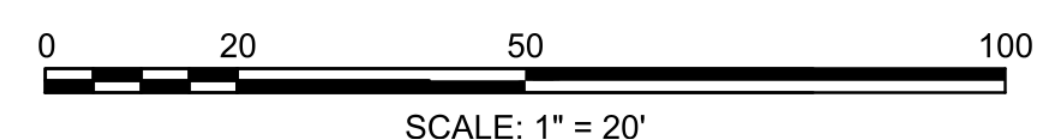


CITY OF NEWTON
MASSACHUSETTS

DESIGNED BY: A. VARGAS
DRAWN BY: M. PANZA
CHECKED BY: J. DAGHILIAN
APPROVED BY: L. TAVERNA



PLAN VIEW - MCGRATH TENNIS COURTS
1"=20'



PLANTING LIST				
BOTANICAL NAME	COMMON NAME	QTY.	CALIPER	CONDITION
CERCIS CANADENSIS	FOREST PANSY 'EASTERN REDBUD'	2	0'-3"	B&B

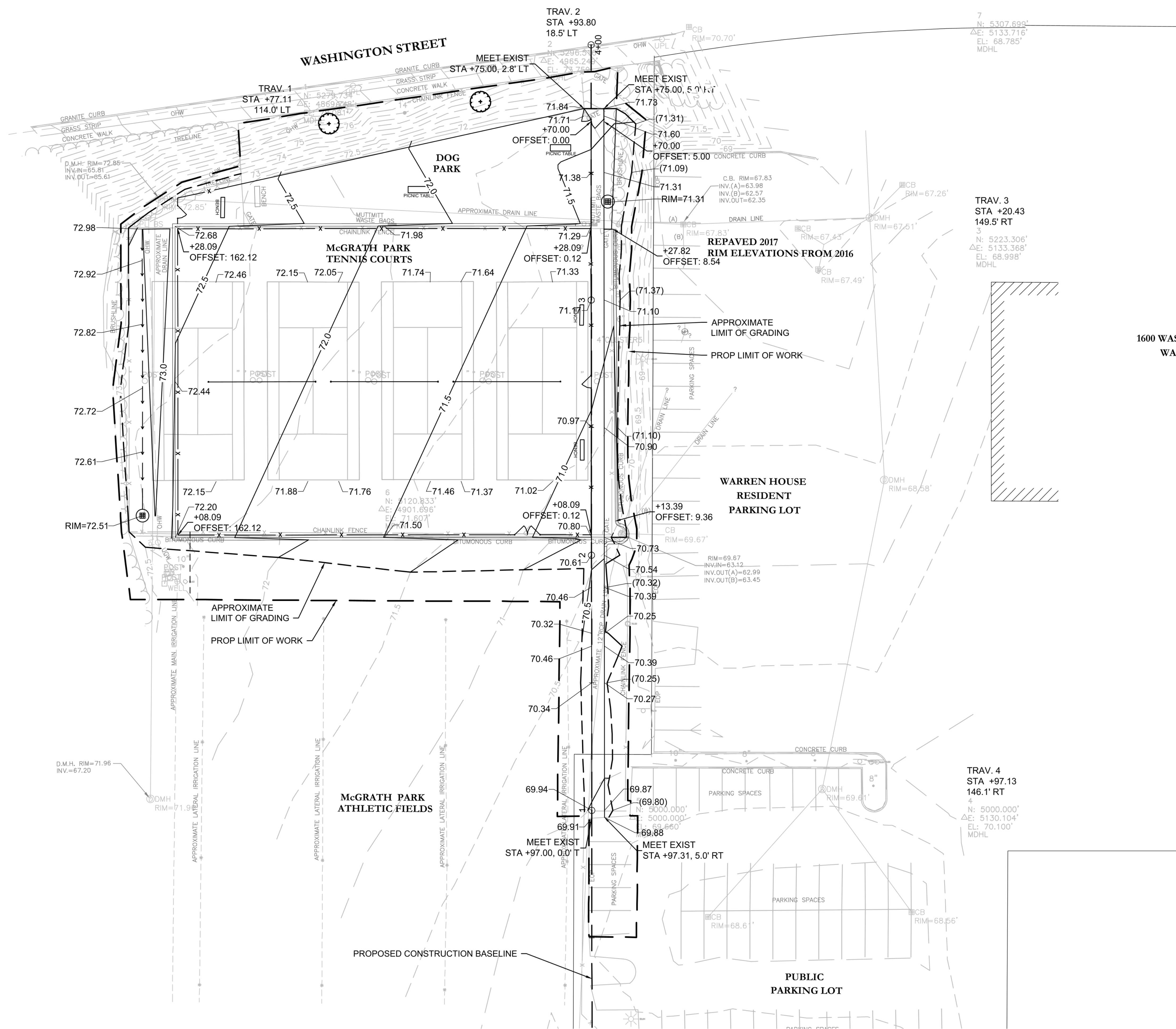
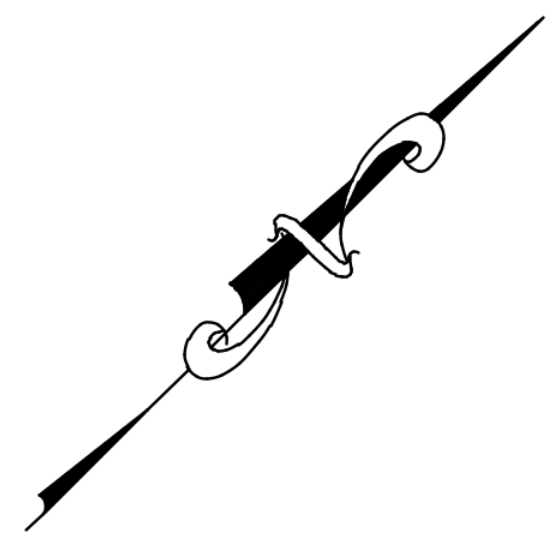
NOTE:
PLANTINGS SHALL BE AS NOTED IN ABOVE TABLE. NO SUBSTITUTIONS UNLESS APPROVED BY PARKS & RECREATION REPRESENTATIVE.

NOTE:
THE VIABILITY OF THE PROPOSED LEACHING BASINS SHALL BE VERIFIED BY PERFORMING A SOIL TEST PIT AT THEIR PROPOSED LOCATIONS. THE CONTRACTOR SHALL SCHEDULE AND EXECUTE THE SOIL TEST PITS AS SOON AS IT IS POSSIBLE TO ACCESS THESE LOCATIONS ADEQUATELY. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IN ADVANCE TO COORDINATE FOR A CITY OF NEWTON SOIL EVALUATOR TO BE PRESENT DURING THE EXECUTION OF THE SOIL TEST PITS. THE CONTRACTOR WILL BE NOTIFIED AS TO WHETHER THE LEACHING BASINS WILL BE INSTALLED AS BEING PROPOSED ONCE THE RESULTS OF THE SOIL TEST PITS HAVE BEEN REVIEWED BY THE ENGINEER.

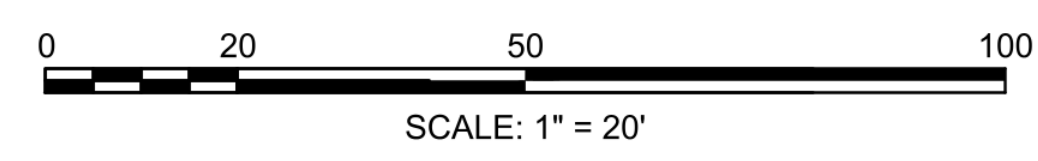
- PROPOSED IRRIGATION:**
1. CONTRACTOR SHALL DESIGN AND INSTALL AN UNDERGROUND IRRIGATION SYSTEM THAT COVERS THE ENTIRE STONE DUST SURFACE OF THE DOG PARK.
 2. CONTRACTOR SHALL SUBMIT THIS PROPOSED DESIGN, INCLUDING LAYOUT, DETAILS, SHOP DRAWINGS AND SPECIFICATIONS TO THE ENGINEER FOR APPROVAL PRIOR TO ITS INSTALLATION.
 3. CONTRACTOR SHALL TAP OFF 2 1/2" MAIN LINE CLOSE TO THE EXISTING WELL AND INSTALL TWO VALVES CLOSE TO THE MAIN LINE.
 4. CONTRACTOR SHALL USE 1 1/2" POLY PIPE FOR THE LATERAL LINE (NOT PVC).
 5. NO PORTION OF THE UNDERGROUND IRRIGATION SYSTEM SHALL BE INSTALLED UNDER THE NEW TENNIS COURTS.

- LEGEND:**
- PROPOSED ASPHALT WALKWAY/SURFACE
 - PROPOSED FULL DEPTH TENNIS COURT RECONSTRUCTION
 - PROPOSED LOAM AND SEED
 - PROPOSED DECOMPOSED GRANITE

CITY OF NEWTON
MASSACHUSETTS
CONSTRUCTION PLAN
FOR THE
RECONSTRUCTION
OF THE
MCGRATH TENNIS COURTS & OFF LEASH AREA
PAGE 5 OF 9
SCALE: AS NOTED
DATE: 8/1/2017



PLAN VIEW - MCGRATH TENNIS COURTS
1"=20'

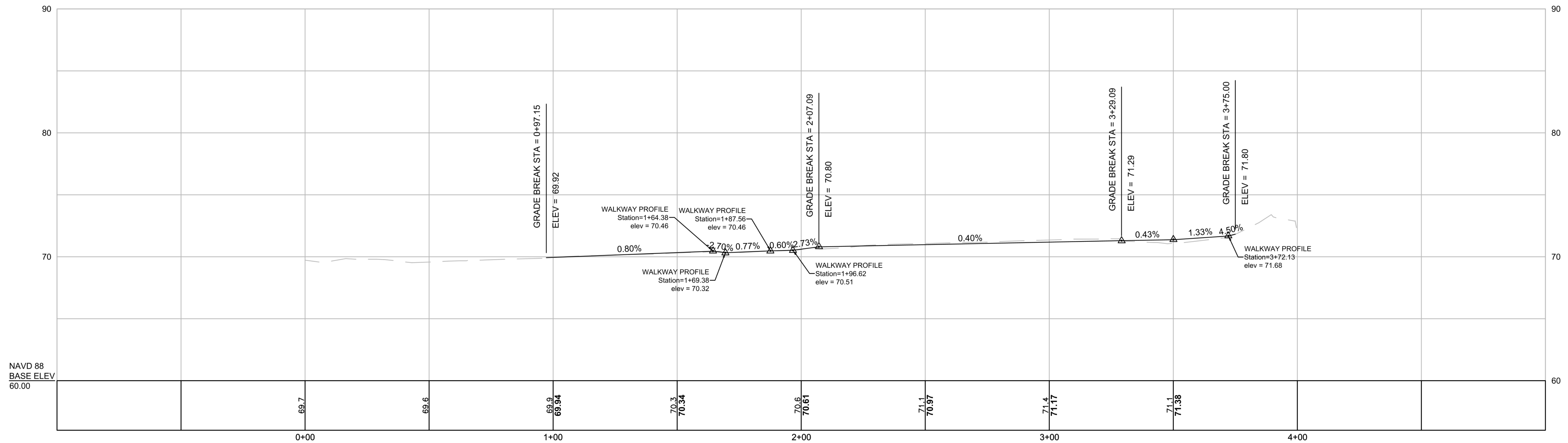


CITY OF NEWTON
MASSACHUSETTS
ALIGNMENT AND GRADING PLAN
FOR THE
RECONSTRUCTION
OF THE
MCGRATH TENNIS COURTS & OFF LEASH AREA
PAGE 6 OF 9
SCALE: AS NOTED
DATE: 8/1/2017

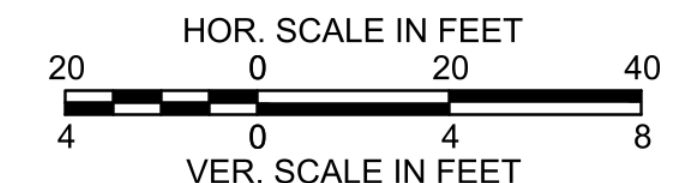


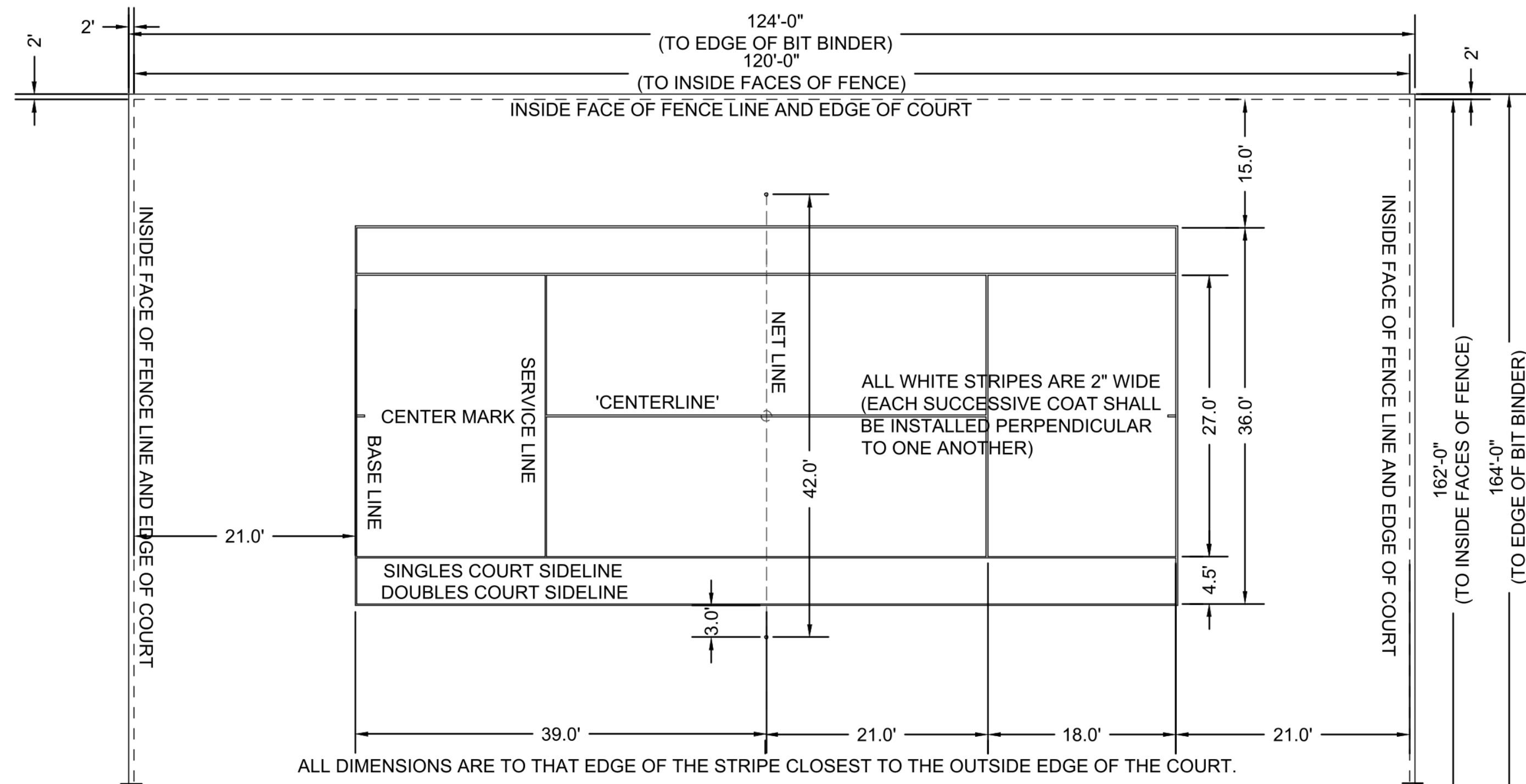
CITY OF NEWTON
MASSACHUSETTS

DESIGNED BY: A.VARGAS
DRAWN BY: M.PANZA
CHECKED BY: J.DAGHIAN
APPROVED BY: L.TAVERNA



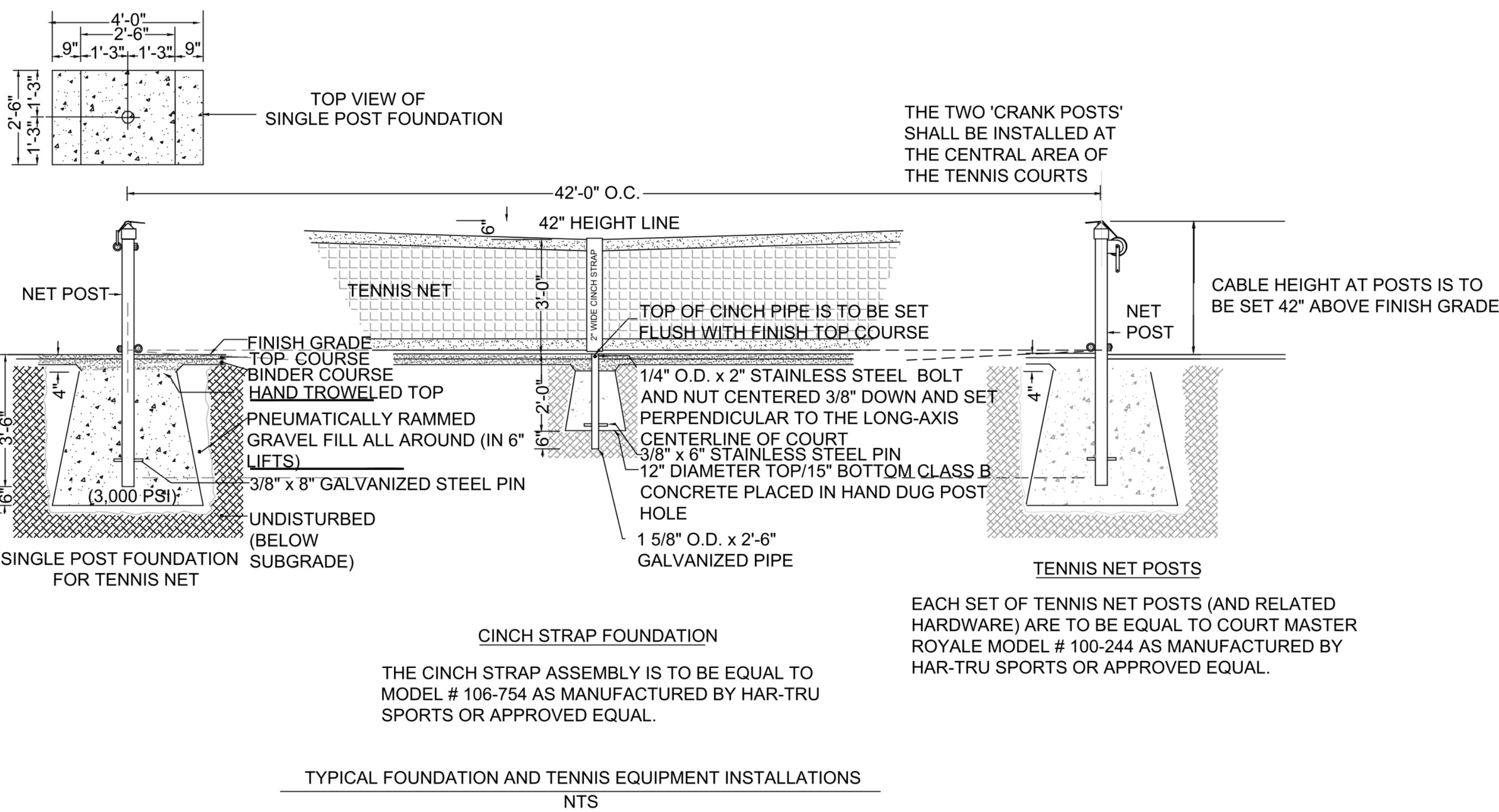
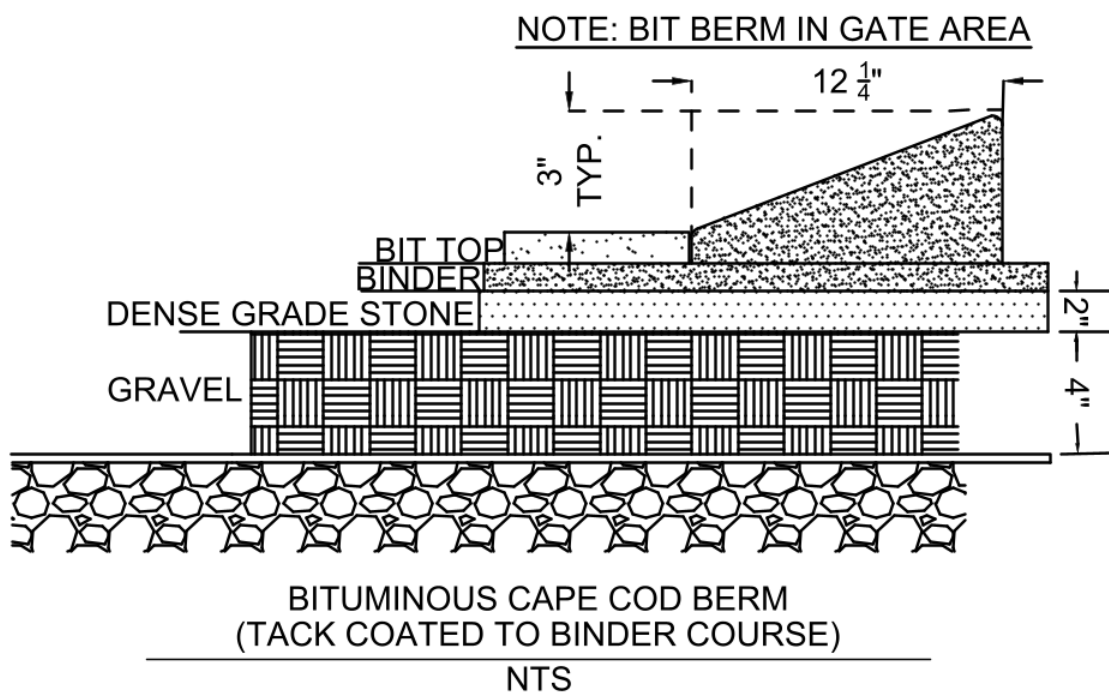
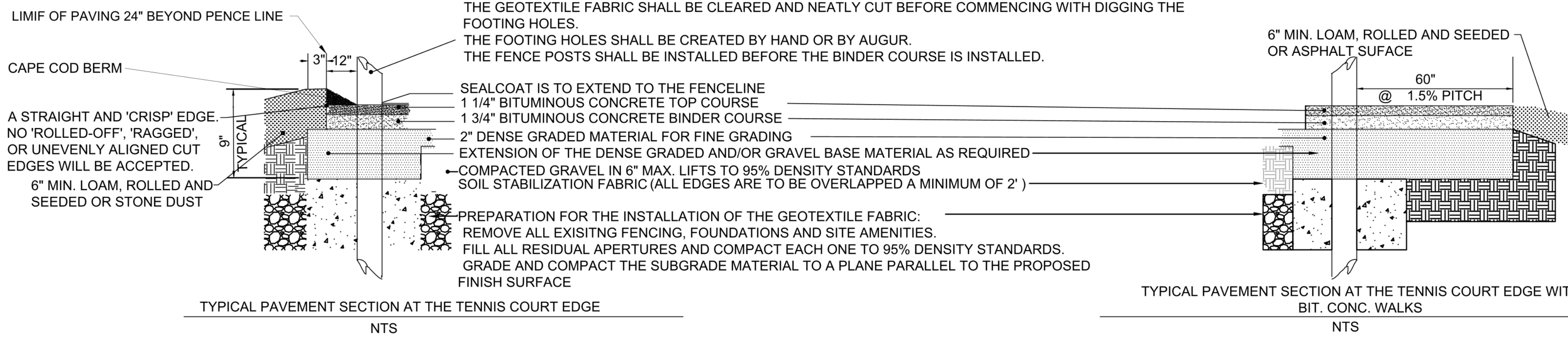
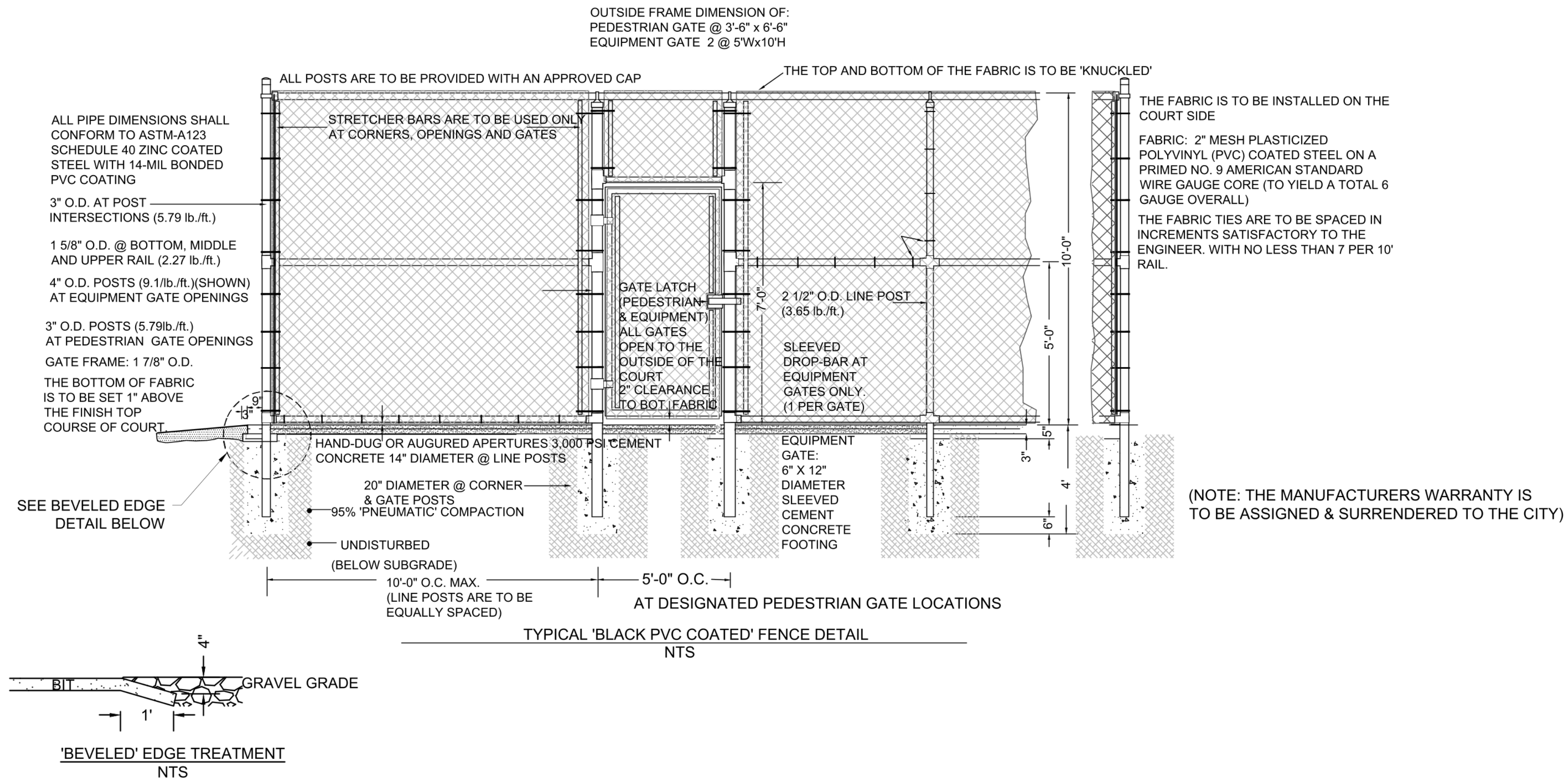
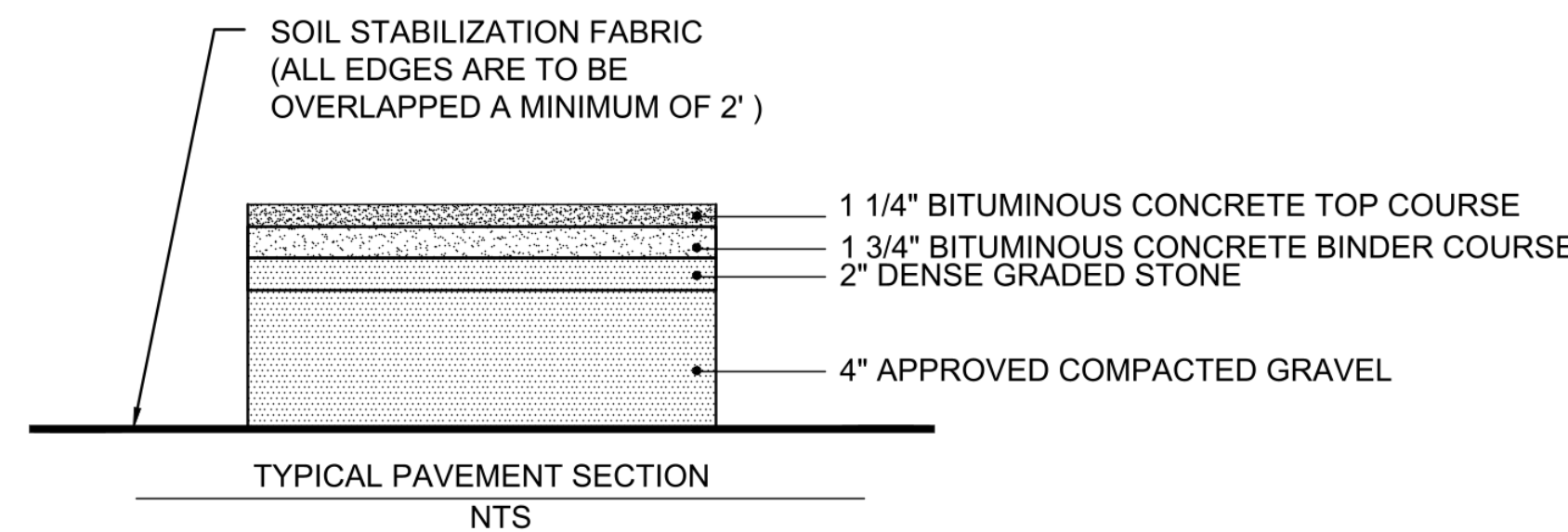
WALKWAY PROFILE





- NOTE:
- 1) THE CONTRACTOR SHALL LAYOUT THE CORNERS OF ALL COURTS PRIOR TO PAINTING FOR APPROVAL BY THE OWNER
 - 2) ALL COURTS SHALL BE SPACED 12' APART, OUTSIDE EDGE TO OUTSIDE EDGE.
 - 3) BASE COAT (& LEVELER) 2 COATS SEALCOAT
 - 4) ALL COLORS TO BE DETERMINED BY THE OWNER PRIOR TO APPLICATION.

TENNIS COURT LAYOUT & STRIPING PLAN
NTS



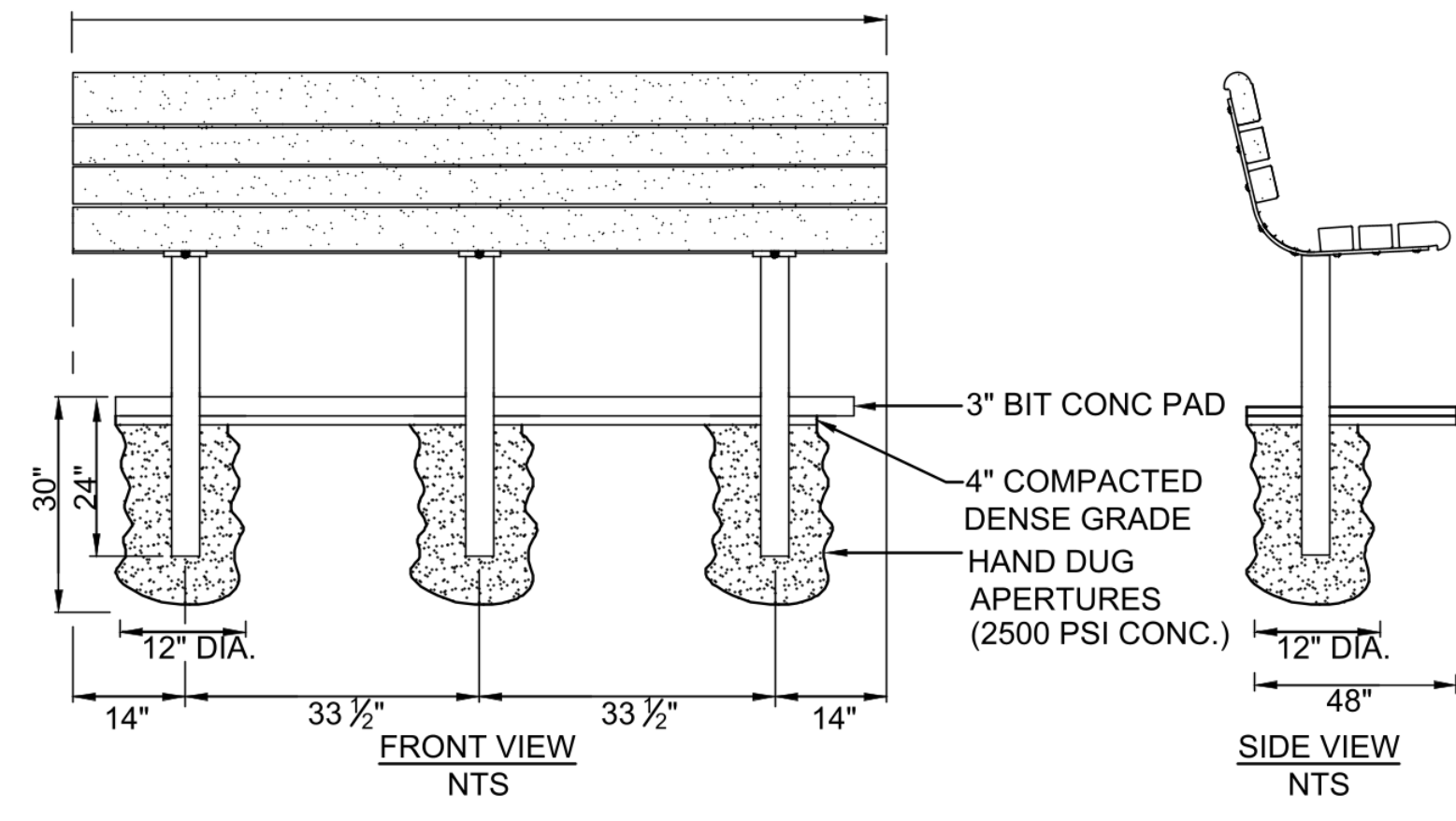
CITY OF NEWTON
MASSACHUSETTS

DESIGNED BY: A. VARGAS
DRAWN BY: M. PANZA
CHECKED BY: J. DAGHIAN
APPROVED BY: J. TAVERNA



CITY OF NEWTON
MASSACHUSETTS

DESIGNED BY: A. VARGAS
DRAWN BY: M. PANZA
CHECKED BY: J. DAGHIAN
APPROVED BY: L. TAVERNA



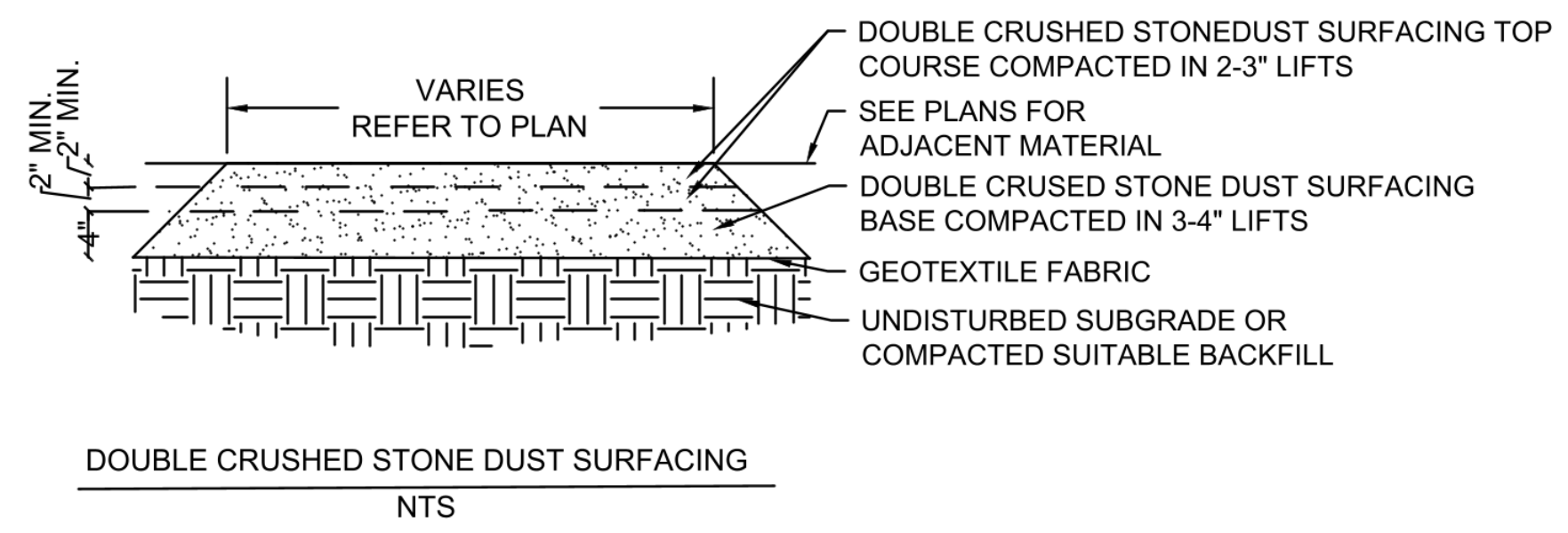
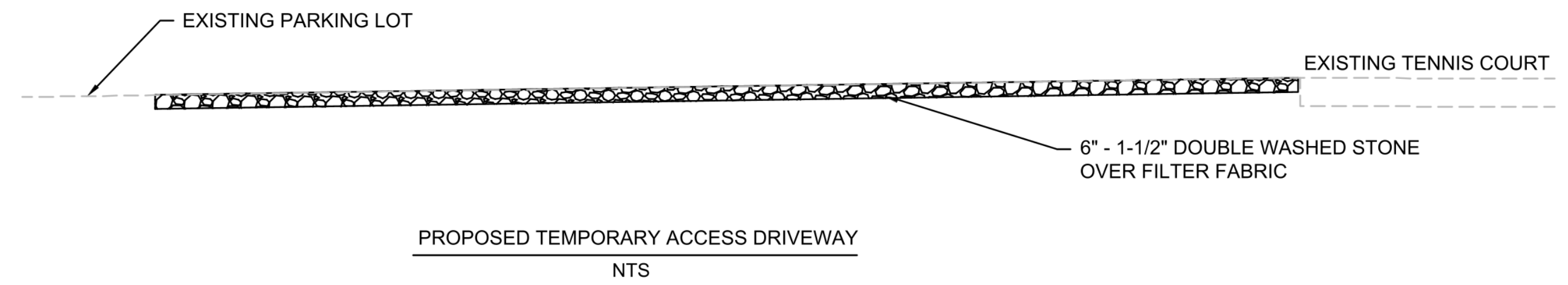
RECYCLED PLASTIC BENCH
NTS

BENCH NOTES:

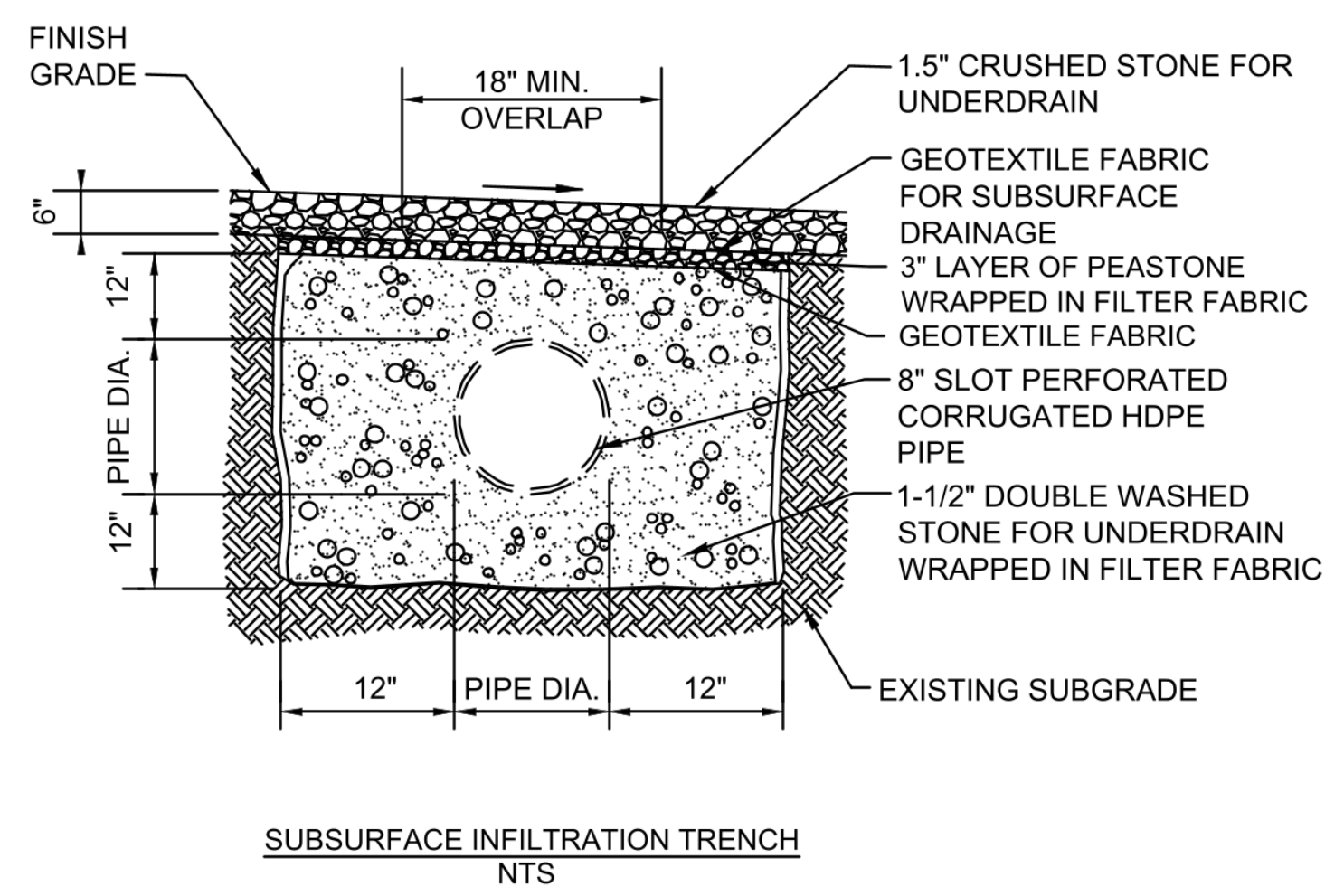
1. THE CONTRACTOR IS TO INSTALL BENCHES USING STANDARD FOOTINGS.
2. THE BENCH SHALL BE SET PLUMB AND LEVEL.

NOTES:

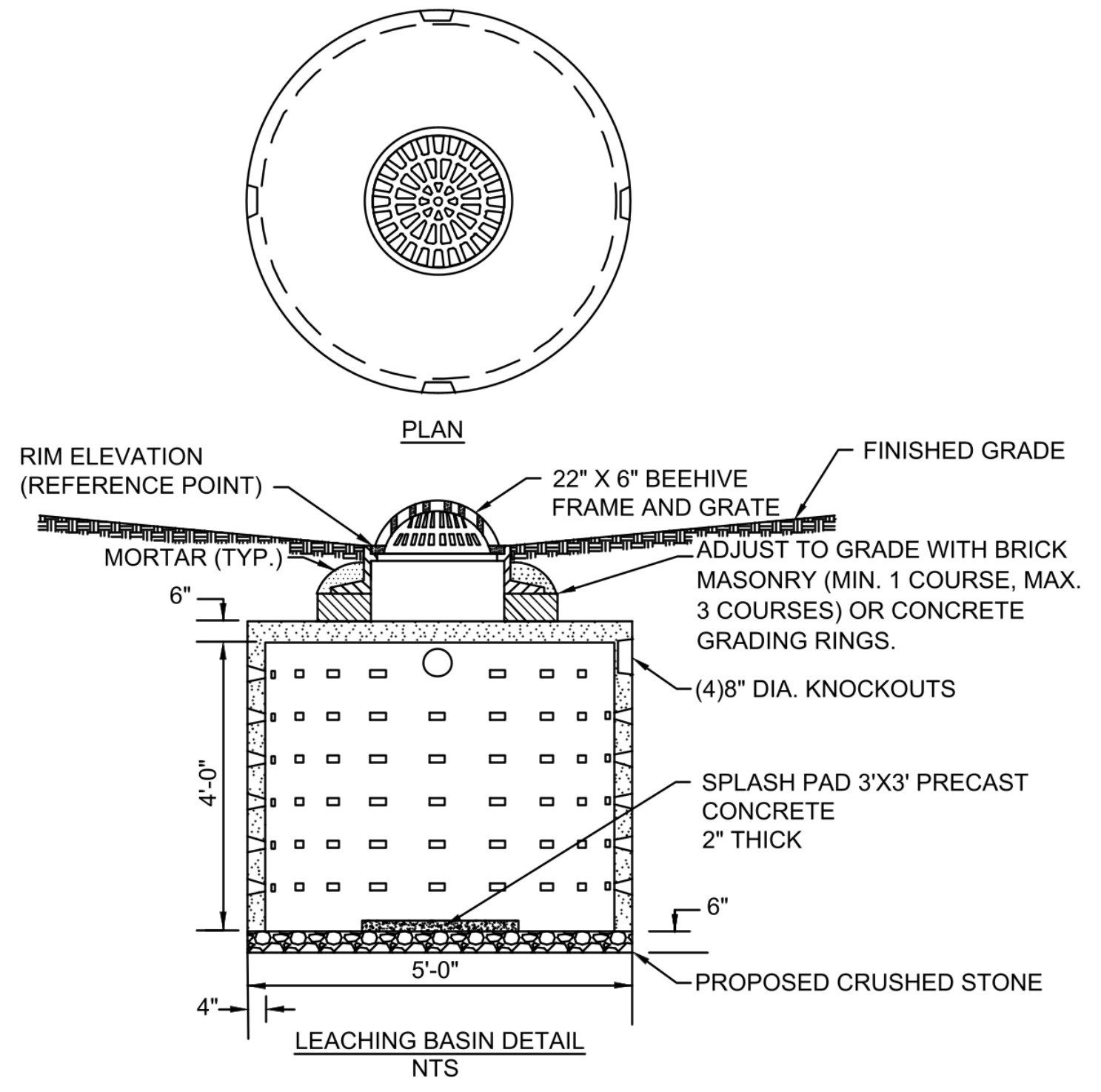
- 1) THE CONTRACTOR SHALL REMOVE THE TEMPORARY DRIVEWAY AFTER THE TENNIS COURTS AND DOG PARK HAVE BEEN CONSTRUCTED AND RESTORE THE AREA AS PROPOSED IN THE CONSTRUCTION PLAN AND/OR AS DIRECTED BY THE ENGINEER.
- 2) THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH SHALL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHT-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR OR CLEAN OUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHT-OF-WAY MUST BE REMOVED IMMEDIATELY.
- 3) PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED INCLUSIVE OF THIS ITEM.



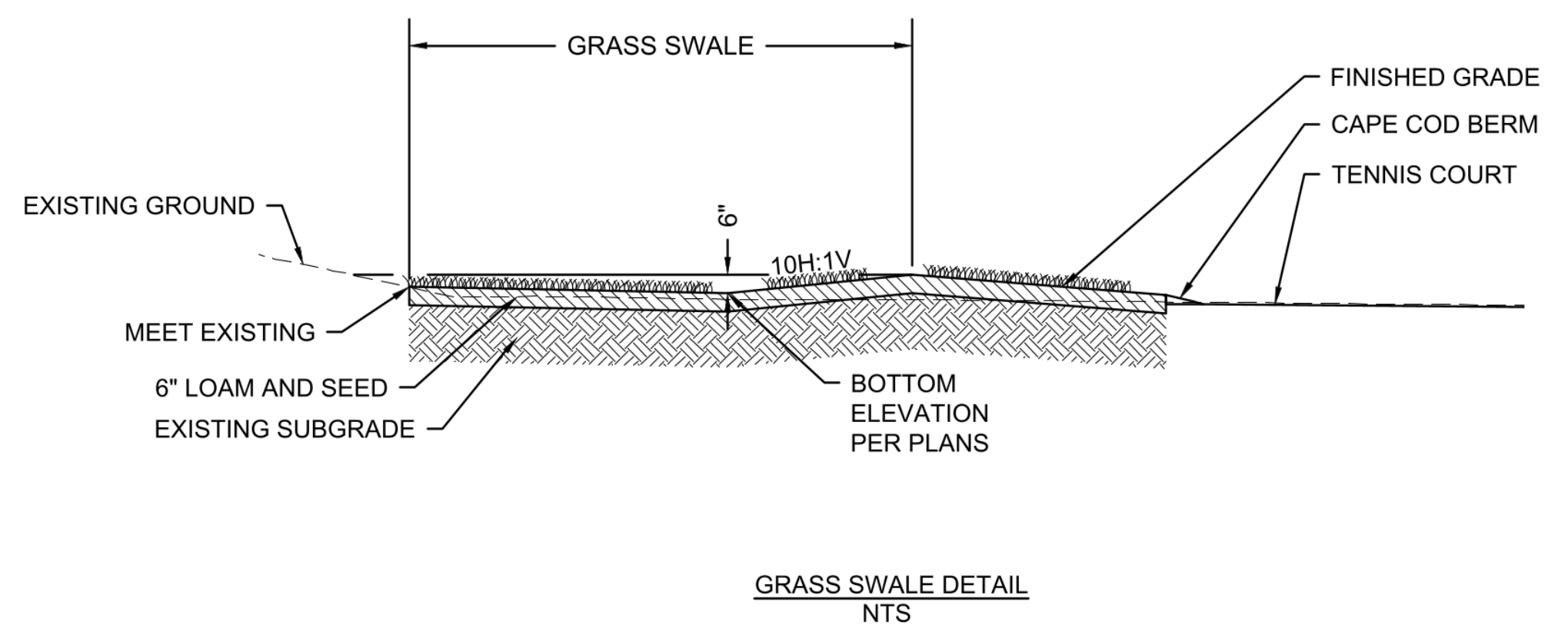
DOUBLE CRUSHED STONE DUST SURFACING
NTS



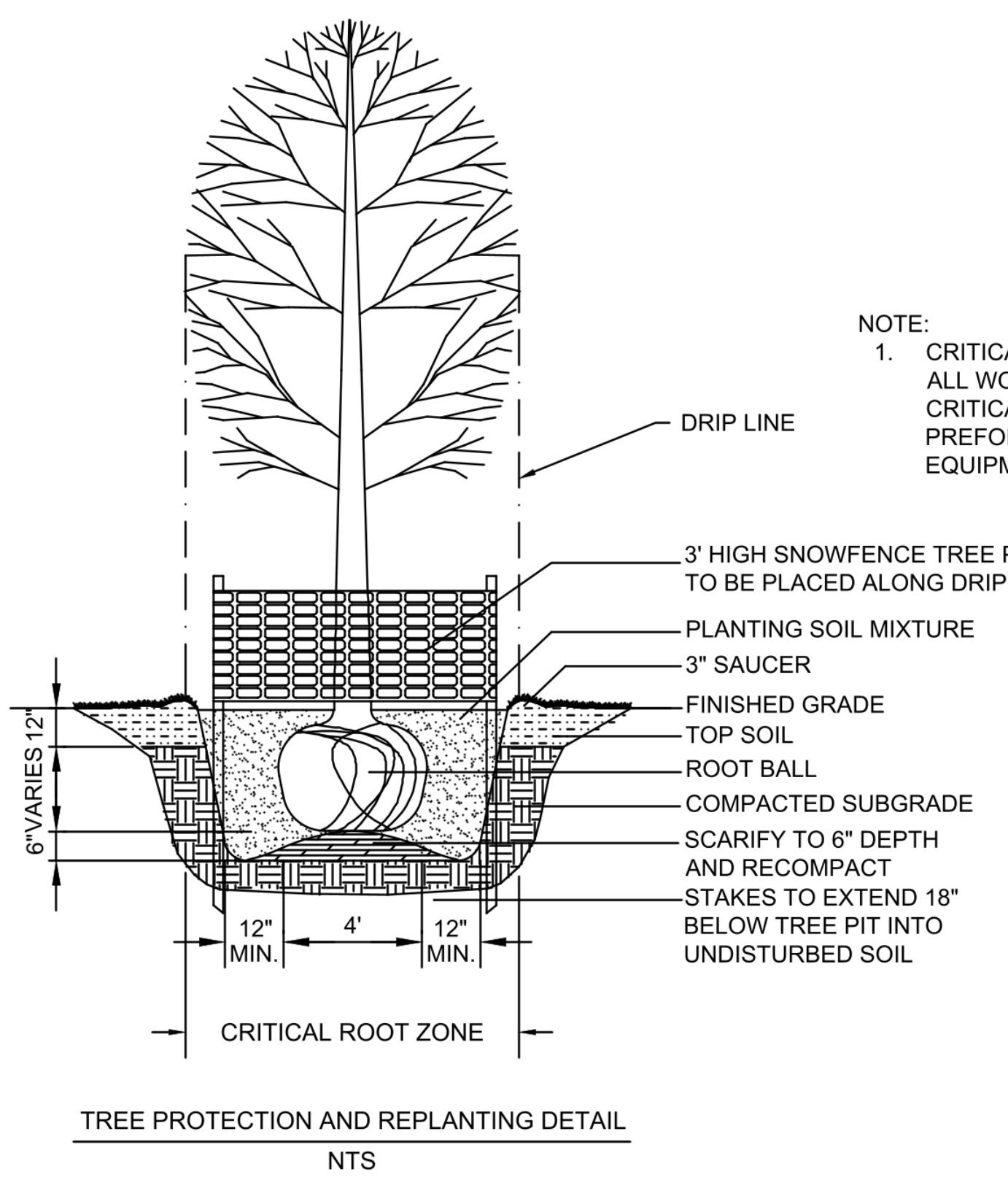
SUBSURFACE INFILTRATION TRENCH
NTS



NOTE:
LEACHING BASIN SHALL BE DESIGNED TO HOLD H-20 LOADING



GRASS SWALE DETAIL
NTS



TREE PROTECTION AND REPLANTING DETAIL
NTS

NOTE:

1. CRITICAL ROOT ZONE TO BE PROTECTED. ALL WORK NECESSARY WITHIN THE CRITICAL ROOT ZONE SHALL BE PREFORMED BY HAND AND LIGHT EQUIPMENT.

CITY OF NEWTON
MASSACHUSETTS
CONSTRUCTION DETAILS
FOR THE
RECONSTRUCTION
OF THE
MCGRATH TENNIS COURTS & OFF LEASH AREA
PAGE 9 OF 9
SCALE: AS NOTED
DATE: 8/1/2017