

# SITE DEVELOPMENT PLANS

FOR

## 176- 210 GROVE STREET FRANKLIN, MA

FEBRUARY 14, 2020

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LOCATION MAP

### OWNER/APPLICANT:

MCP III 176 GROVE LLC & MCP III 210 GROVE LLC  
260 FRANKLIN STREET, STE 620  
BOSTON, MA 02110

### CIVIL ENGINEERS:

KELLY ENGINEERING GROUP, INC.  
0 CAMPANELLI DRIVE  
BRAINTREE, MA 02184

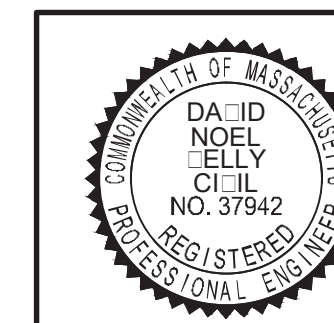
### LANDSCAPE ARCHITECT:

HAWK DESIGN INC.  
P.O. BOX 1309  
SANDWICH, MA 02563

APPROVED BY THE FRANKLIN PLANNING BOARD

APPROVED DATE \_\_\_\_\_

Digitally signed by David Noel  
Kelly P.E.  
DN: cn=David Noel Kelly P.E.,  
o=Kelly Engineering Group, Inc.,  
ou,  
email=dnoel@kellyengineeringgroup.com, c=US  
Date: 2021.08.06 09:17:58 -0400



SCALE	JOB #
DATE	DRAWN BY
SHEET	CHKD BY
FILE #	APPD BY
2019-127-TS07	DNK



176- 210 GROVE STREET  
FRANKLIN, MA

KELLY ENGINEERING GROUP  
civil engineering consultants  
0 Campanelli Drive, Braintree, MA 02184  
Phone: 781-843-4333 www.kellyengineeringgroup.com

SHEET NO.  
**1**

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**ZONE: INDUSTRIAL, WATER RESOURCE DISTRICT**

(NOTE 5)

	REQUIRED	PROVIDED (176)	PROVIDED (206)	PROVIDED (210)	COMPLIANCE
		LOT 1	LOT 2	LOT 3	
MIN LOT AREA	40,000 S.F.	653,400 S.F.	444,931 S.F.	456,067 S.F.	YES
MIN. FRONTAGE	175'	175'	>175'	>175'	YES
MIN. DEPTH	200'	>200'	>200'	>200'	YES
MIN. WIDTH	157.3' DIA. CIRCLE	>157.5'	>157.5'	>157.5'	YES
MIN YARD					
FRONT	40'	448.4' +/-	249.7' +/-	125.5' +/-	YES
SIDE	30'	31.8' +/- (NOTE 2)	61.0' +/- (NOTE 2)	30.1' +/- (NOTE 2)	YES
REAR	30'	92.2' +/-	125.4'	44.7' +/-	YES
MAX STORIES	3	1	1	1	YES
MAX HEIGHT	NA	<45'	<45'	<45'	N/A
LOT COVERAGE	80%	58.0%	70.3%	72.9%	YES
BUILDING COVERAGE	70%	25.7%	33.7%	36.0%	YES
PARKING					
TOTAL	487	(NOTE 3)	(NOTE 3)	(NOTE 3)	(NOTE 3)
SIZE	9'x19'	9'x19'	9'x19'	9'x19'	YES
HAZARD	24'	24'	24'	24'	YES
HANDICAP	PARKING LEGEND	PARKING LEGEND	PARKING LEGEND	PARKING LEGEND	YES
PARKING SETBACKS					
FRONT	10'	>10'	>10'	70' +/-	YES
SIDE	N/A	N/A	N/A	N/A	N/A
REAR	N/A	N/A	N/A	N/A	N/A
BUILDING	N/A	N/A	N/A	N/A	N/A

NOTES:

1. PARKING: REQUIRED PARKING FOR WAREHOUSE = 1 SPACE PER 1000 SF
2. BUILDINGS 176 AND 210 ARE LESS THAN 30' HIGH. SIDE YARD SETBACKS ARE GREATER THAN 30'. PROPOSED BUILDING 206 WILL BE APPROX. 45' HIGH. SIDE YARD SETBACK IS 102' AND THEREFORE SIDE YARD COMPLIES WITH BY LAW SECTION ATTACHEMENT 9 FOOT NOTE 8 FOR SETBACKS TO A RESIDENTIAL USE.
3. PER PLANNING BOARD DETERMINATION.
4. 18 SPACES ON OR PARTIALLY ON LOT 2 ARE FOR USE BY LOT 1
5. 55 SPACES LOCATED ON LOT 1 ARE FOR USE BY LOT 2
6. SEE APPROVAL NOT REQUIRED PLAN DATED 11/16/20 FOR ACTUAL METES AND BOUNDS, CIRCLE DIAMETER ETC.

**PARKING LEGEND**

BUILDING	BUILDING AREA (SF)	PARKING REQUIRED (NOTE 1)	PARKING PROVIDED	HANDICAP PARKING REQUIRED	HANDICAP PARKING PROVIDED	LOADING PROVIDED
176 GROVE	169,968	170	195 (NOTE 4)	6	6	65 +/-
206 GROVE	150,000	150	199 (NOTE 4)	6	6	34 +/-
210 GROVE	166,757	167	113	5	5	15 +/-
TOTAL	486,725	487	507	17	17	114 +/-

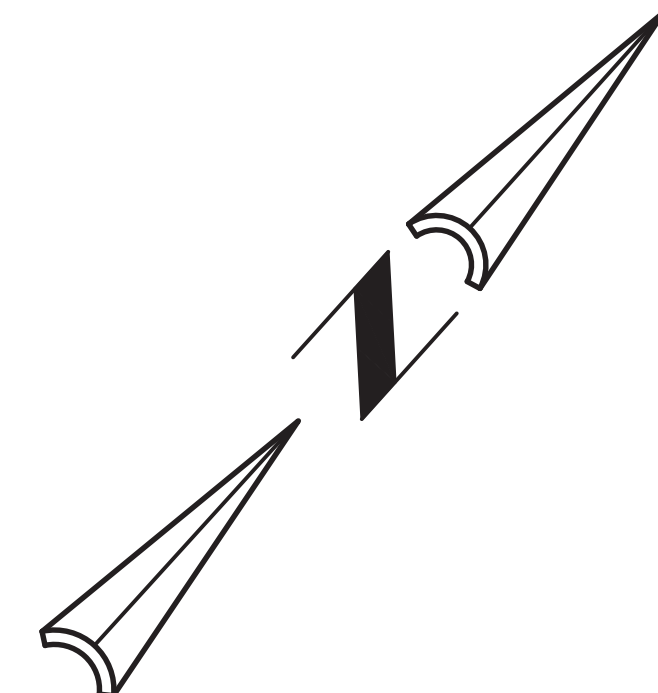
\*ALLOWED BY 9/15/2015 PLANNING BOARD DECISION

**EXISTING LEGEND**

	HANDICAP SPACE
	UTILITY POLE
	PROPERTY LINE
	INTERIOR LOT LINE TO BE ELIMINATED

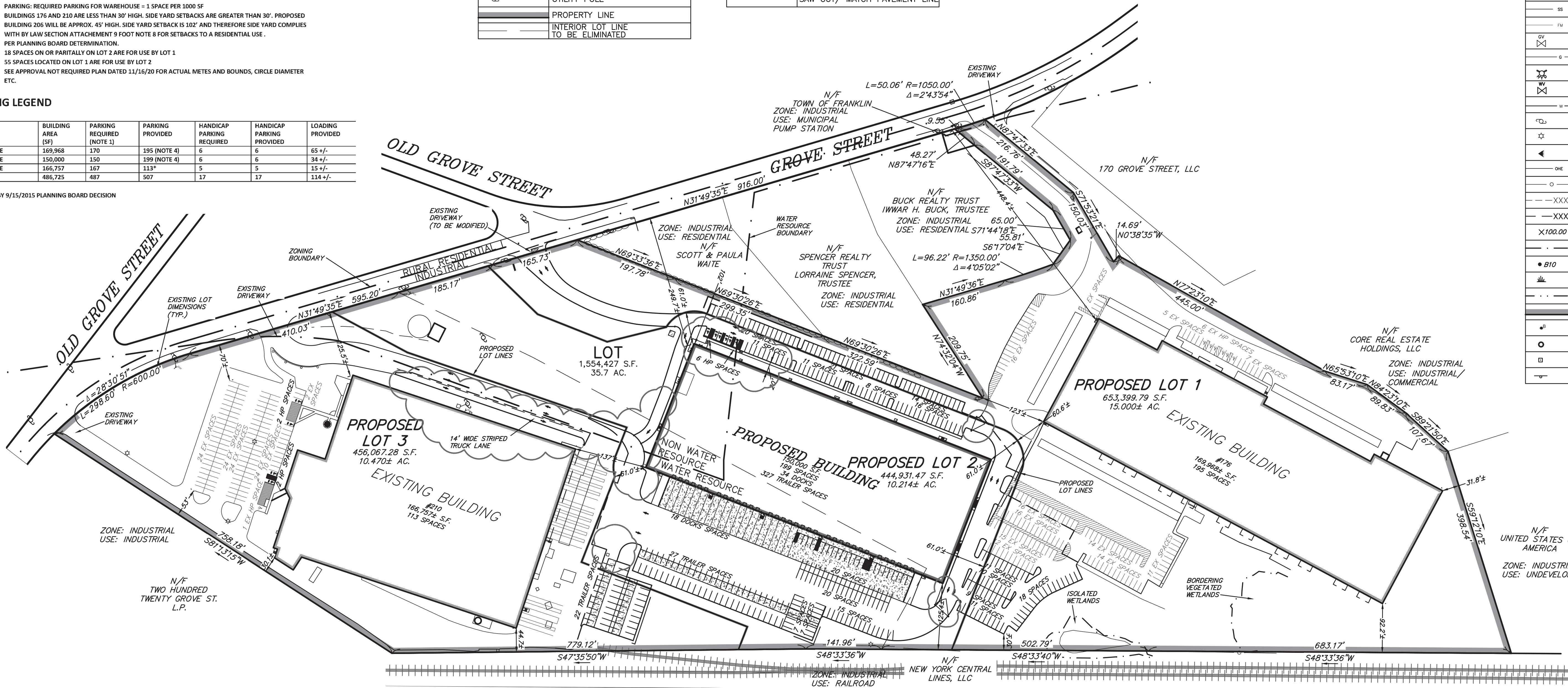
**PROPOSED LEGEND**

	HANDICAP SPACE
	SAW CUT/ MATCH PAVEMENT LINE



**SHEET 2 LEGEND**

	CAPE COD BERM
	VERTICAL GRANITE CURB
	CONCRETE
	BITUMINOUS CONCRETE CURB
	HANDICAP SPACE
	LANDSCAPED AREA
	CATCH BASIN
	DOUBLE CATCH BASIN
	AREA DRAIN
	TRENCH DRAIN
	DRAIN MANHOLE
	STORM CEPTOR
	DRAIN LINE
	ROOF DRAIN LINE
	AREA DRAIN LINE
	SEWER MANHOLE
	SEWER LINE
	SEWER FORCE MAIN
	GAS VALVE
	GAS LINE
	HYDRANT
	WATER VALVE
	WATER LINE
	UTILITY POLE
	LIGHT POLE
	FLOOD LIGHT
	OVERHEAD ELECTRIC LINE
	CHAIN LINK FENCE
	CONTOUR LINE (MNR)
	CONTOUR LINE (MUR)
	SPOT GRADE
	EDGE OF WETLANDS
	WETLANDS FLAG
	WETLANDS
	FLOOD PLAIN
	PROPERTY LINE
	BOLLARD
	IRON PIPE
	BOUND
	SIGN



**NOTES: (FOR SHEET 3)**

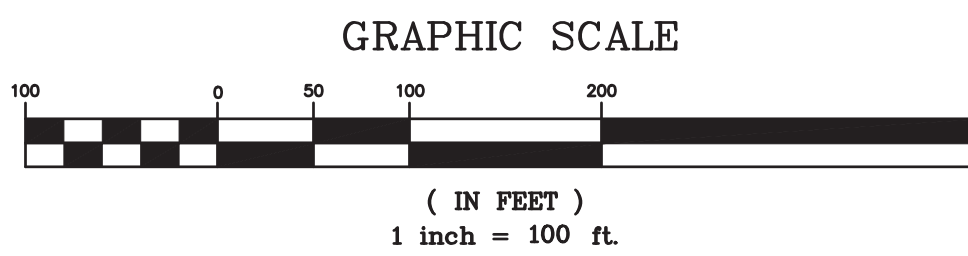
- 1.) UNDERGROUND FEATURES HAVE BEEN COMPILED, IN PART, BASED UPON INFORMATION FURNISHED BY OTHERS. THIS INFORMATION IS TO BE CONSIDERED APPROXIMATE AND KELLY ENGINEERING GROUP, INC. DOES NOT TAKE RESPONSIBILITY FOR SUBSEQUENT ERRORS OR OMISSIONS WHICH MAY HAVE BEEN INCORPORATED INTO THIS PLAN AS A RESULT. ADDITIONALLY, OTHER SUCH FEATURES MAY EXIST ON THE SITE, THE EXISTENCE OF WHICH ARE UNKNOWN TO KELLY ENGINEERING GROUP, INC. THE SIZE, LOCATION, AND EXISTENCE OF ALL SUCH FEATURES MUST BE VERIFIED BY THE APPROPRIATE AUTHORITIES PRIOR TO CONSTRUCTION.
- 2.) THE LOCATION OF ALL UTILITIES SHOWN HEREON HAVE BEEN ESTABLISHED USING ASCE 38-02 (STANDARD GUIDELINES FOR THE COLLECTION AND DEPICTION OF EXISTING SUBSURFACE UTILITY DATA) QUALITY LEVEL C.
- 3.) THE SITE DETAIL AND SURFACE IMPROVEMENTS DEPICTED HEREON WERE OBTAINED FROM AN ON THE GROUND SURVEY PERFORMED BY KELLY ENGINEERING GROUP IN NOVEMBER AND DECEMBER OF 2019.
- 4.) ELEVATIONS SHOWN HEREON ARE BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88) ESTABLISHED BY RTK GPS CONNECTED TO MGCORS. CONTOURS SHOWN WERE OBTAINED FROM ON THE GROUND SURVEY AND LIDAR DATA OBTAINED FROM NOAA AND CONFIRMED BY KELLY ENGINEERING GROUP, INC.
- 5.) WETLAND FLAGS SHOWN WERE FLAGGED BY ECOTEC, INC AND WERE LOCATED BY KELLY ENGINEERING GROUP, INC.

**CURRENT OWNER**

210 GROVE ST  
 CURRENT OWNER: MCP III 210 GROVE LLC  
 C/O MARCUS PARTNERS INC.  
 PARCEL ID: 311-002  
 176 GROVE ST  
 CURRENT OWNER: MCP III 176 GROVE LLC  
 C/O MARCUS PARTNERS INC.  
 PARCEL ID: 311-001

APPROVED BY THE FRANKLIN PLANNING BOARD

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 APPROVED DATE \_\_\_\_\_



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SCALE	4. 10/01/20	PER TENANT COORDINATION
1"= 100'	3. 07/28/20	PLANNING BOARD COMMENTS
DATE	2. 06/02/20	PER PEER REVIEW
02/14/20	1. 04/10/20	PER PEER REVIEW
SHEET	REV	DATE
2 of 13		
FILE #		
2019-127-LA07		
JOB #		
F:\P\2019-127		
DRAWN BY		
C/L		
CHKD BY		
GSH		
APPD BY		
DNK		

**MARCUS PARTNERS**  
 176- 210 GROVE STREET  
 FRANKLIN, MA

**OVERALL LAYOUT PLAN**

**KELLY ENGINEERING GROUP**  
 civil engineering consultants  
 0 Campanelli Drive, Braintree, MA 02184  
 Phone: 781-843-4333 www.kellyengineeringgroup.com



Steven Horsfall  
 2021.08.06  
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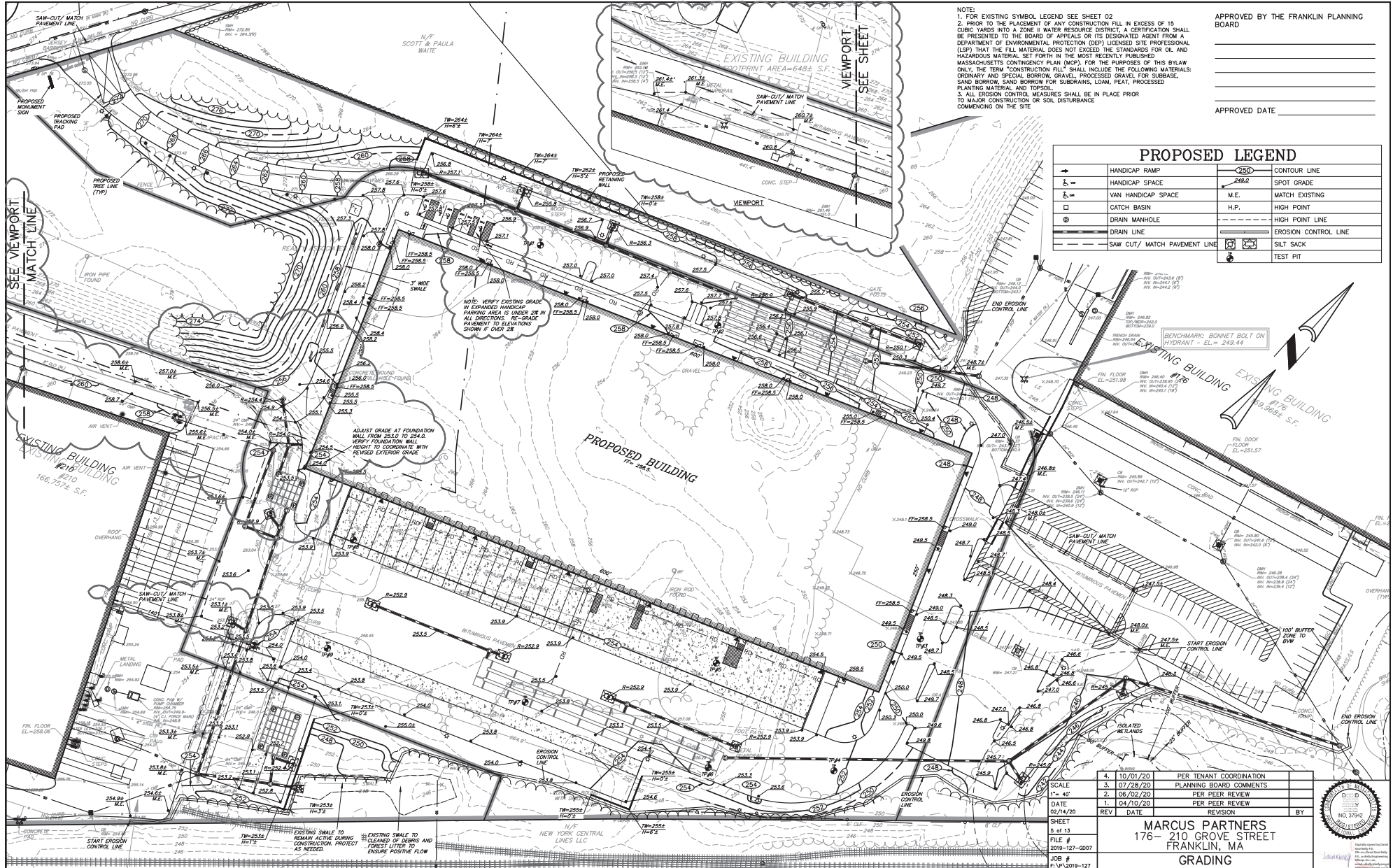


Digitally signed by David Noel Kelly P.E.  
 DN: cn=David Noel Kelly P.E., o=Kelly Engineering Group, Inc., email=dnk@kellyengineeringgroup.com, c=US  
 Date: 2021.08.06 09:29:01 -04'00'

SHEET NO.  
**2**



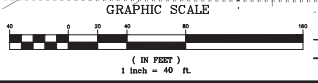




ALL CONSTRUCTION SHALL BE RESPONSIBLE FOR CONSTRUCTION OF ALL RETAINING STRUCTURES, OR PROTECTIVE STRUCTURES, IN PROVISIONS UTILIZED BY THE GRADING PLAN. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE FAILURE OF THE CONTRACTOR TO CARRY OUT THE OBLIGATIONS OF THE CONTRACTOR UNDER THE CONTRACT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE FAILURE OF THE CONTRACTOR TO CARRY OUT THE OBLIGATIONS OF THE CONTRACTOR UNDER THE CONTRACT.

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7.	08/06/21	TENANT REVISIONS
6.	07/01/21	EXPANDED TENANT PARKING
5.	11/16/20	PLANNING BOARD COMMENTS & LOT LINES

4. 10/01/20 PER TENANT COORDINATION  
 3. 07/28/20 PLANNING BOARD COMMENTS  
 2. 06/02/20 PER PEER REVIEW  
 1. 04/10/20 PER PEER REVIEW

SCALE  
1" = 40'

DATE  
02/14/20

REV DATE REVISION BY

**MARCUS PARTNERS**  
176 - 210 GROVE STREET  
FRANKLIN, MA

**GRADING PLAN**

**KELLY ENGINEERING GROUP**  
civil engineering consultants  
0 Campelli Drive, Braintree, MA 02184  
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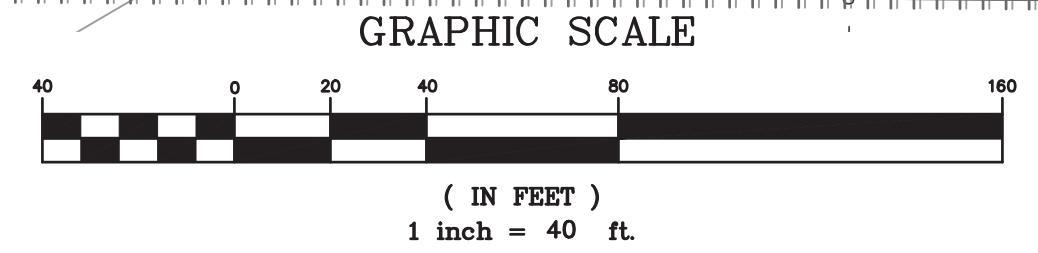
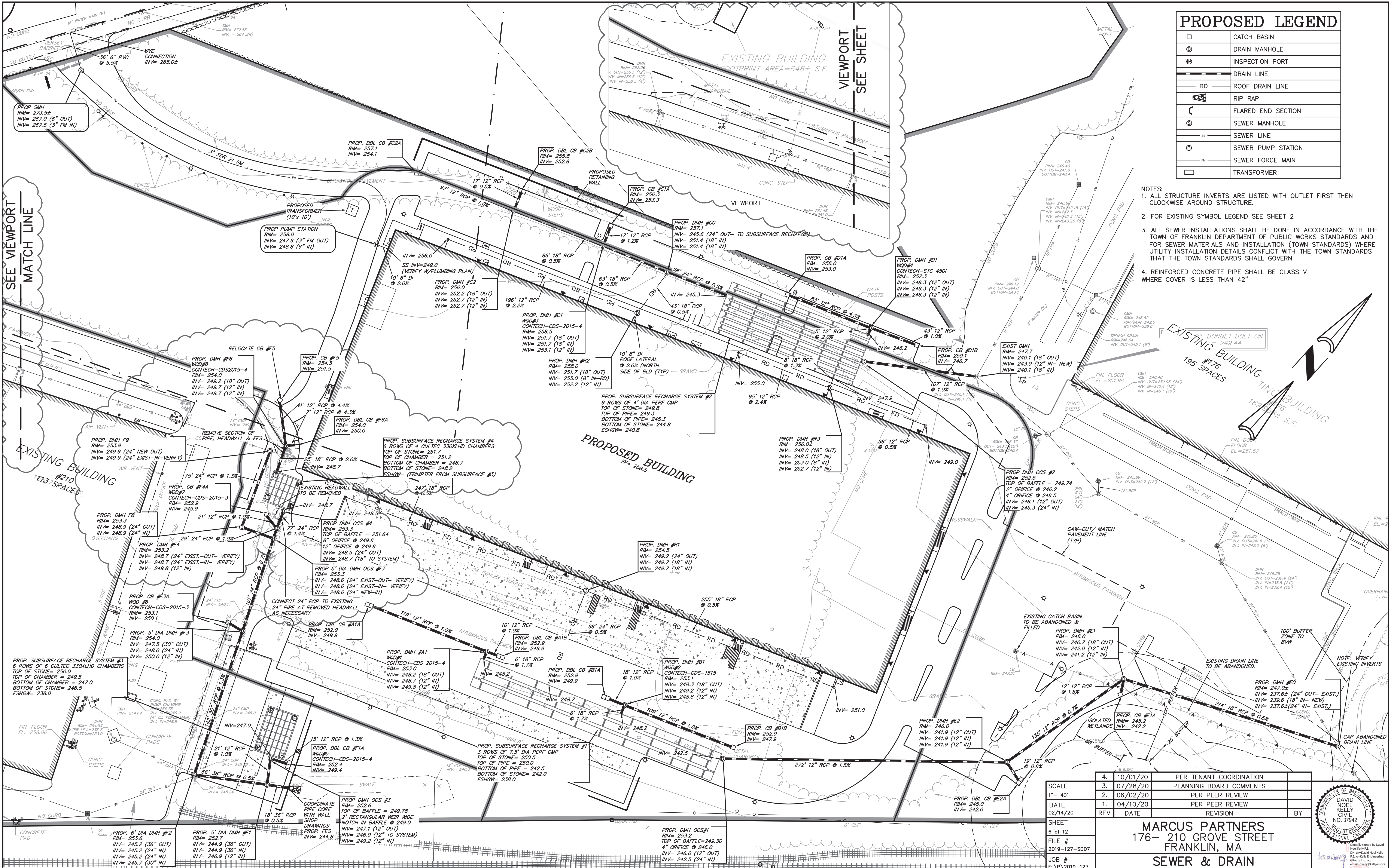


SHEET NO.  
**5**

**PROPOSED LEGEND**

□	CATCH BASIN
⊙	DRAIN MANHOLE
⊕	INSPECTION PORT
—	DRAIN LINE
— RD	ROOF DRAIN LINE
—	RIP RAP
⌒	FLARED END SECTION
⊙	SEWER MANHOLE
—	SEWER LINE
⊕	SEWER PUMP STATION
— FM	SEWER FORCE MAIN
⊠	TRANSFORMER

- NOTES:
1. ALL STRUCTURE INVERTS ARE LISTED WITH OUTLET FIRST THEN CLOCKWISE AROUND STRUCTURE.
  2. FOR EXISTING SYMBOL LEGEND SEE SHEET 2
  3. ALL SEWER INSTALLATIONS SHALL BE DONE IN ACCORDANCE WITH THE TOWN OF FRANKLIN DEPARTMENT OF PUBLIC WORKS STANDARDS AND FOR SEWER MATERIALS AND INSTALLATION (TOWN STANDARDS) WHERE UTILITY INSTALLATION DETAILS CONFLICT WITH THE TOWN STANDARDS THAT THE TOWN STANDARDS SHALL GOVERN
  4. REINFORCED CONCRETE PIPE SHALL BE CLASS V WHERE COVER IS LESS THAN 42"



SCALE	4. 10/01/20	PER TENANT COORDINATION
1" = 40'	3. 07/28/20	PLANNING BOARD COMMENTS
DATE	2. 06/02/20	PER PEER REVIEW
02/14/20	1. 04/10/20	PER PEER REVIEW
SHEET	REV	DATE
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FILE #		
2019-127-S07		
JOB #		
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C.L.		
CHKD BY		
GSH		
APPD BY		
DNK		

**MARCUS PARTNERS**  
176- 210 GROVE STREET  
FRANKLIN, MA

**SEWER & DRAIN PLAN**

**KELLY ENGINEERING GROUP**  
civil engineering consultants  
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Phone: 781-843-4333 www.kellyengineeringgroup.com

**DAVID NOEL**  
REGISTERED PROFESSIONAL ENGINEER  
NO. 37942

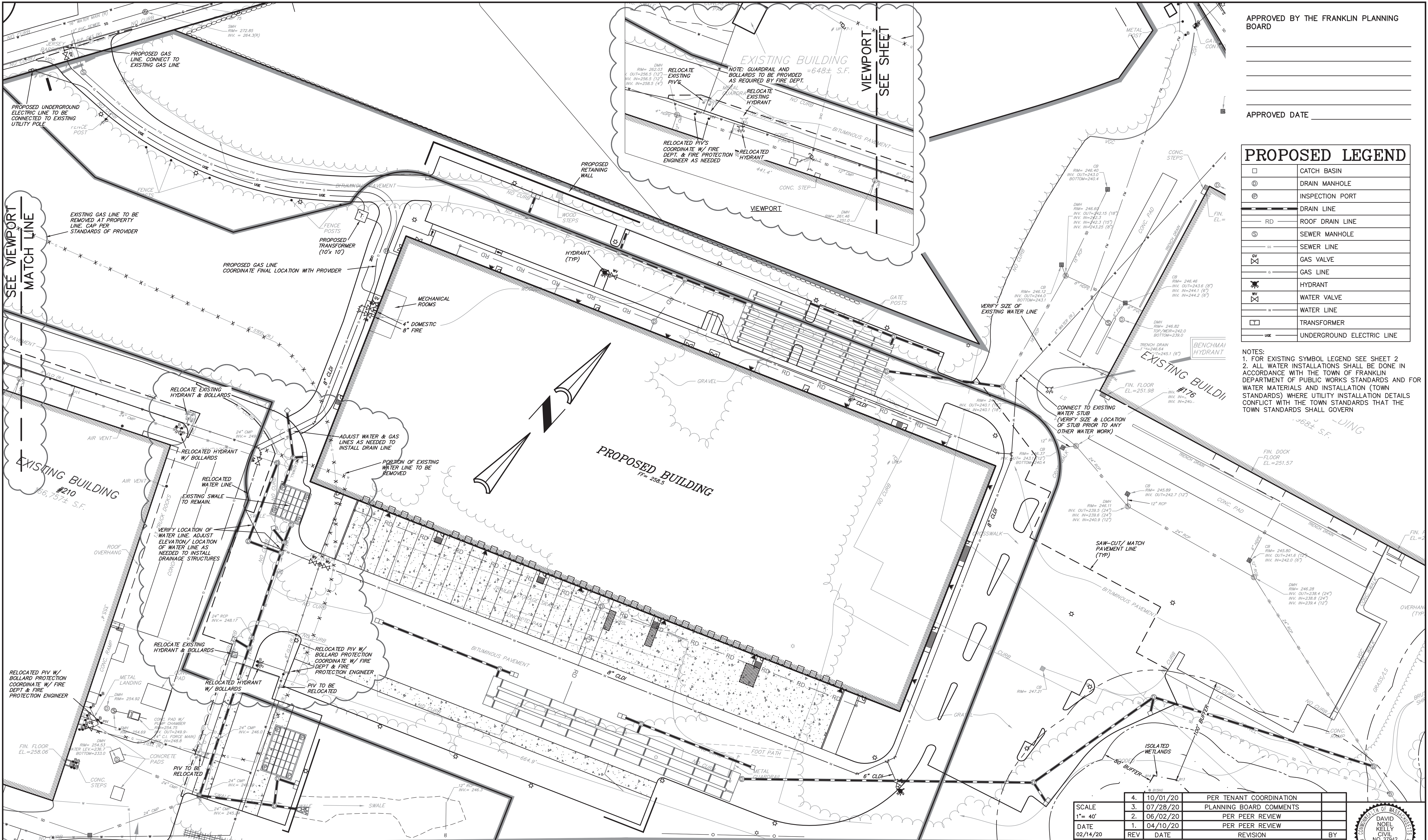
SHEET NO. **6**

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APPROVED BY THE FRANKLIN PLANNING BOARD

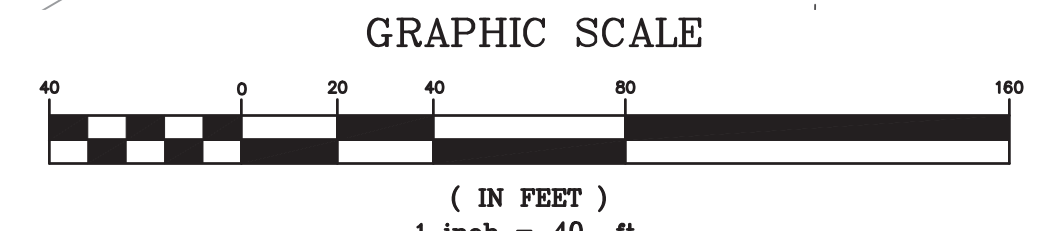
APPROVED DATE \_\_\_\_\_

**PROPOSED LEGEND**

□	CATCH BASIN
⊙	DRAIN MANHOLE
⊕	INSPECTION PORT
—	DRAIN LINE
RD	ROOF DRAIN LINE
⊙	SEWER MANHOLE
—	SEWER LINE
⊕	GAS VALVE
—	GAS LINE
⊕	HYDRANT
⊕	WATER VALVE
—	WATER LINE
⊕	TRANSFORMER
—	UNDERGROUND ELECTRIC LINE

NOTES:  
 1. FOR EXISTING SYMBOL LEGEND SEE SHEET 2  
 2. ALL WATER INSTALLATIONS SHALL BE DONE IN ACCORDANCE WITH THE TOWN OF FRANKLIN DEPARTMENT OF PUBLIC WORKS STANDARDS AND FOR WATER MATERIALS AND INSTALLATION (TOWN STANDARDS) WHERE UTILITY INSTALLATION DETAILS CONFLICT WITH THE TOWN STANDARDS THAT THE TOWN STANDARDS SHALL GOVERN

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7.	08/06/21	TENANT REVISIONS
6.	07/01/21	EXPANDED TENANT PARKING
5.	11/16/20	PLANNING BOARD COMMENTS & LOT LINES

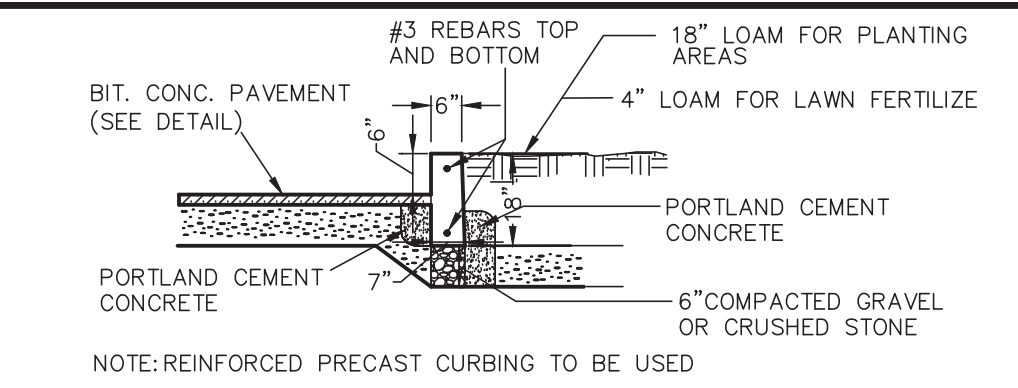
SCALE	4.	10/01/20	PER TENANT COORDINATION
1" = 40'	3.	07/28/20	PLANNING BOARD COMMENTS
DATE	2.	06/02/20	PER PEER REVIEW
02/14/20	1.	04/10/20	PER PEER REVIEW
SHEET	REV	DATE	REVISION
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FILE #			
2019-127-UT07			
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CHKD BY			
GSB			
APPD BY			
DNK			

**MARCUS PARTNERS**  
 176- 210 GROVE STREET  
 FRANKLIN, MA

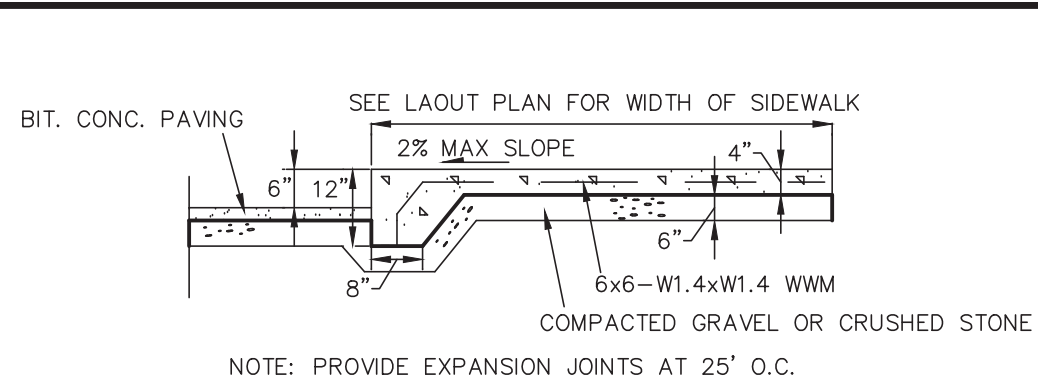
**UTILITY PLAN**

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 civil engineering consultants  
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 Phone: 781-843-4333 www.kellyengineeringgroup.com

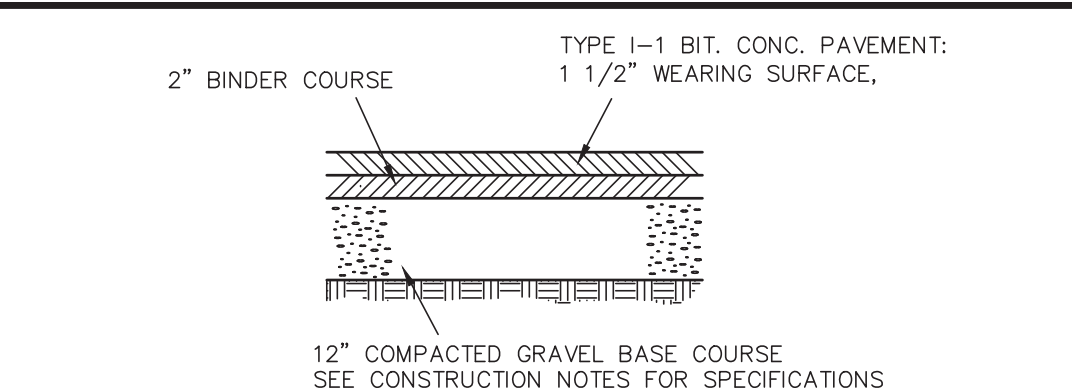
SHEET NO. **7**



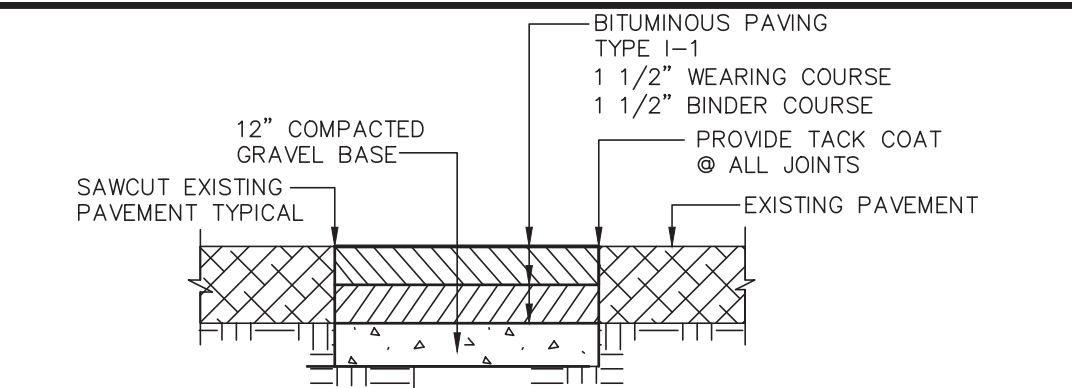
**VERTICAL CONCRETE CURB DETAIL**  
NOT TO SCALE  
KELLY ENGINEERING GROUP, INC.



**INTEGRAL SIDEWALK/ CURB DETAIL**  
NOT TO SCALE  
KELLY ENGINEERING GROUP, INC.



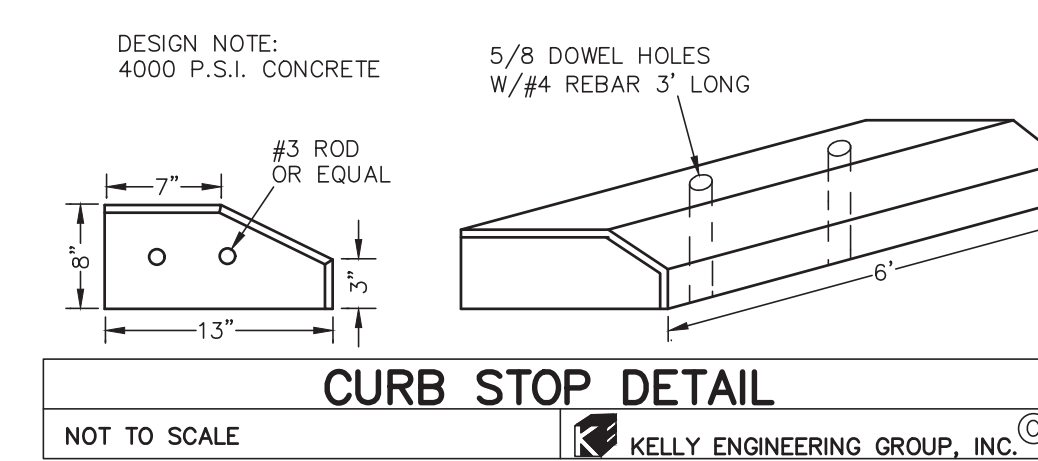
**BITUMINOUS CONCRETE PAVEMENT (HEAVY DUTY)**  
NOT TO SCALE  
KELLY ENGINEERING GROUP, INC.



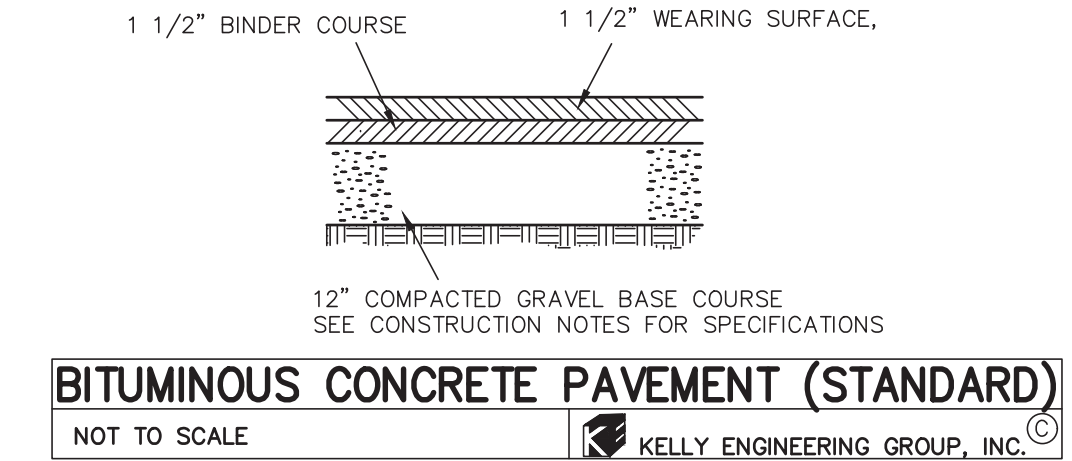
**PAVEMENT MATCH/ SAW-CUT DETAIL**  
NOT TO SCALE  
KELLY ENGINEERING GROUP, INC.

**CONSTRUCTION NOTES**

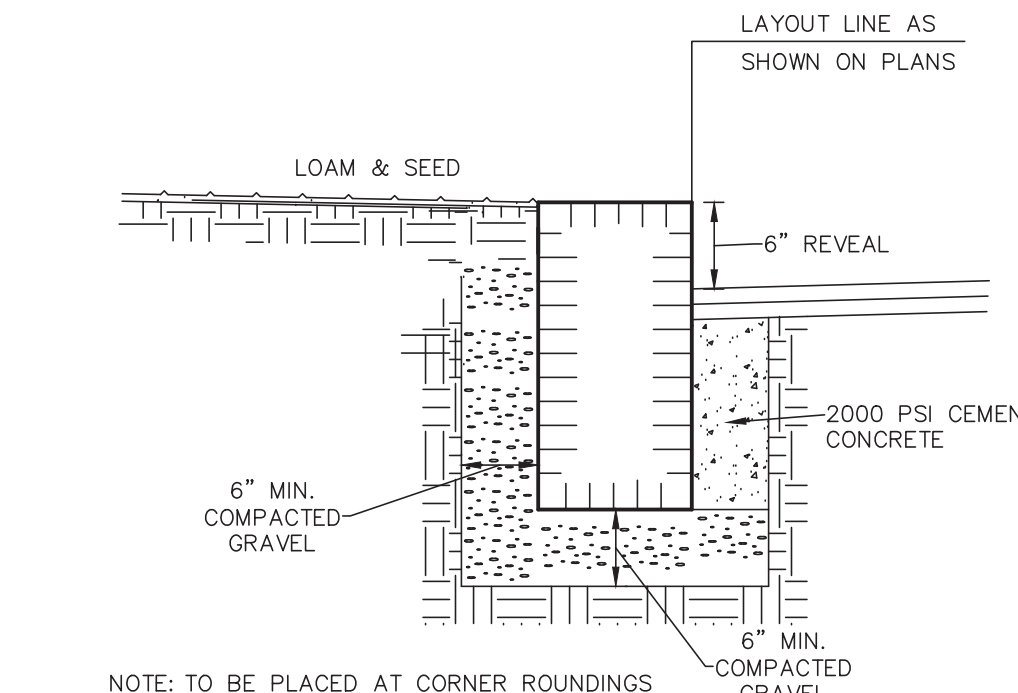
- A1. THE CONTRACTOR SHALL REPORT TO THE OWNER AND ENGINEER OF ANY SIGNIFICANT VARIATIONS IN EXISTING SITE CONDITIONS FROM THOSE SHOWN ON THESE PLANS. ANY PROPOSED REVISIONS TO THE WORK, IF REQUIRED BY THESE SITE CONDITIONS, SHALL NOT BE UNDERTAKEN UNTIL REVIEWED AND APPROVED BY THE OWNER AND THE ENGINEER.
- A2. THE CONTRACTOR SHALL NOTIFY THE TOWN OF FRANKLIN DEPARTMENT OF PUBLIC WORKS AT LEAST 48 HOURS IN ADVANCE OF ANY REQUIRED INSPECTIONS.
- A3. IN ORDER TO PROTECT THE PUBLIC SAFETY DURING CONSTRUCTION, THE CONTRACTOR IS RESPONSIBLE FOR INSTALLING AND MAINTAINING AT ALL TIMES ALL NECESSARY SAFETY DEVICES AND PERSONNEL, WARNING LIGHTS, BARRICADES, AND POLICE OFFICERS.
- A4. ALL WORK SHALL CONFORM TO A SITE PLAN PERMIT TO BE ISSUED BY THE TOWN OF FRANKLIN.
- A5. FOR ANY PROJECT THAT INVOLVES 1 ACRE OR MORE OF DISTURBANCE, THE CONTRACTOR SHALL SECURE A NPDES PERMIT PRIOR TO BEGINNING ANY GRADING ACTIVITIES.
- A6. ALL WORK SHALL CONFORM TO AN ORDER OF CONDITIONS TO BE ISSUED BY THE TOWN OF FRANKLIN.
- A7. ALL WORK SHALL CONFORM TO THE GEOTECHNICAL REPORT BY MCARDLE & GANNON.
- A8. THE LOCATION OF UNDERGROUND UTILITIES AS REPRESENTED ON THESE PLANS IS BASED UPON PLANS AND INFORMATION PROVIDED BY THE RESPECTIVE UTILITY COMPANIES OR MUNICIPAL DEPARTMENTS SUPPLEMENTED BY FIELD IDENTIFICATION WHEREVER POSSIBLE. NO WARRANTY IS MADE AS TO THE ACCURACY OF THESE LOCATIONS OR THAT ALL UNDERGROUND UTILITIES ARE SHOWN. THE CONTRACTOR SHALL CONDUCT A UTILITY SURVEY AT LEAST 72 HOURS PRIOR TO THE START OF CONSTRUCTION. DIG SAFE TELEPHONE NUMBER IS 1-888-344-7233.
- A9. THE CONTRACTOR SHALL VERIFY THE LOCATION, SIZE AND DEPTH OF EXISTING UTILITIES PRIOR TO TAPPING INTO, CROSSING OR EXTENDING THEM. IF THE NEW WORK POSES A CONFLICT WITH EXISTING UTILITIES, THE ENGINEER SHALL BE NOTIFIED PRIOR TO THE CONTRACTOR CONTINUING.
- A10. REFER TO ARCHITECTURAL PLANS FOR EXACT BUILDING DIMENSION AND DOOR LOCATIONS.
- A11. BENCHMARK ELEVATION IS 249.44 LOCATED AT BONNET BOLT ON HYDRANT. DATUM IS MVD.
- A12. ALL PROPOSED SITE GAS, ELECTRIC, TELEPHONE, CATV FEATURES SHOWN ON SITE DEVELOPMENT PLANS ARE INTENDED AS A GUIDE ONLY. FINAL CONFIGURATION TO BE CONFIRMED WITH PROJECT MEP ENGINEER AND UTILITY PROVIDER.
- B1. REFER TO PLUMBING PLANS FOR EXACT SIZE AND LOCATION OF SANITARY AND WATER CONNECTIONS.
- B2. REFER TO ELECTRICAL PLANS FOR THE LIGHTING CIRCUITS, FIXTURE DETAIL AND BUILDING CONNECTION LOCATION.
- B3. ALL H.D.P.E. HIGH DENSITY POLYETHYLENE PIPE SHALL BE ADS N-12 OR APPROVED EQUAL. SEWER SHALL BE SDR 35 WITH RUBBER RING JOINTS. WATER LINES SHALL BE CL 20 D.I.P. (DUCTILE IRON PIPE). REINFORCED CONCRETE PIPE RCP SHALL BE CLASS III OR CLASS V WHEN COVER IS LESS THAN 42\"/>
- B4. NO LEDGE, BOLDERS, OR OTHER UNYIELDING MATERIALS ARE TO BE LEFT WITHIN 6\"/>
- C1. WALKS SHALL BE 4\"/>
- C2. BASE MATERIAL SHALL BE CLEAN BANK RUN GRAVEL, CONFORMING TO M.D.P.W. M1.03.1, WITH NO STONES LARGER THAN THREE (3) INCHES IN DIAMETER AND SHALL BE PLACED AND ROLLED WITH AT LEAST A TEN TON ROLLER. THE SURFACES SHALL BE WET DURING ROLLING TO BIND THE MATERIAL. ALL STONES OF 4\"/>
- D1. ALL AREAS TO BE PLANTED WITH GRASS SHALL BE TREATED WITH 100 POUNDS OF GROUND LIMESTONE PER 1,000 S.F. OF AREA PLANTED. ALL AREAS TO BE PLANTED WITH GRASS SHALL BE FERTILIZED WITH 10-10-10 AT THE RATE OF 1,000 POUNDS PER ACRE OR AS REQUIRED BY SOIL TEST. 40% OF THE NITROGEN SHALL BE ORGANIC FORM.
- D2. ALL LANDSCAPED AREAS TO BE LOAMED AND SEEDED SHALL HAVE THE FOLLOWING MIX:  
PERENNIAL RYE 25%  
KENTUCKY BLUEGRASS 25%  
GREENING RED FESCUE OR PENNLAWN FESCUE 50%  
SEED AT THE RATE OF 5#/1,000 S.F.
- D3. ALL DISTURBED AREAS TO BE LOAMED AND SEEDED SHALL HAVE A MINIMUM OF 4 INCHES OF TOPSOIL SPREAD EVENLY THROUGHOUT. PROVIDE EROSION CONTROL MEASURES AS NECESSARY TO PROVIDE SLOPE STABILITY UNTIL VEGETATION IS ESTABLISHED. (NOTE: IF THERE IS A CONFLICT BETWEEN THESE PLANS AND LANDSCAPE PLANS THE LANDSCAPE PLANS SHALL DICTATE.)
- E1. THE CONTRACTOR SHALL REGULARLY INSPECT THE PERIMETER OF THE PROPERTY TO CLEANUP AND REMOVE LOOSE CONSTRUCTION DEBRIS BEFORE IT LEAVES THE SITE. ALL DEMOLITION DEBRIS SHALL BE PROMPTLY REMOVED FROM THE SITE TO A LEGAL DUMP SITE. ALL TRUCKS LEAVING THE SITE SHALL BE COVERED.
- E2. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO INSTITUTE EROSION CONTROL MEASURES ON AN AS NECESSARY BASIS, SUCH THAT EXCESSIVE SOIL EROSION DOES NOT OCCUR. MEASURES SHALL INCLUDE SILT SACKS IN DRAINAGE INLETS, MULCHING AND PLANTING OF DISTURBED AREAS.
- E3. PRIOR TO THE COMMENCEMENT OF ANY OTHER WORK A SILT SACK SHALL BE INSTALLED IN EACH EXISTING DRAINAGE INLET.
- E4. AFTER INSTALLATION OF EACH DRAINAGE INLET A SILT SACK SHALL BE INSTALLED IN EACH INLET TO PREVENT SEDIMENT FROM ENTERING THE STORM DRAIN SYSTEM.
- E5. AT THE END OF CONSTRUCTION ALL DRAINAGE STRUCTURES ARE TO BE CLEANED OF SILT, STONES AND OTHER DEBRIS.
- E6. DURING CONSTRUCTION THE EROSION CONTROL MEASURES SHALL BE INSPECTED ONCE PER WEEK AND WITHIN 24 HOURS OF ANY STORM EVENT GENERATING MORE THAN 1/2\"/>
- E7. STABILIZATION MEASURES (SEEDING OR PLANTING, APPLYING MULCH OR OTHER NON-VEGETATIVE PRODUCT) OF EXPOSED SOILS SHALL BEGAIN AS SOON AS PRACTICABLE AND IMMEDIATELY AFTER EARTH-DISTURBING ACTIVITIES HAVE PERMANENTLY OR TEMPORARILY CEASED. STABILIZATION TO BE COMPLETED WITHIN 14 DAYS.
- E8. SILT SOCKS SHALL BE INSTALLED ON THE DOWNSTREAM SIDE OF ALL STOCK PILES.
- E9. SPARE EROSION/SEDIMENT CONTROL MATERIALS SHALL BE AVAILABLE ON SITE FOR USE IN CONTINGENCY CONDITIONS OR AT THE DIRECTION OF FRANKLIN CODE ENFORCEMENT PERSONNEL.



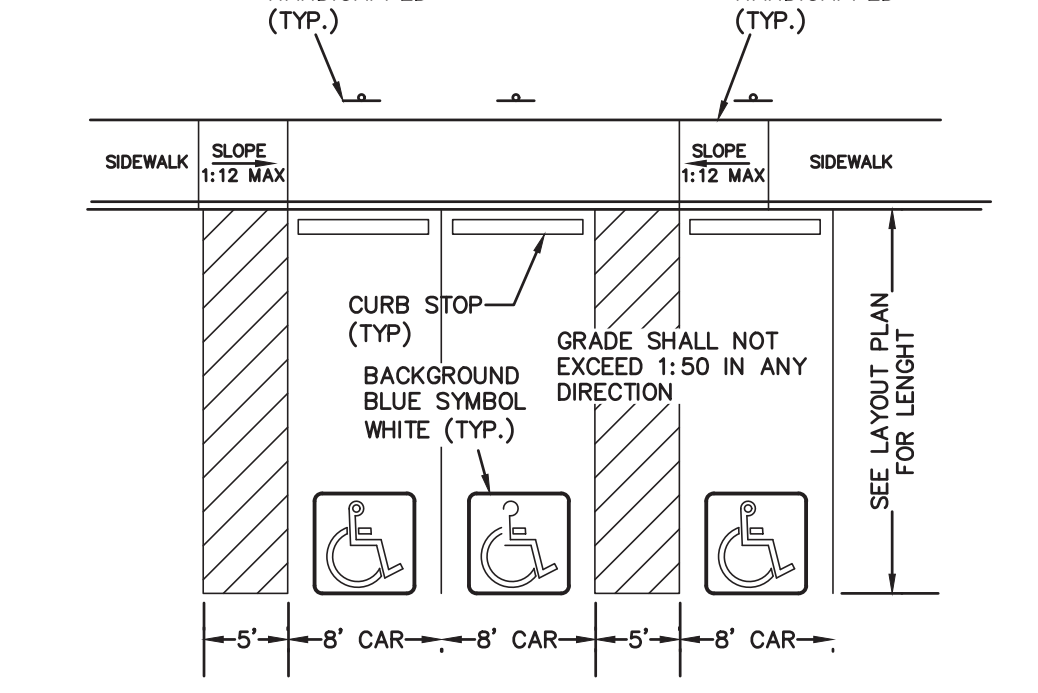
**CURB STOP DETAIL**  
NOT TO SCALE  
KELLY ENGINEERING GROUP, INC.



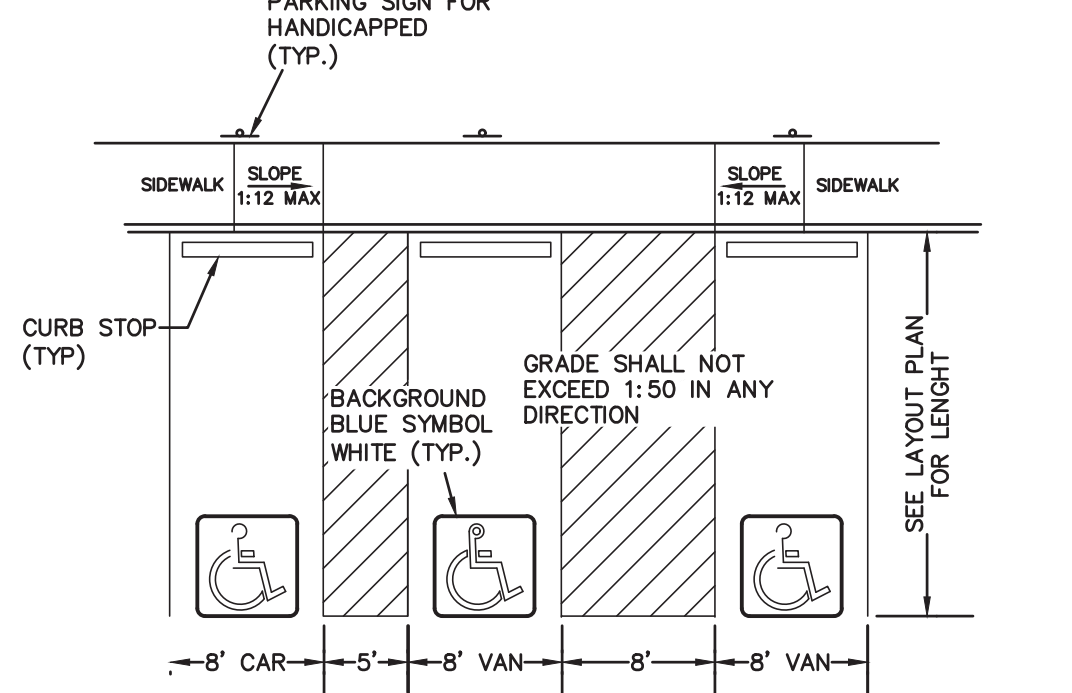
**BITUMINOUS CONCRETE PAVEMENT (STANDARD)**  
NOT TO SCALE  
KELLY ENGINEERING GROUP, INC.



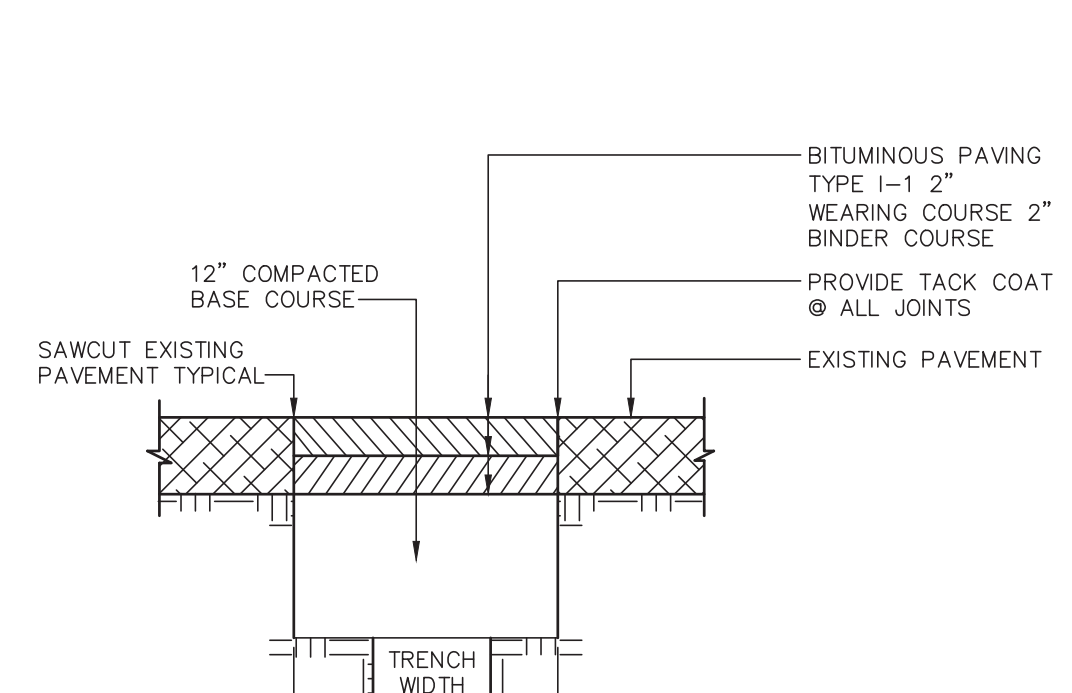
**VERTICAL GRANITE CURB DETAIL**  
NOT TO SCALE  
KELLY ENGINEERING GROUP, INC.



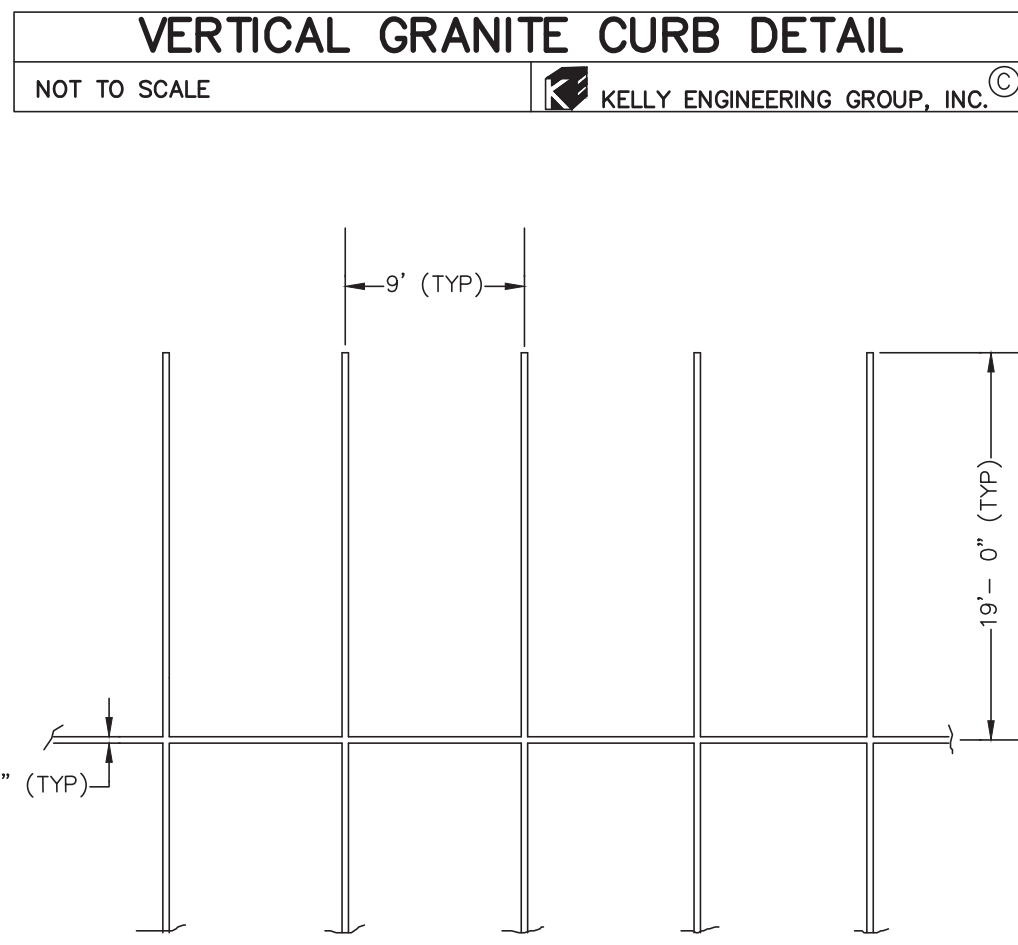
**HANDICAP PARKING DETAIL**  
NOT TO SCALE  
KELLY ENGINEERING GROUP, INC.



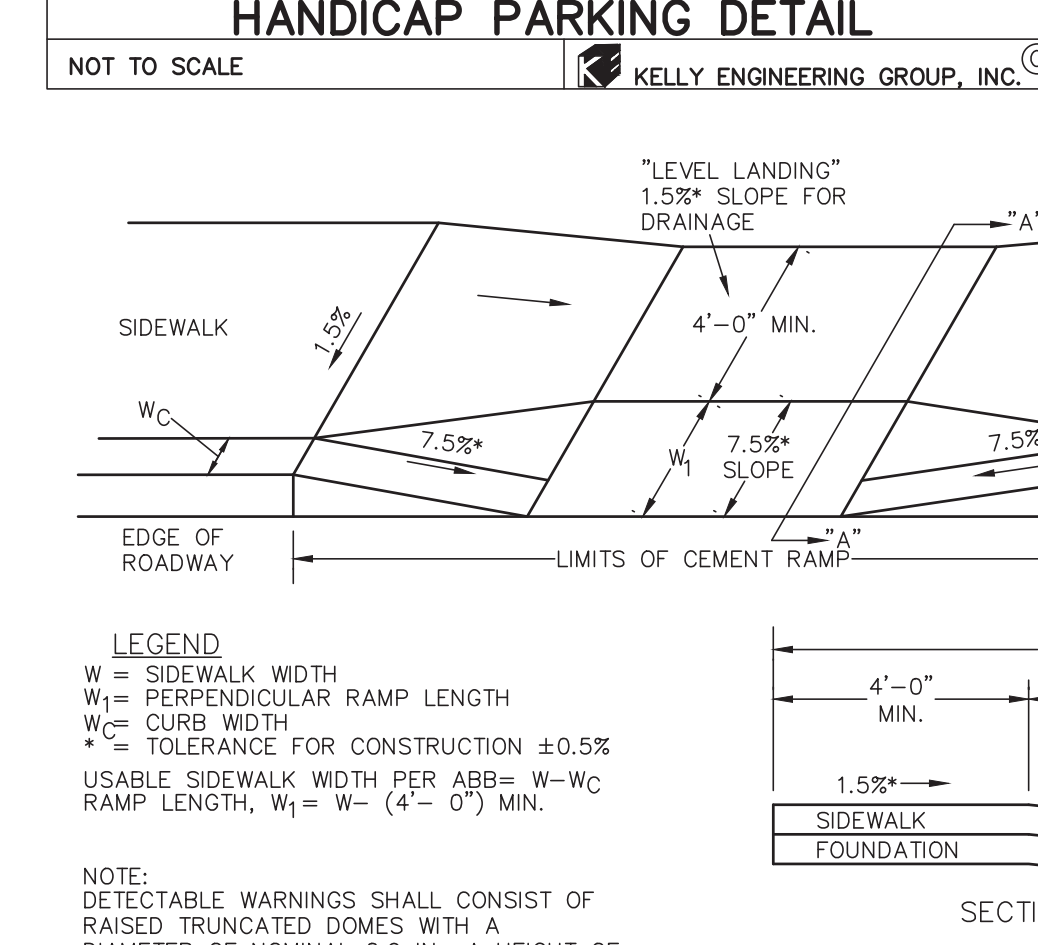
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KELLY ENGINEERING GROUP, INC.



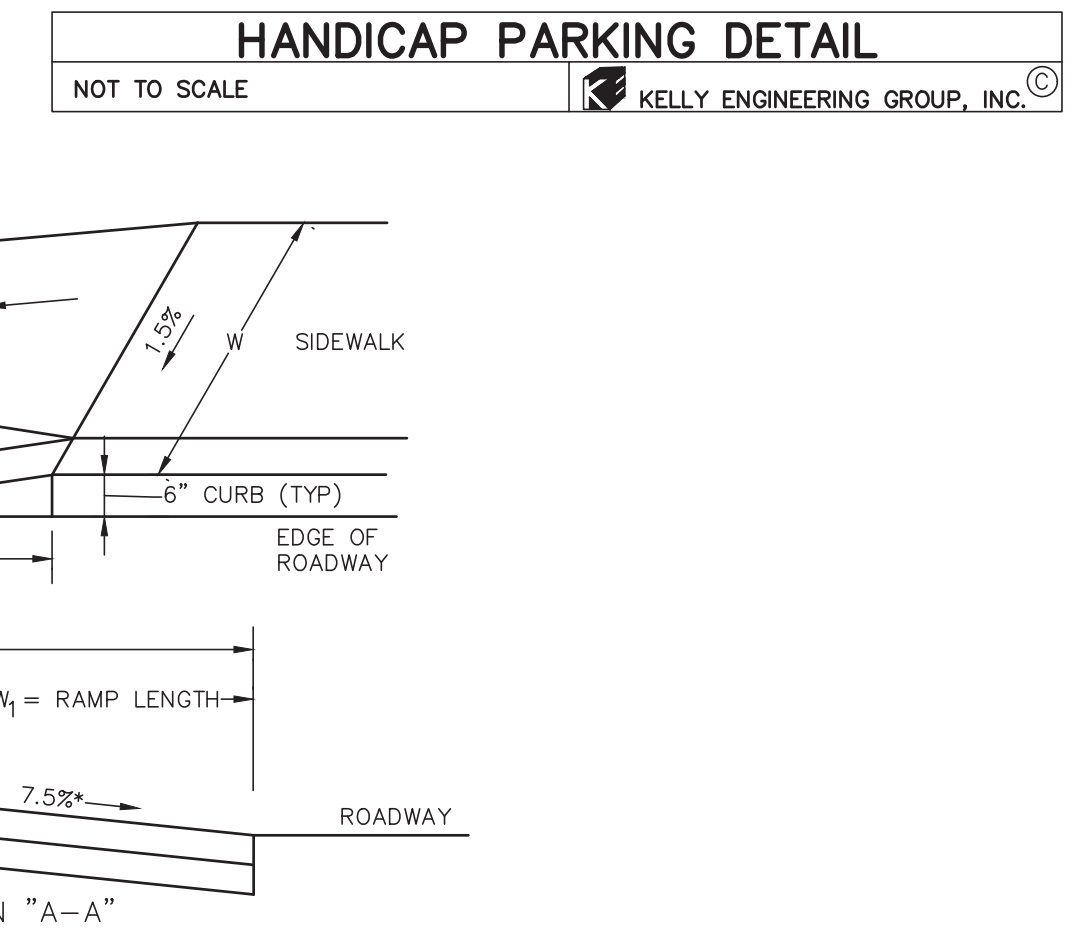
**TRENCH PATCHING DETAIL**  
NOT TO SCALE  
KELLY ENGINEERING GROUP, INC.



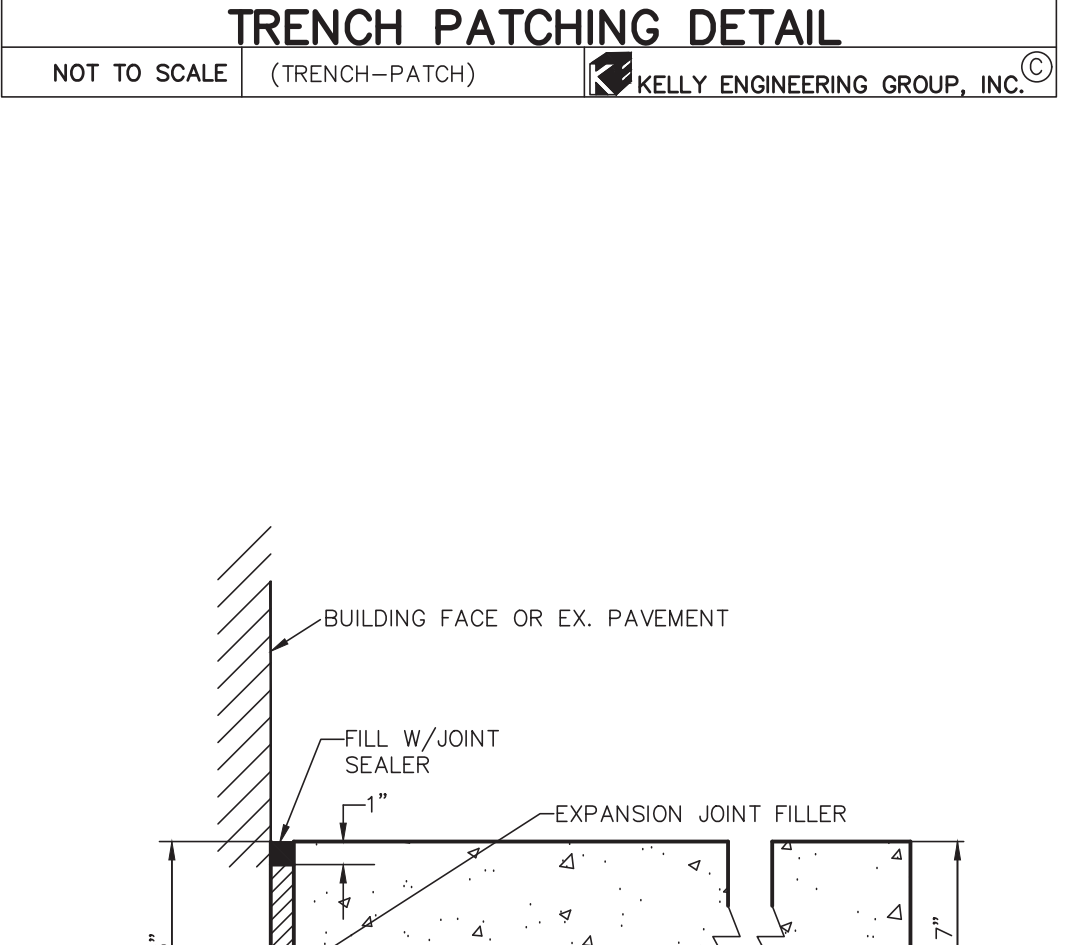
**TYPICAL STRIPING DETAIL**  
NOT TO SCALE  
KELLY ENGINEERING GROUP, INC.



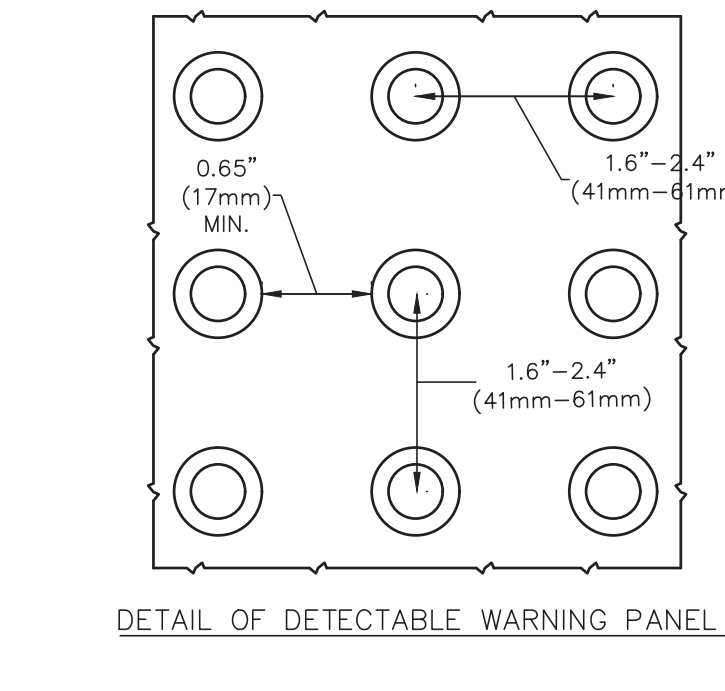
**WHEELCHAIR RAMPS**  
NOT TO SCALE  
KELLY ENGINEERING GROUP, INC.



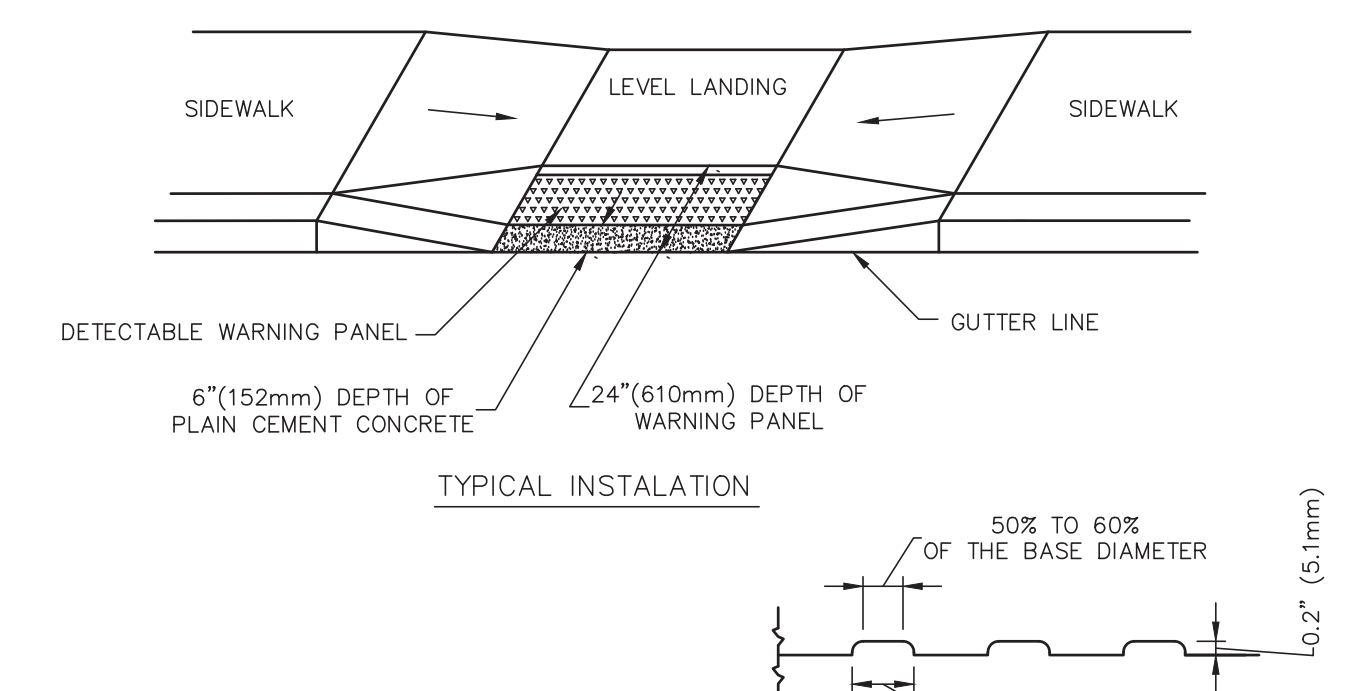
**CONCRETE PAD DETAIL**  
NOT TO SCALE  
KELLY ENGINEERING GROUP, INC.



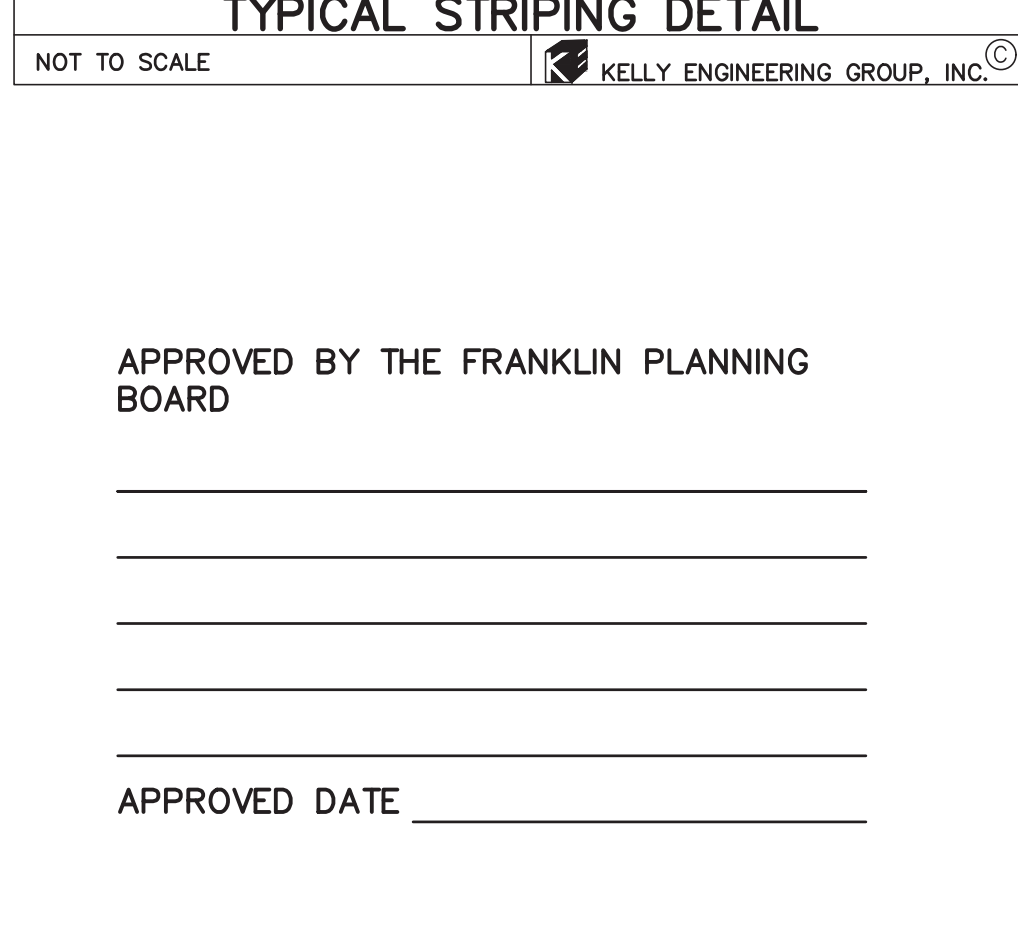
**DETECTABLE WARNING PANEL FOR WHEELCHAIR RAMPS**  
NOT TO SCALE  
KELLY ENGINEERING GROUP, INC.



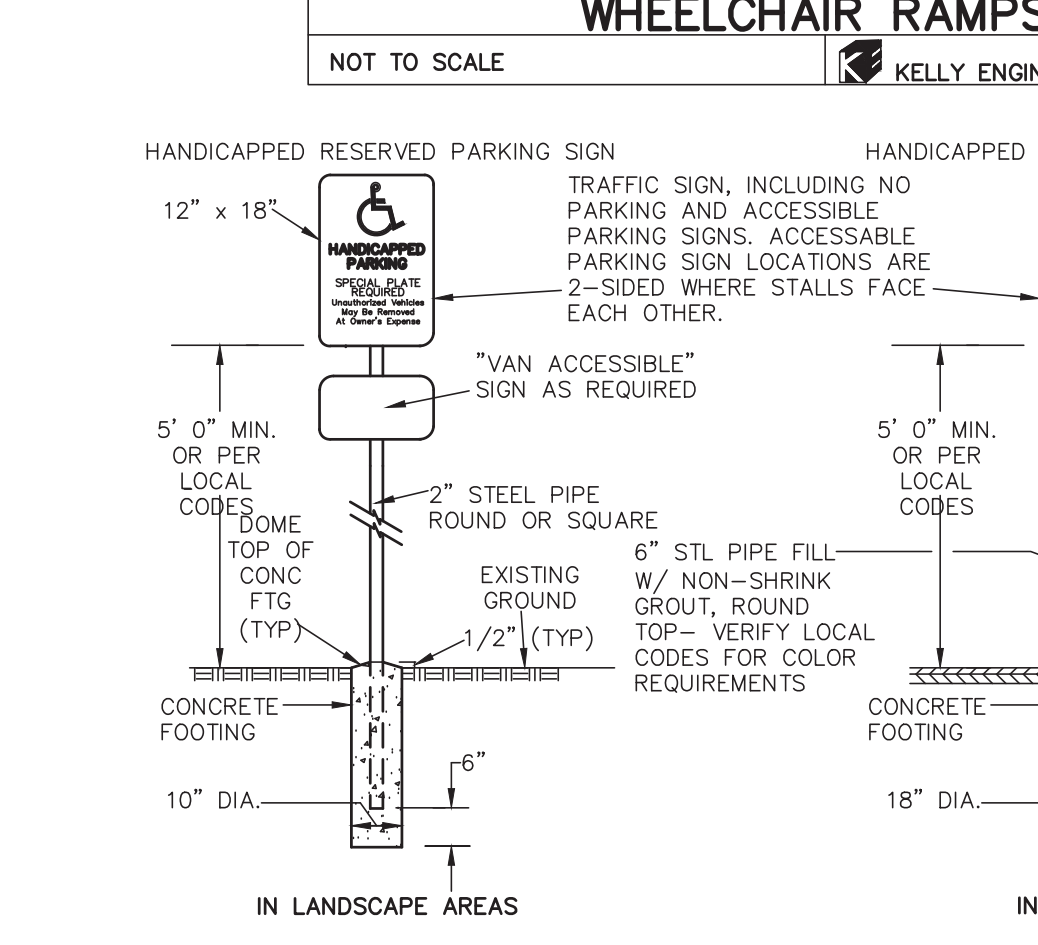
**DETAIL OF DETECTABLE WARNING PANEL**



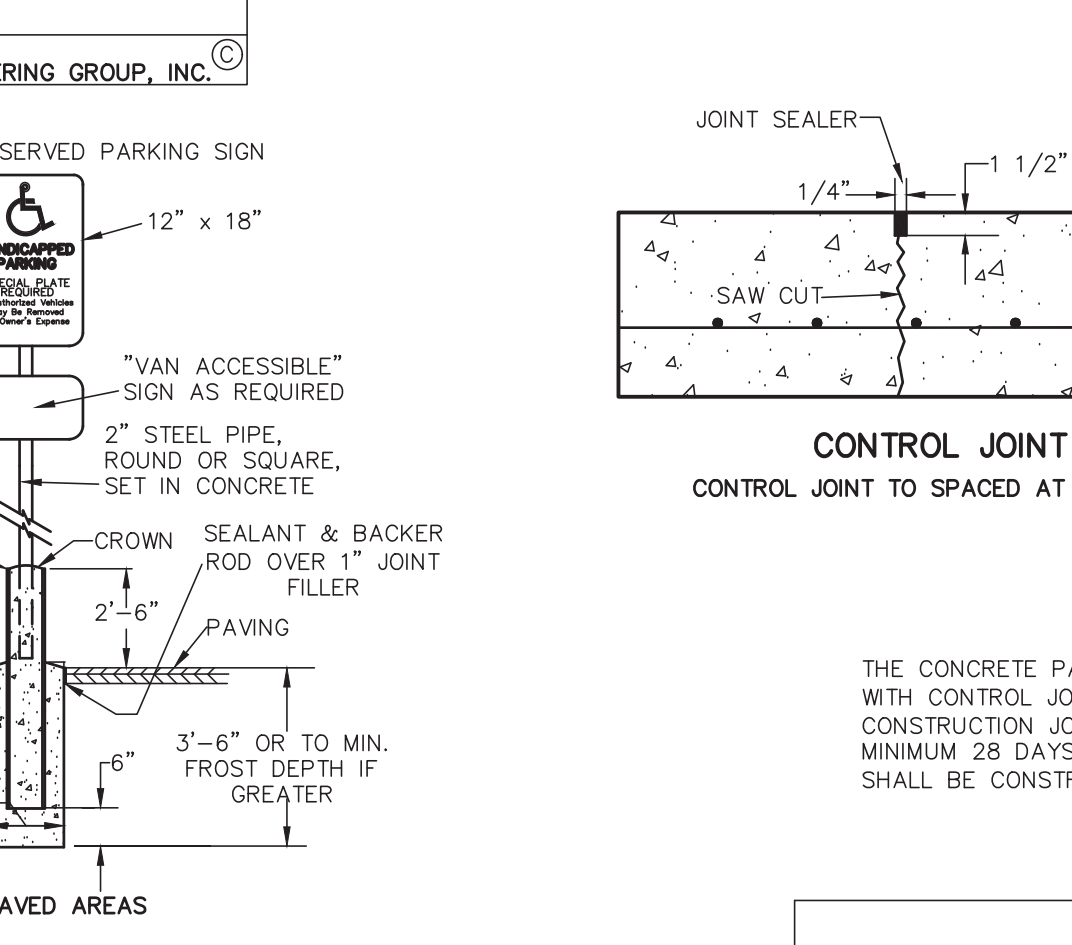
**TYPICAL INSTALLATION**



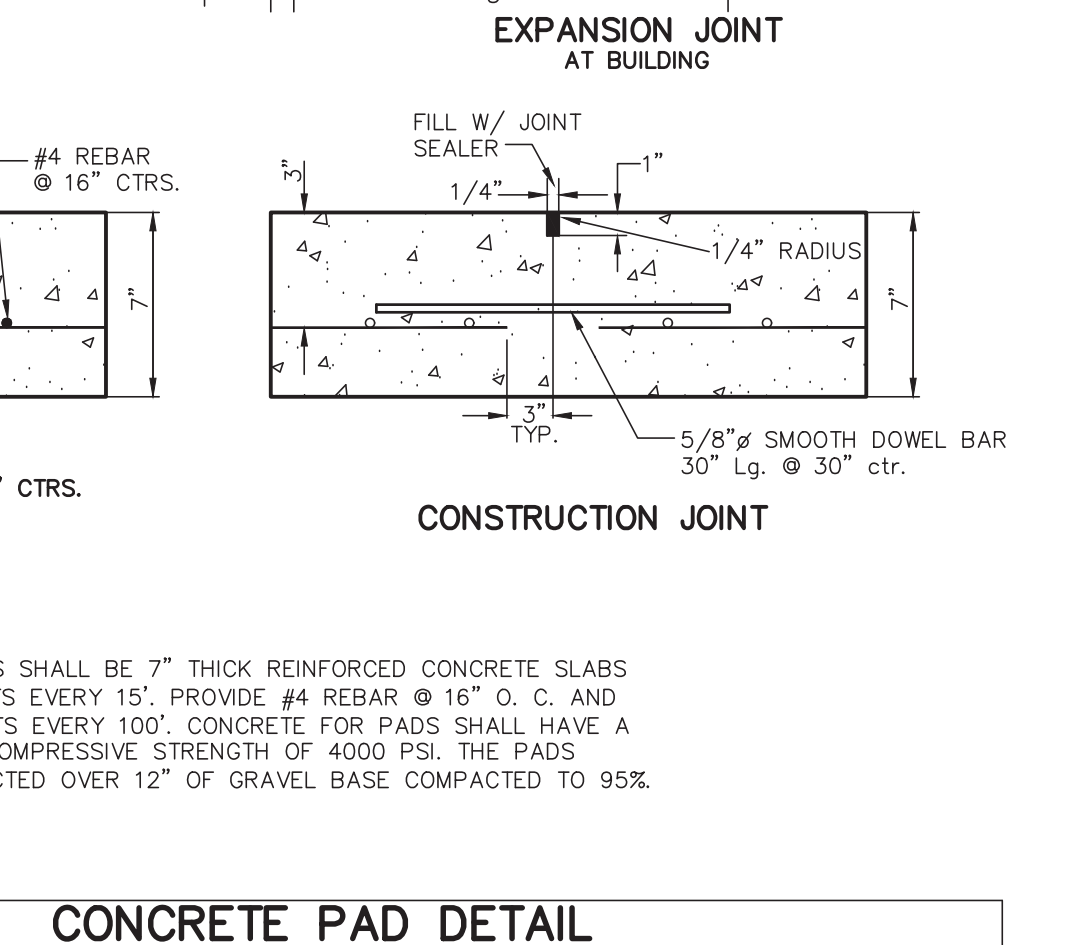
**HANDICAP SIGN DETAIL**  
NOT TO SCALE  
KELLY ENGINEERING GROUP, INC.



**CONTROL JOINT**  
**CONSTRUCTION JOINT**



**HANDICAP SIGN DETAIL**  
NOT TO SCALE  
KELLY ENGINEERING GROUP, INC.



**CONCRETE PAD DETAIL**  
NOT TO SCALE  
KELLY ENGINEERING GROUP, INC.

SCALE	DATE	REVISION	DESCRIPTION
4.	10/01/20		PER TENANT COORDINATION
3.	07/28/20		PLANNING BOARD COMMENTS
2.	06/02/20		NO CHANGE
1.	04/10/20		PER PEER REVIEW
02/14/20	REV. DATE		REVISION

**MARCUS PARTNERS**  
176- 210 GROVE STREET  
FRANKLIN, MA

**DETAIL SHEET**

**JOB #**  
F:\P\2019-127

**DRAWN BY**  
C/L

**CHKD BY**  
GSH

**APPD BY**  
DNK

DATE	REVISION	DESCRIPTION
7.	08/06/21	TENANT COMMENTS
6.	07/01/21	NO CHANGE
5.	11/16/20	NO CHANGE

**DAVID NOEL KELLY CIVIL ENGINEER**  
REGISTERED PROFESSIONAL ENGINEER

MASSACHUSETTS REG. NO. 37842

Digitally signed by David Noel Kelly  
DN: cn=David Noel Kelly, o=Kelly Engineering Group, Inc., email=dnk@kellyeng.com, c=US, serial=3012836, dnQualifier=0

**SHEET NO. 8**

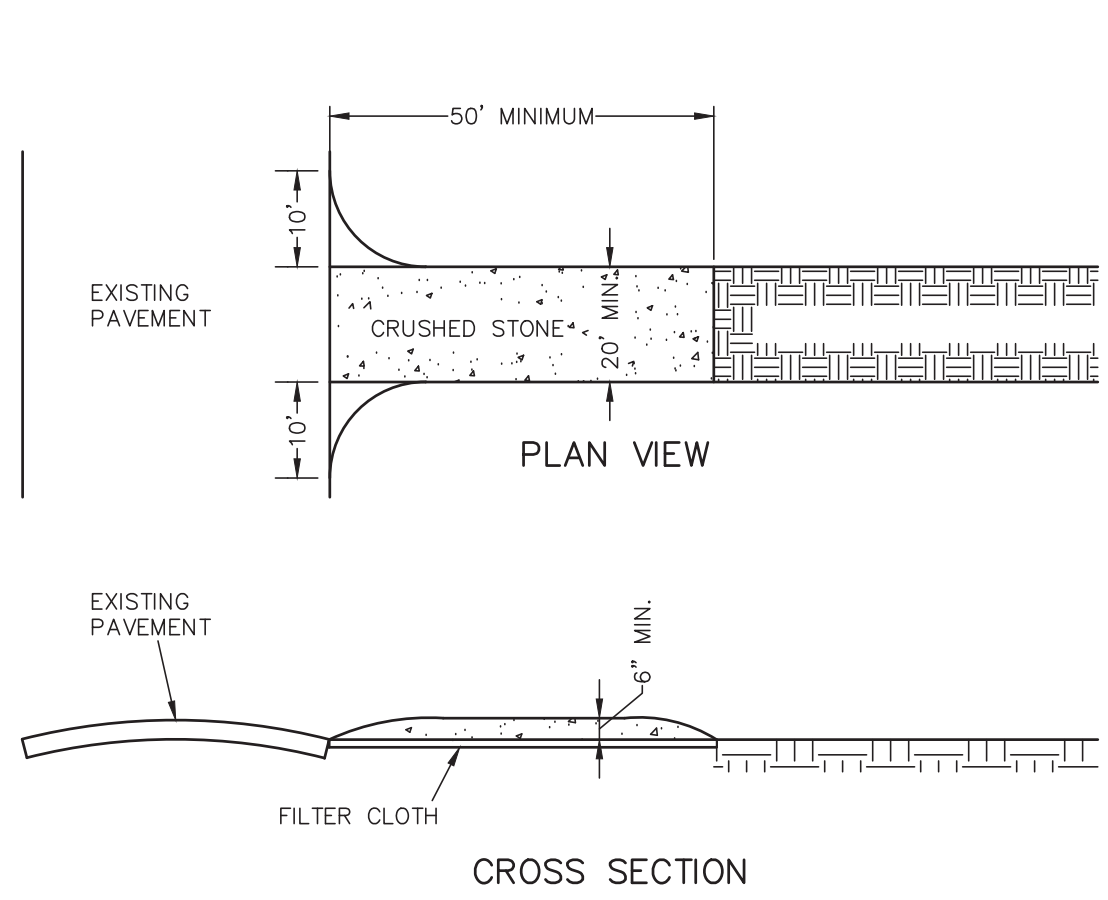
KELLY ENGINEERING GROUP SHALL NOT BE RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, OR PROCEDURES UTILIZED BY THE CONTRACTOR, NOR FOR THE SAFETY OF PUBLIC OR CONTRACTOR'S EMPLOYEES OR FOR THE FAILURE OF THE CONTRACTOR TO CARRY OUT THE WORKING ACCORDANCE WITH THE CONTRACT DOCUMENTS.

THE EXTENT OF KELLY ENGINEERING GROUP'S LIABILITY FOR THIS PLAN IS LIMITED TO THE EXTENT OF ITS FEE LESS THIRD PARTY COST.

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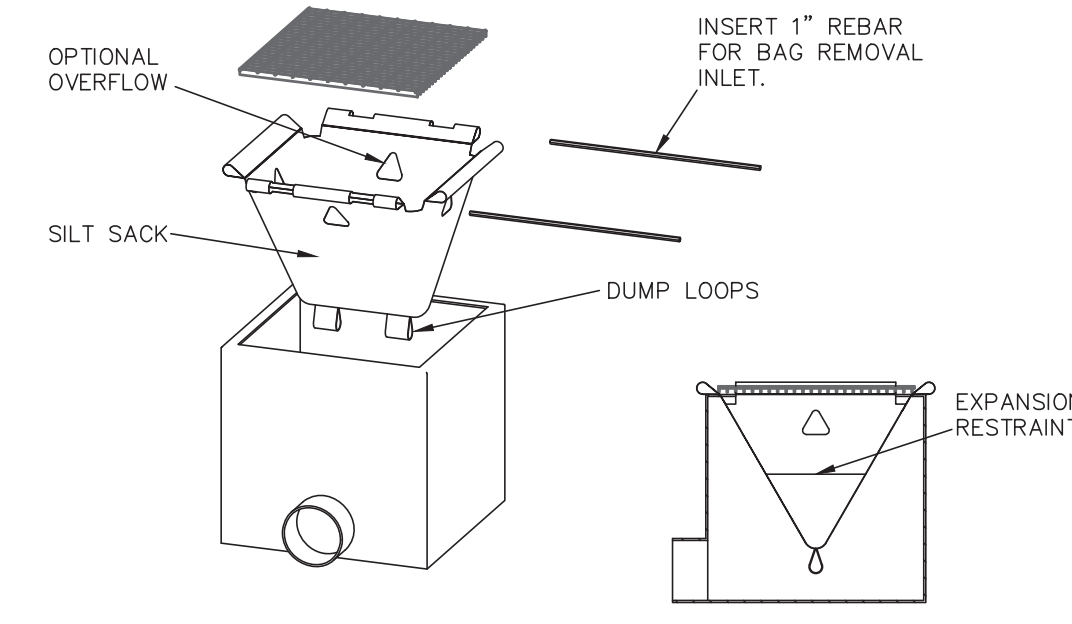




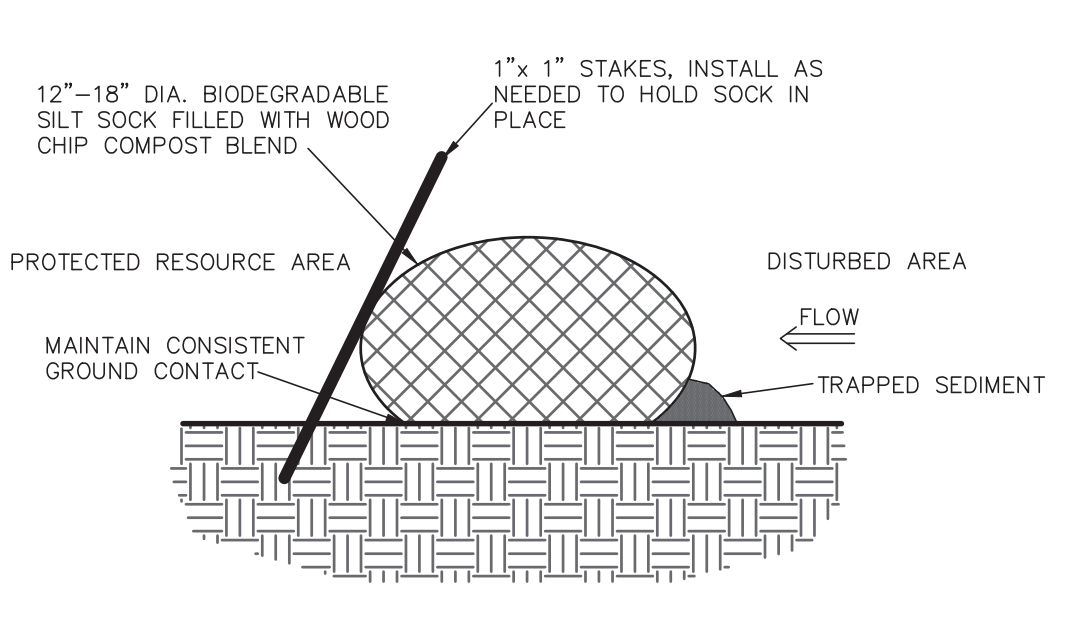
**TRACKING PAD NOTES:**

- STONE SIZE - USE 2" CRUSHED STONE
- FILTER CLOTH - SHALL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE.
- SURFACE WATER - ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHOULD BE PIPED ACROSS THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM SHOULD BE PERMITTED.
- MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH PREVENTS TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR OR CLEANING OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.

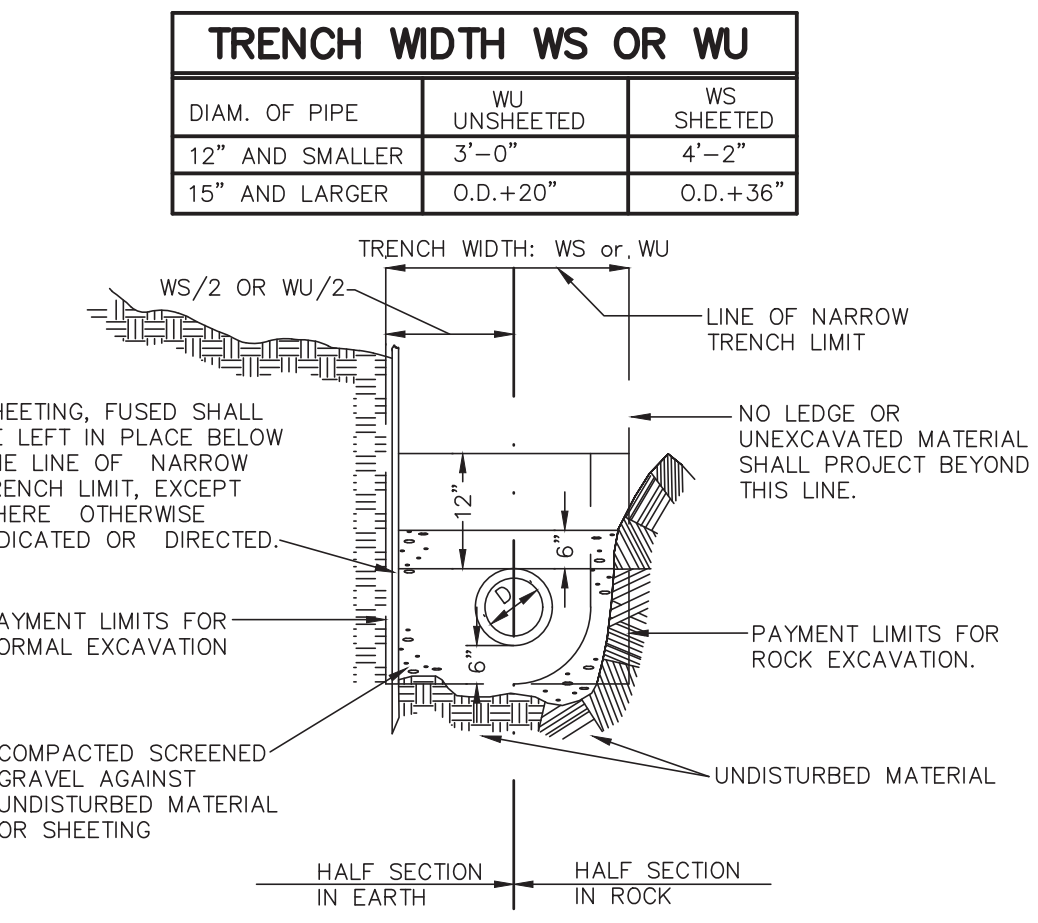
**CONSTRUCTION TRACKING PAD**  
NOT TO SCALE  
KELLY ENGINEERING GROUP, INC.



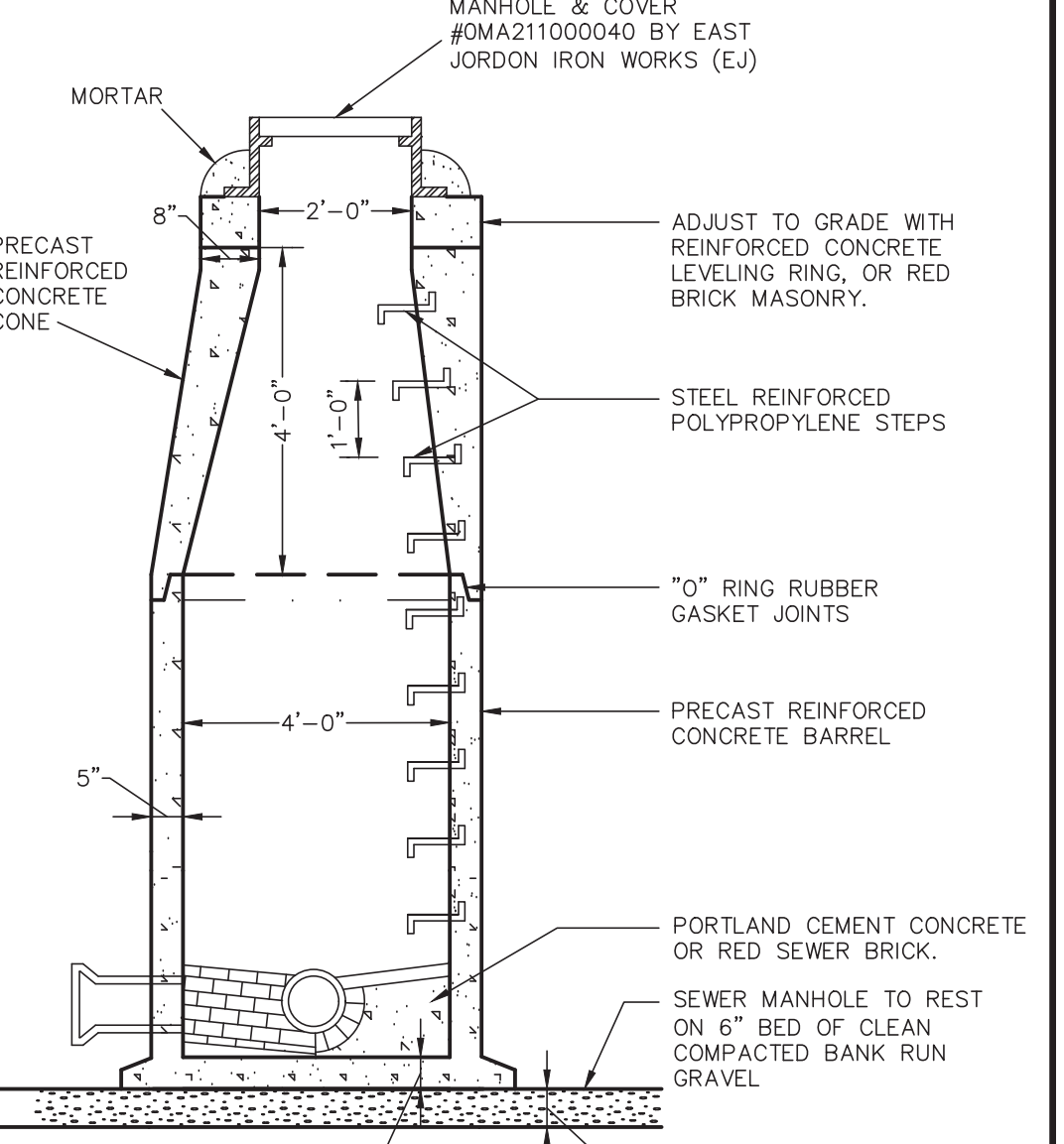
**SILT SACK- TYPE A DETAIL**  
NOT TO SCALE  
KELLY ENGINEERING GROUP, INC.



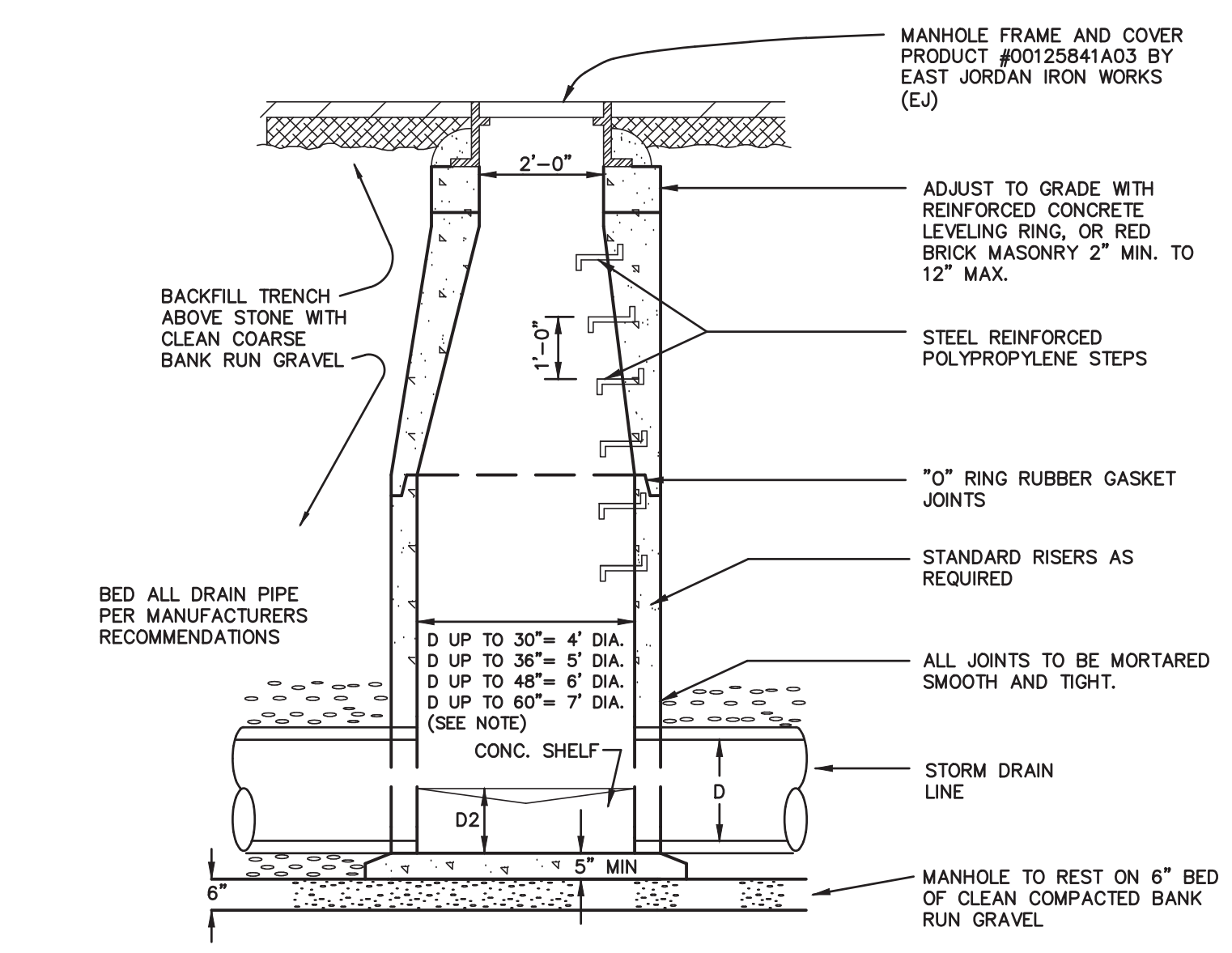
**SILT SOCK LINE DETAIL**  
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KELLY ENGINEERING GROUP, INC.



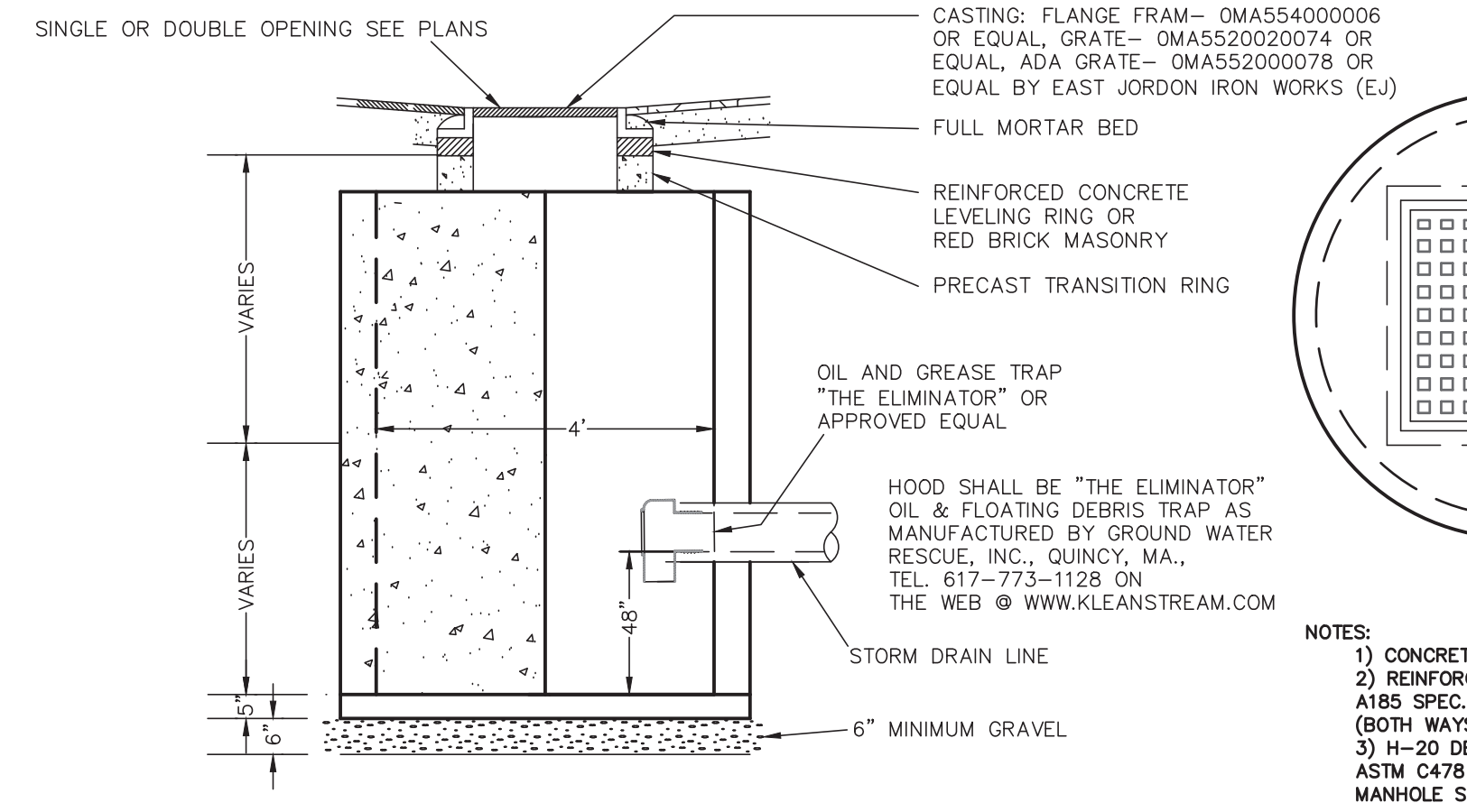
**WATER AND SEWER TRENCH SECTION**  
NOT TO SCALE  
KELLY ENGINEERING GROUP, INC.



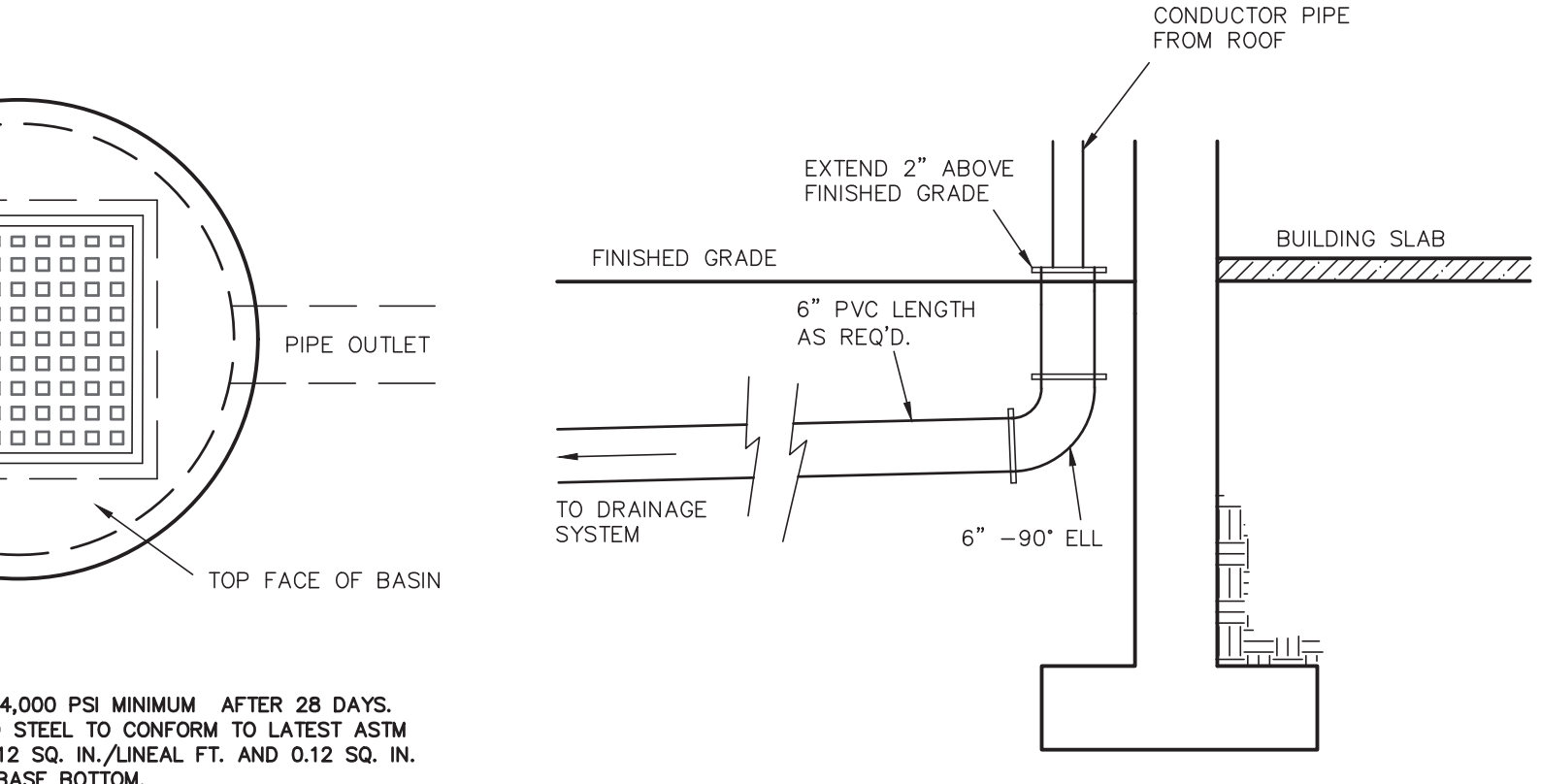
**SEWER MANHOLE DETAIL**  
NOT TO SCALE  
KELLY ENGINEERING GROUP, INC.



**PRECAST DRAIN MANHOLE DETAIL**  
NOT TO SCALE  
KELLY ENGINEERING GROUP, INC.



**PRECAST CATCH BASIN DETAIL**  
NOT TO SCALE  
KELLY ENGINEERING GROUP, INC.



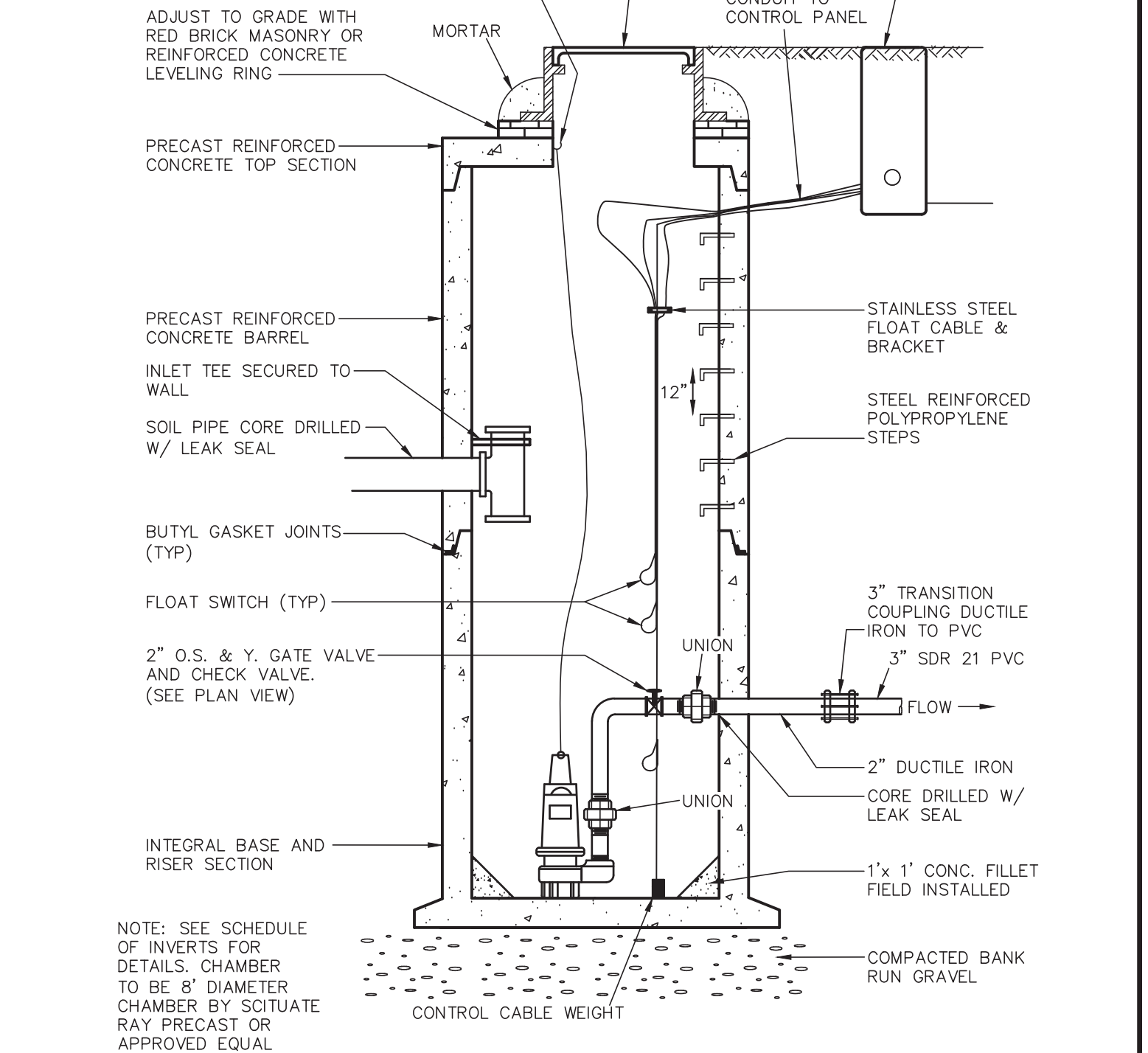
**ROOF DRAIN CONNECTION DETAIL**  
NOT TO SCALE  
KELLY ENGINEERING GROUP, INC.

**SANITARY PUMP STATION SCHEDULE OF INVERTS**

INSIDE BOTTOM OF PUMP STATION	243.8
PUMP OFF	244.8
LEAD PUMP ON	245.8
LAG PUMP ON	246.6
ALARM ON	246.1
INVERT FORCE MAIN	248.6
INVERT 6" IN (LOWEST)	248.8
INSIDE TOP OF PUMP STATION	252.0
RIM	258.0

**PUMP DESIGN:** USE 8" DIA PUMP CHAMBER (376 GALS./V.F.) BY SCITUATE RAY PRECAST OR EQUAL  
**DESIGN FLOW:** 150 EMPLOYEES @ 15 GPD/EMP = 2,250 GPD  
**DOSE VOLUME = 8 DOSES/DAY**  
 = 2,250 GPD  
 = 375 ± GAL/DOSE  
**PUMP CYCLE:** 375 GALS/ 376 GALS/V.F. = 1.0'  
**TOTAL STORAGE ABOVE WORKING LEVEL = 252.0 - 245.8 = 6.2' \* 376 GAL/FT = 2,331 GALLONS**  
**EQUIVALENT LENGTH OF PIPE = 370' + 30' (FITTINGS AND VALVES) = 400 FEET**  
**STATIC HEAD = 267.5-248.6 = 14.3**  
**FRICTIONAL HEAD = 20' @ 150 GPM**  
**TOTAL DYNAMIC HEAD = 34.3' @ 150 GPM**  
**\*USE GOULDS MODEL WS2003 OR EQUAL**  
**PUMP SHALL BE 200 VOLT, 3 PHASE**  
**MINIMUM OPERATION POINT @ 150 GPM WITH 34.3' TDH**  
**CYCLE TIME = 376 GAL/ 150GPM = 2.5 MIN**  
**SEE PLAN FOR CORRECT ORIENTATION OF INLET, OUTLET, & STEPS**  
**BUOYANCY CALCULATIONS TO BE PROVIDED BY SUPPLIER.**

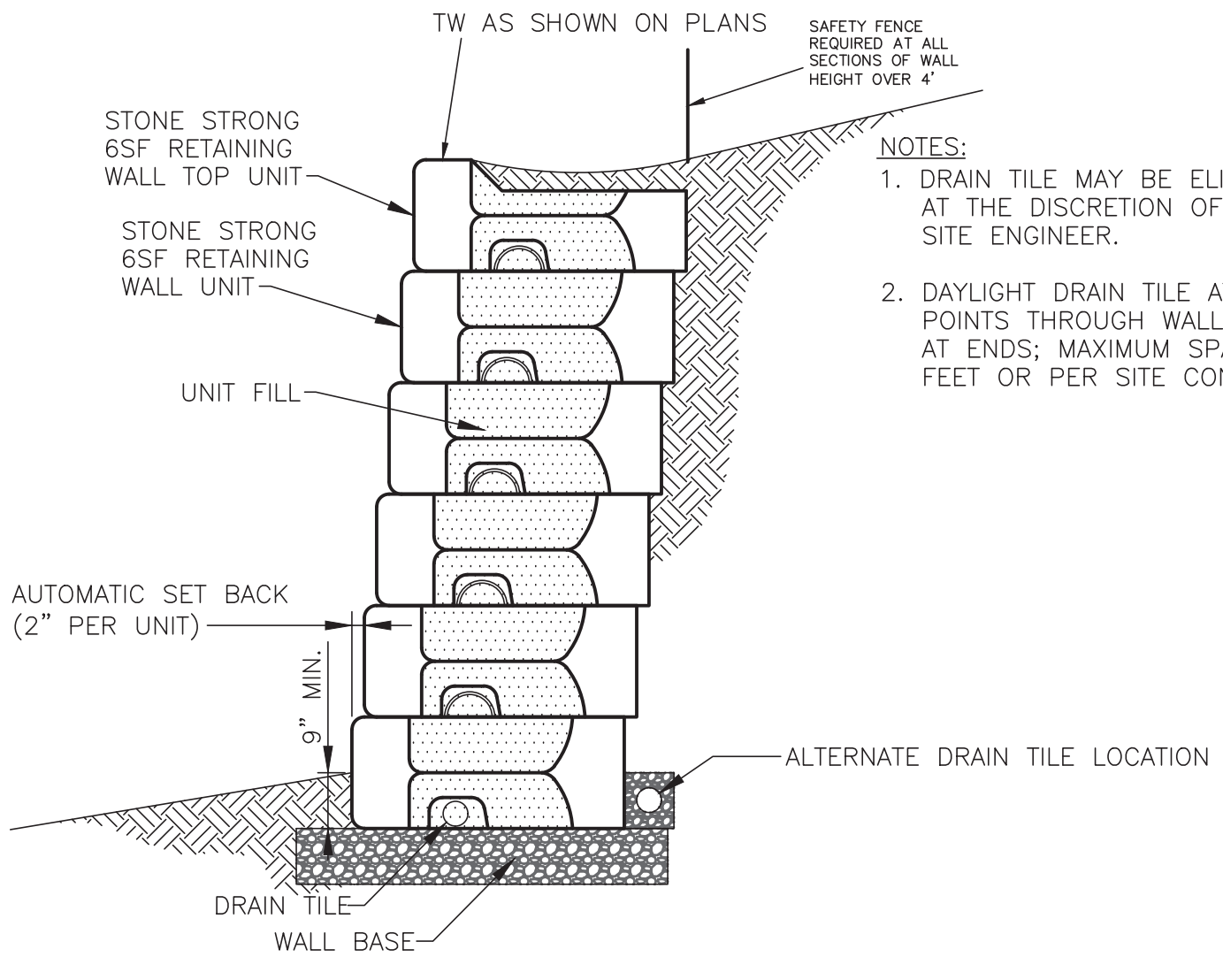
**DESIGN FLOW = 2,250 GPD (150 PEOPLE @ 15 GPD/ PERSON)**  
**\*USE GOULDS MODEL WS2003 OR EQUAL**  
**PUMP SHALL BE 200 VOLT, 3 PHASE**  
**MINIMUM OPERATION POINT @ 150 GPM WITH 34.3' TDH**  
**SEE UTILITY PLAN FOR CORRECT ORIENTATION OF INLET, OUTLET, & STEPS**



**EJECTOR STATION MANHOLE SECTION**  
NOT TO SCALE  
KELLY ENGINEERING GROUP, INC.

**SEWER PUMP STATION NOTES:**

- HATCH RAIL RISERS AND ELECTRICAL COMPONENTS SHALL BE DETAILED BY THE SUPPLIER. SUPPLIER SHALL PROVIDE SHOP DRAWINGS FOR APPROVAL.
- ALL TANKAGE AND HATCHES SHALL BE DESIGNED FOR H-20 LOADING AND DESIGNED TO ACCOMMODATE DIRECT TRAFFIC.
- BACK UP POWER SHALL BE PROVIDED IF REQUIRED BY OWNER. USE A KOHLER MODEL 30RZG EMERGENCY BACKUP GENERATOR. GAS POWERED OR APPROVED EQUIVALENT. GENERATOR SHALL SUPPLY BACKUP POWER. FINAL LOCATION OF GENERATOR TO BE DETERMINED BY ENGINEER.
- 10KV PAD MOUNT TRANSFORMER TO SUPPLY POWER TO SYSTEM OR AS DETERMINED BY UTILITY COMPANY.
- PROVIDE CONTROL CABINET AS FOLLOWS:  
 CABINET SHALL BE CSI 070405-3 CONTROL CABINET OR APPROVED EQUIVALENT. CABINET SHALL BE NEMA 4 STEEL EQUIPPED WITH 4 DOUBLE DOOR, 72 X 72 X 18 DIMENSIONS, 200 AMP METER SOCKET, MAIN DISCONNECT, 200 AMP LOAD CENTER, GFI OUTLET, LIGHT, ANTI-CONDENSATION HEATER, CELLULAR DIALER, AUTOMATIC TRANSFER SWITCH, MULTITRODE PUMP CONTROL PANEL, ICL MAX STREAM RADIO RECEIVER PANEL, LIGHTNING ARRESTOR. PANEL SHALL HAVE ELAPSED TIME METERS, MOISTURE AND TEMPERATURE SENSORS
- ALL PUMP STATION HARDWARE SHALL BE 304 STAINLESS STEEL.



**GRAVITY RETAINING WALL DETAIL**  
NOT TO SCALE  
KELLY ENGINEERING GROUP, INC.

APPROVED BY THE FRANKLIN PLANNING BOARD  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 APPROVED DATE \_\_\_\_\_

KELLY ENGINEERING GROUP SHALL NOT BE RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, OR PROCEDURES UTILIZED BY THE CONTRACTOR, NOR FOR THE SAFETY OF PUBLIC OR CONTRACTOR'S EMPLOYEES OR FOR THE FAILURE OF THE CONTRACTOR TO CARRY OUT THE WORKING ACCORDANCE WITH THE CONTRACT DOCUMENTS.  
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**GRAVITY RETAINING WALL DETAIL**  
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KELLY ENGINEERING GROUP, INC.

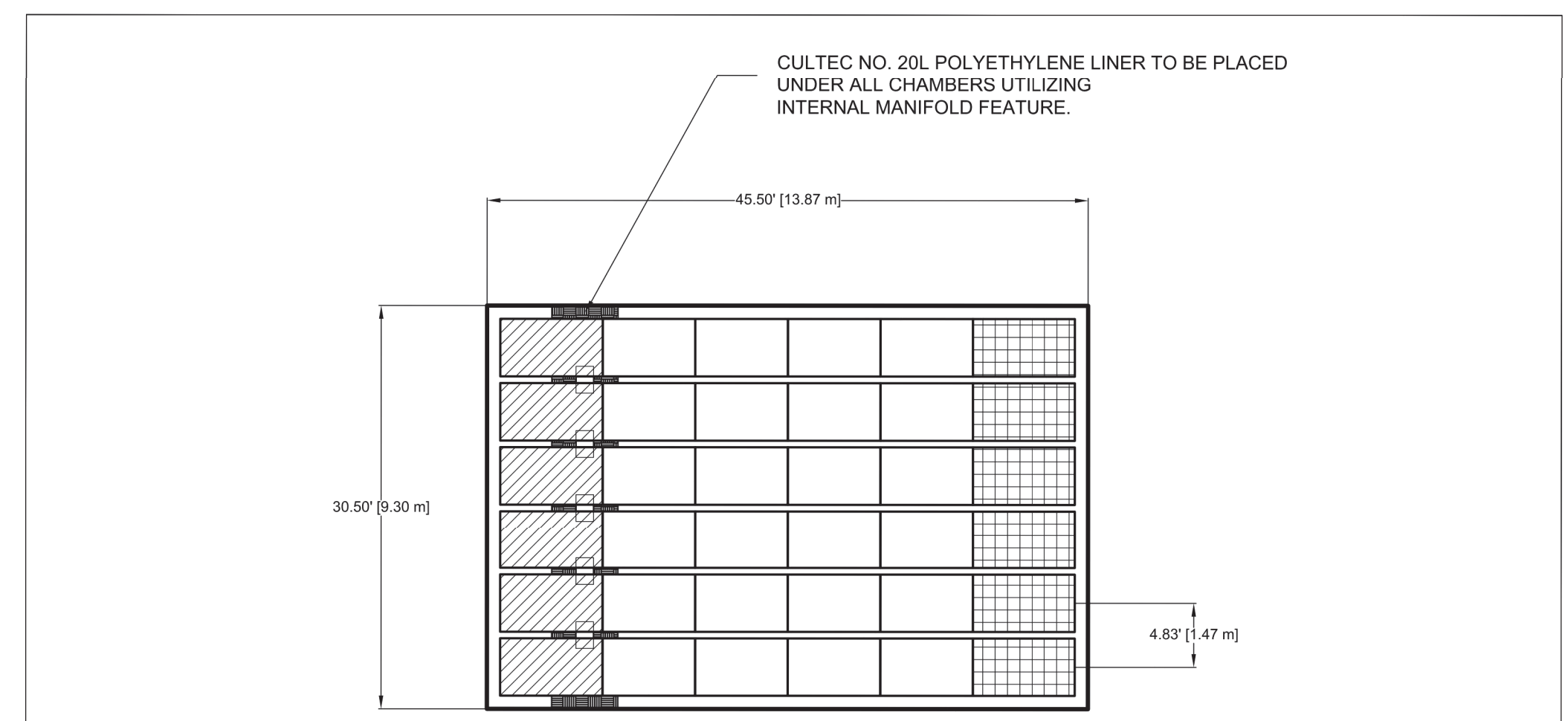
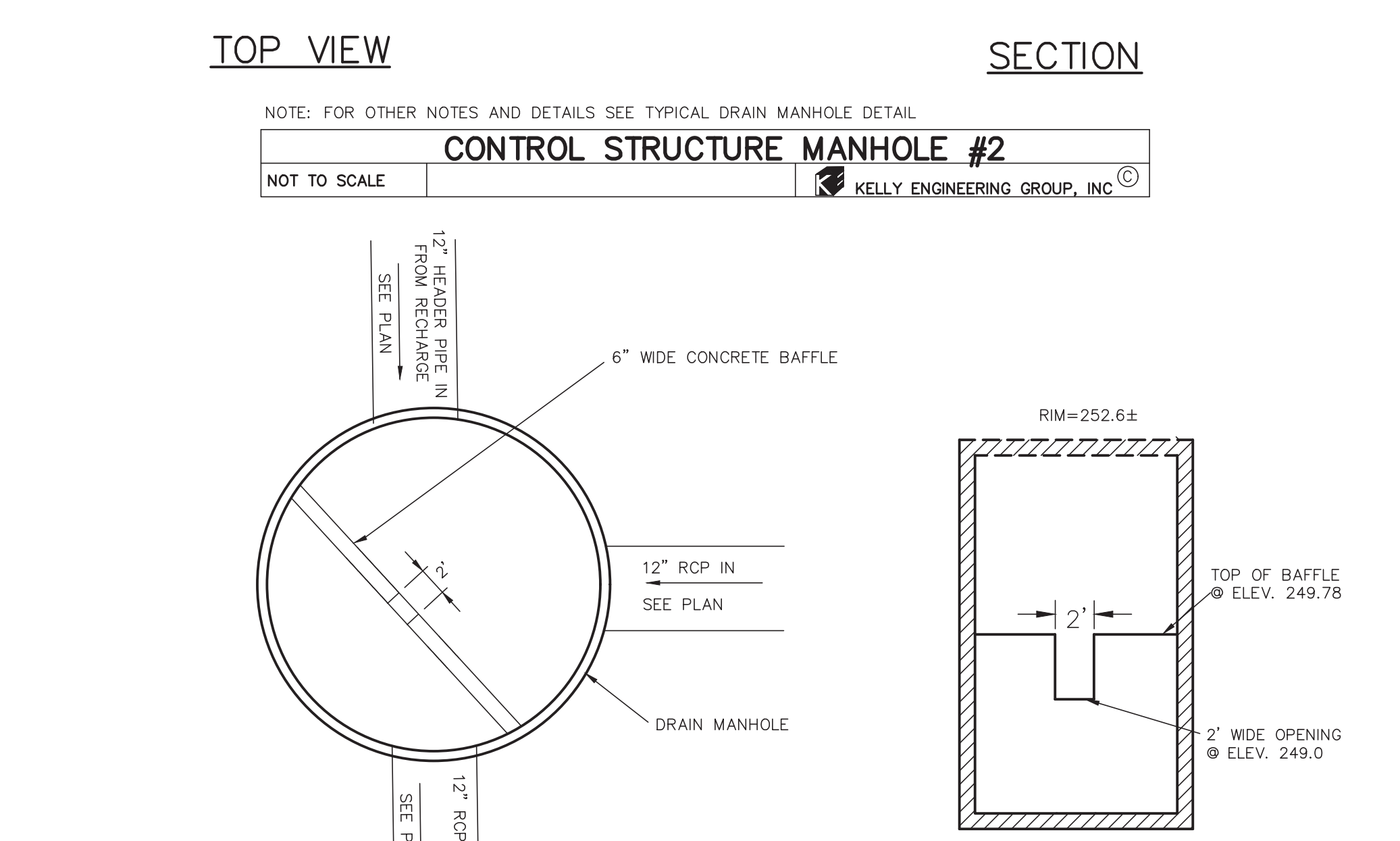
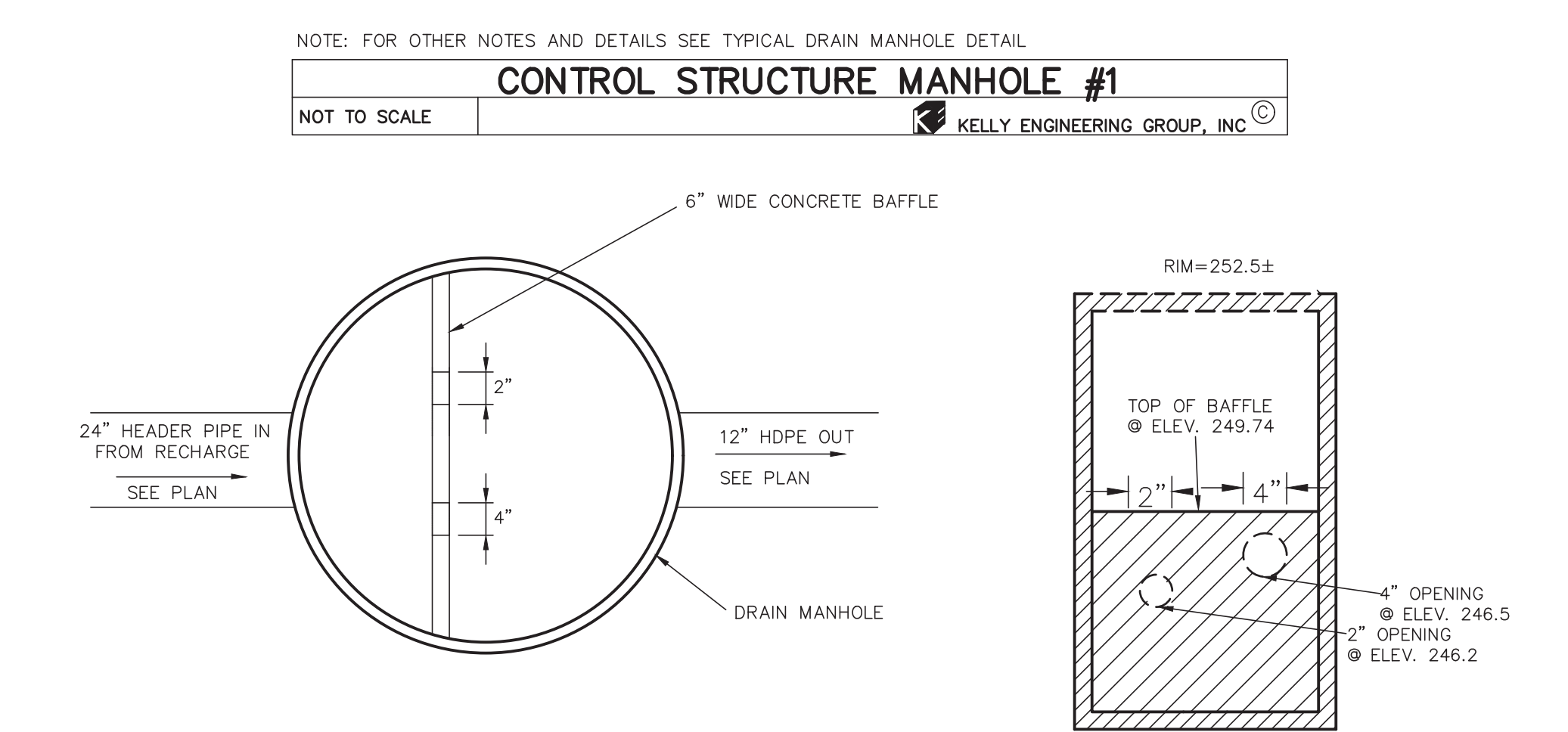
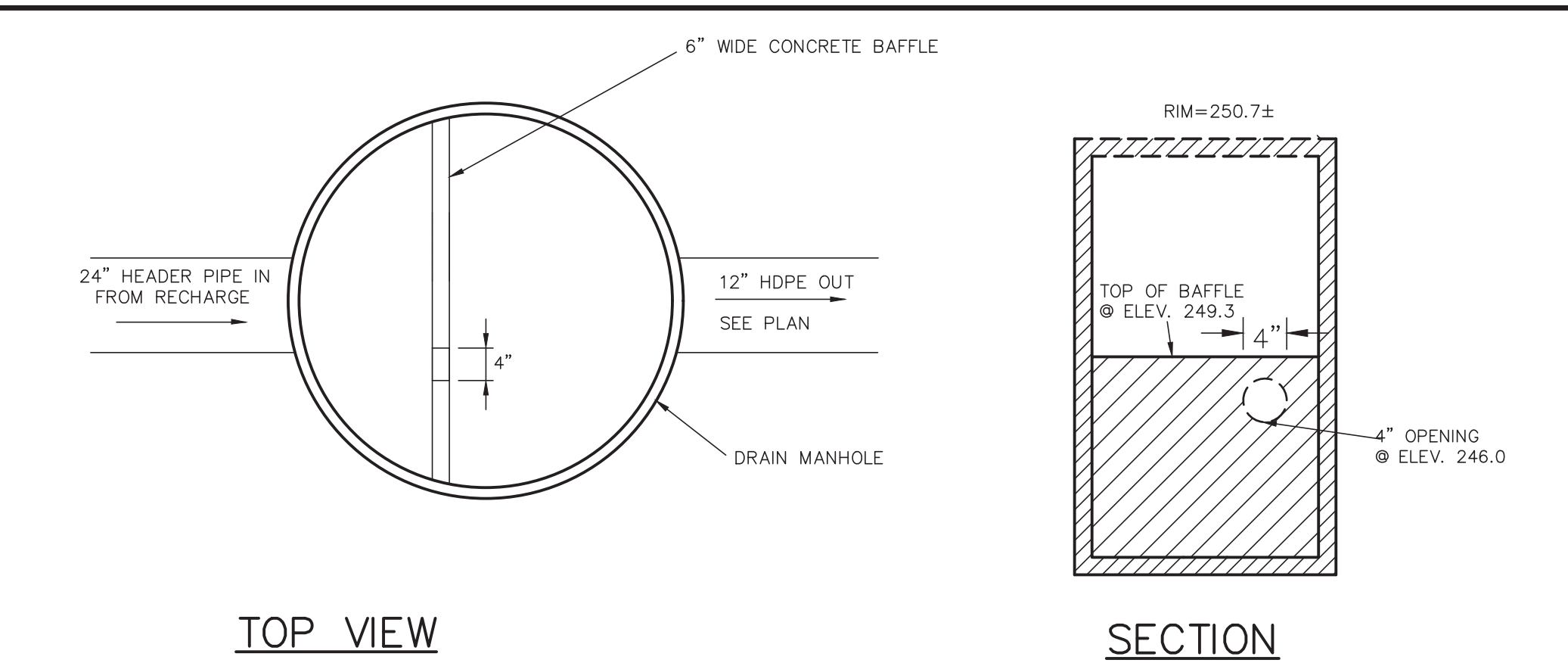
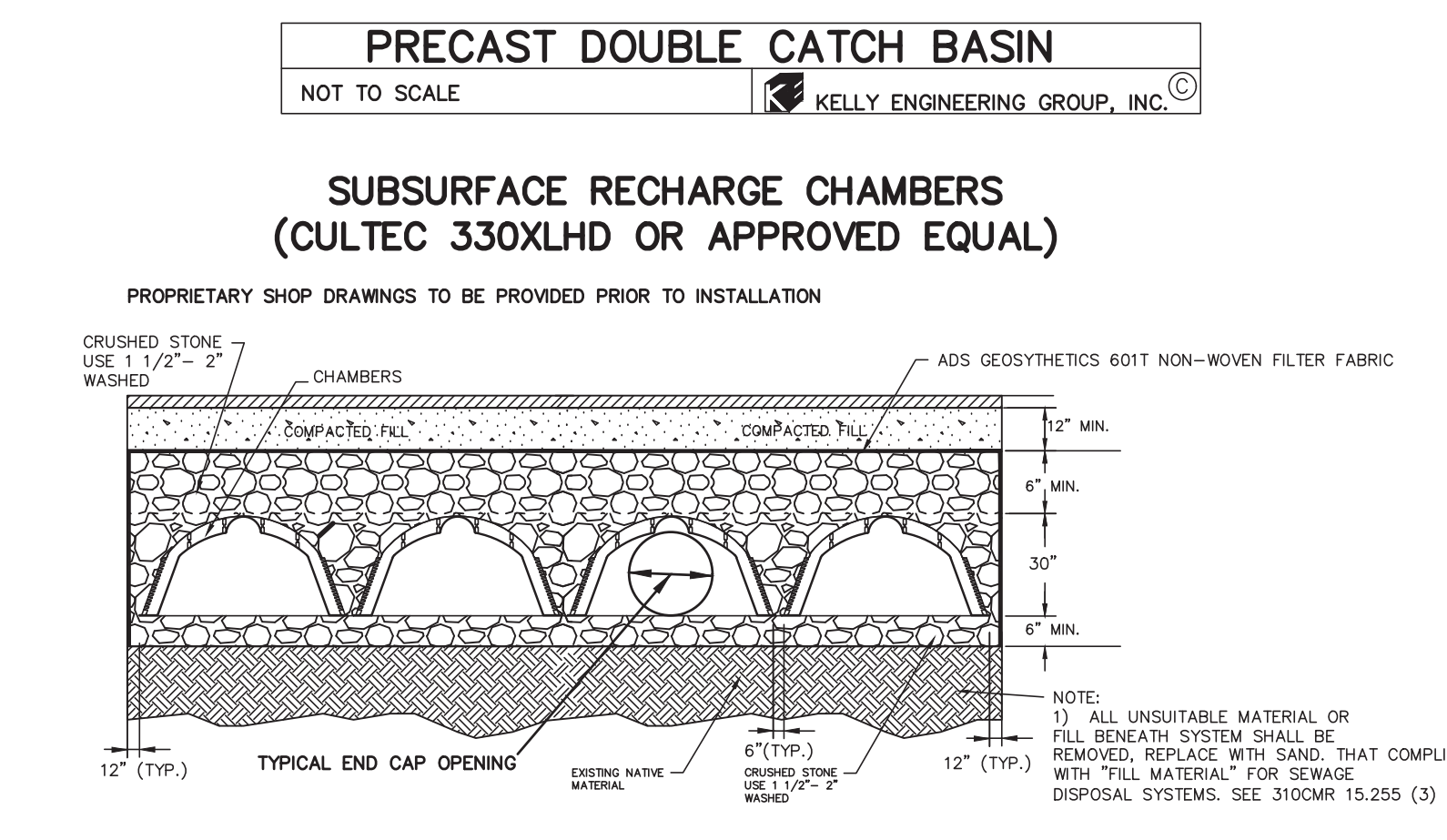
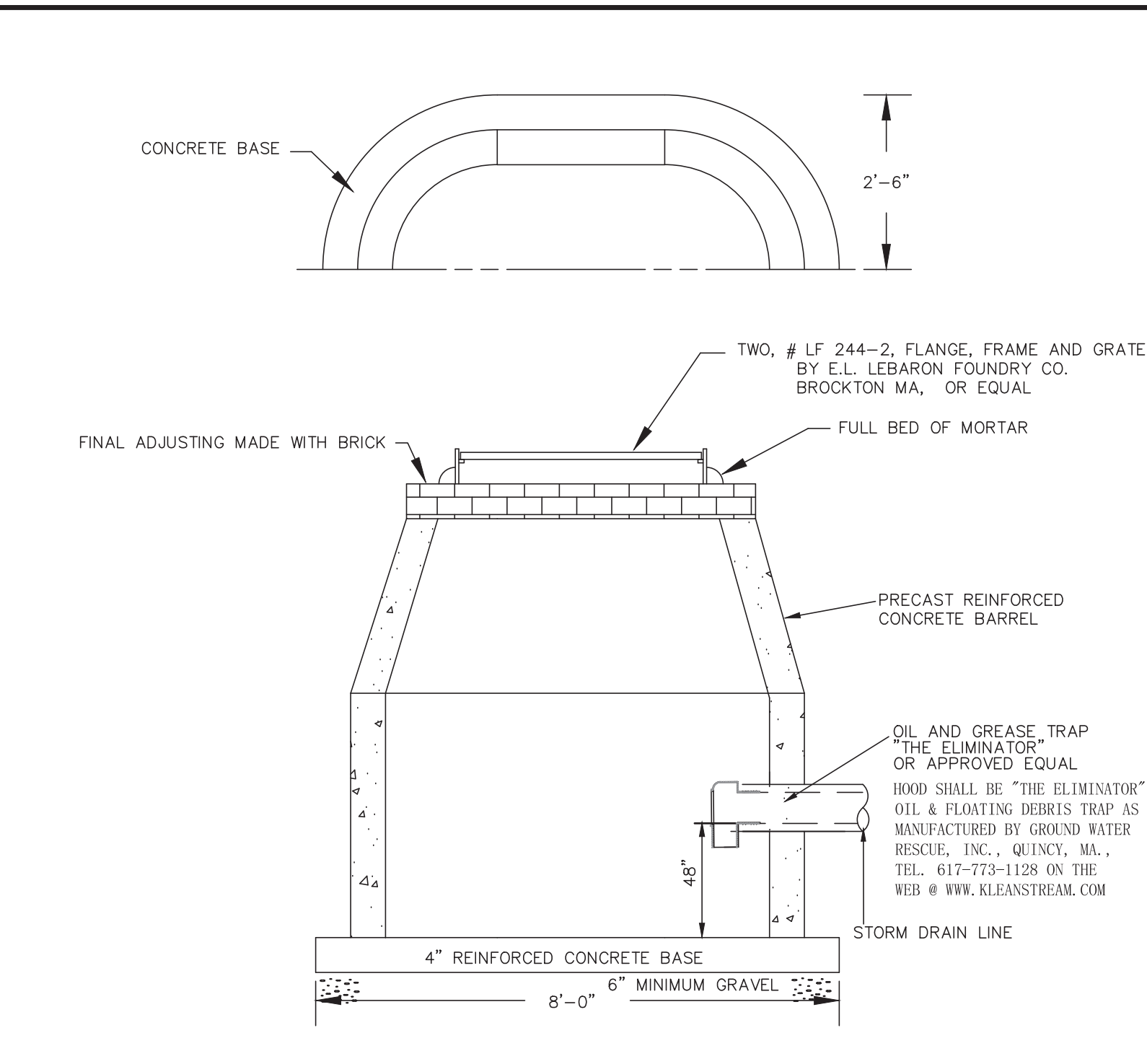
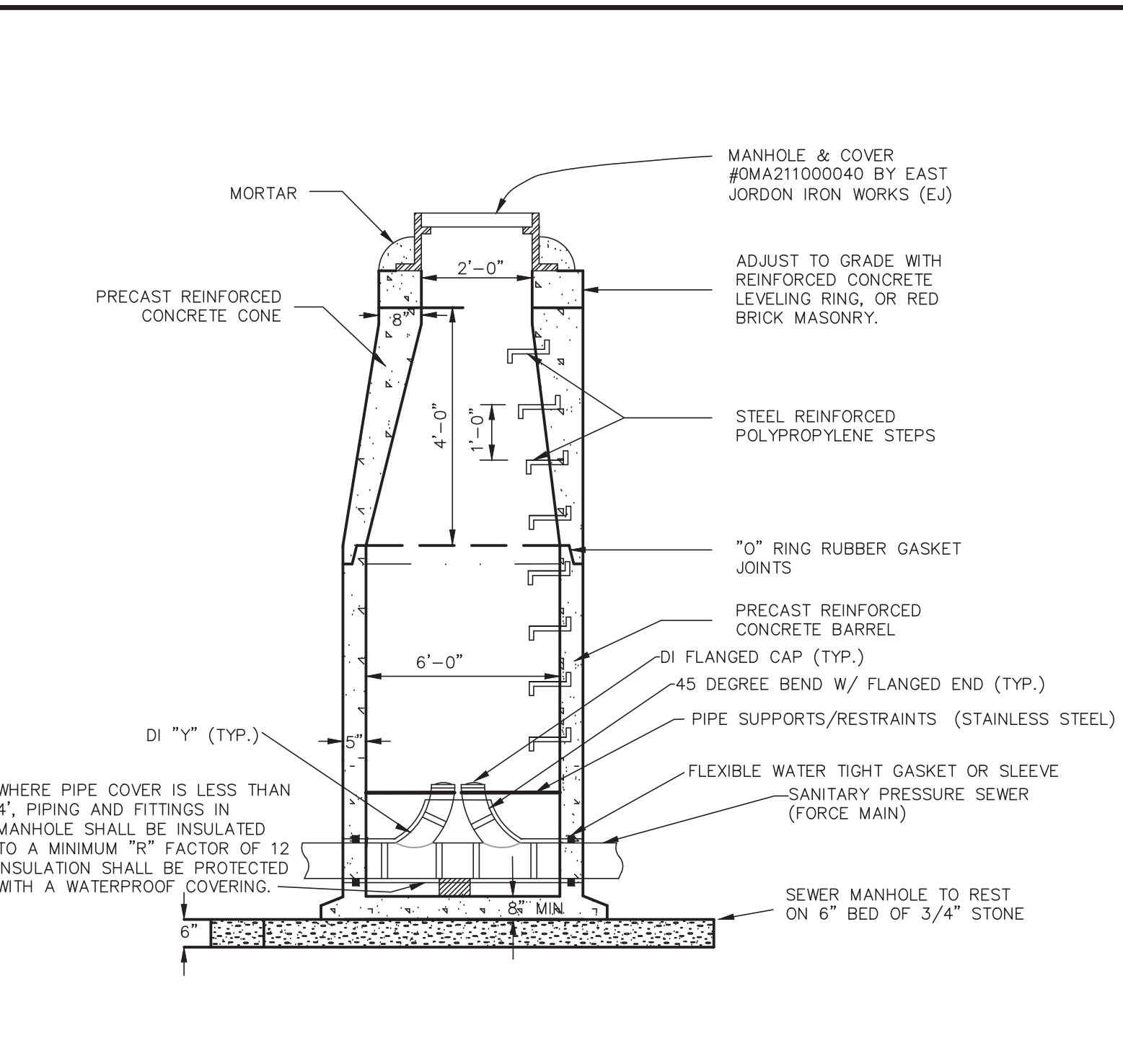
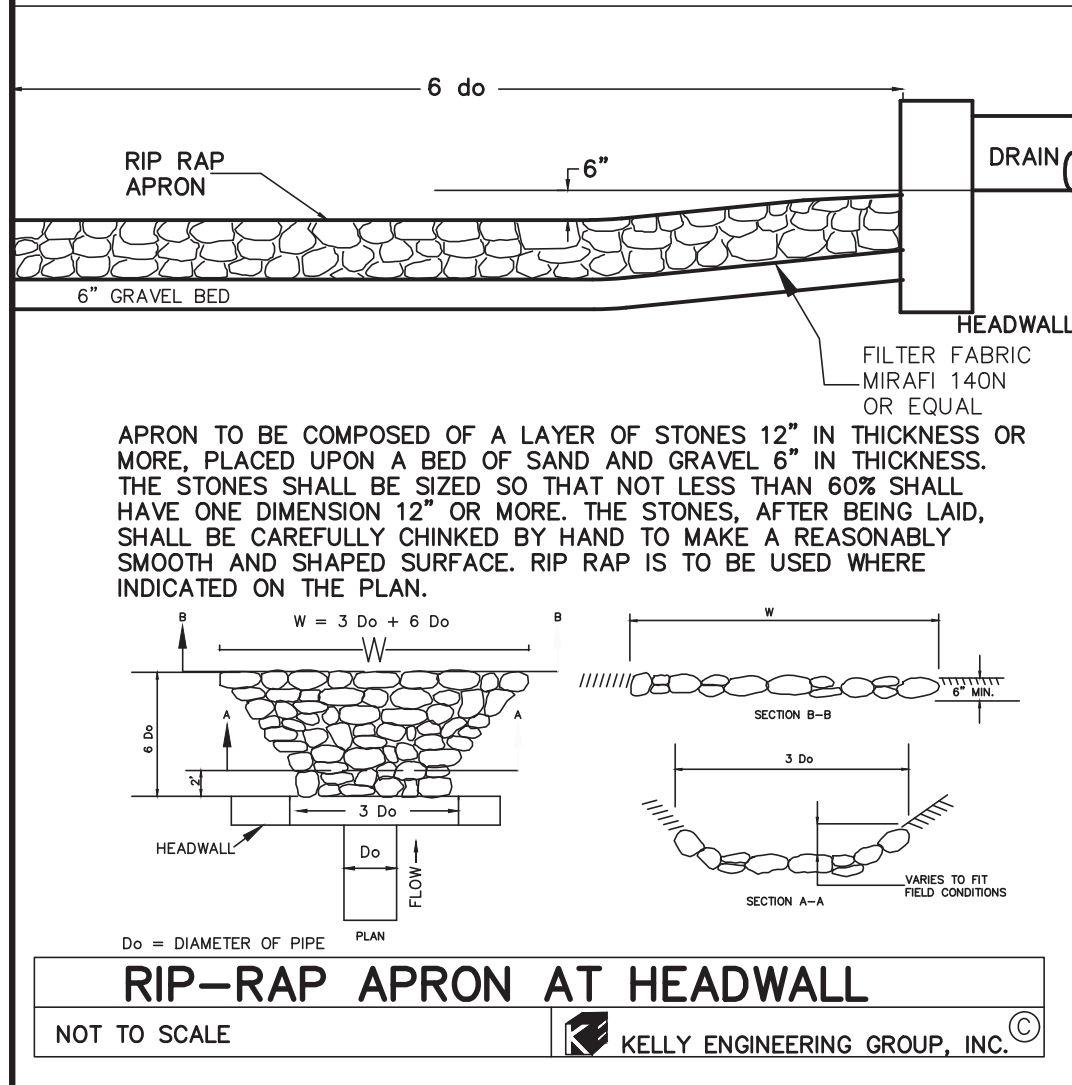
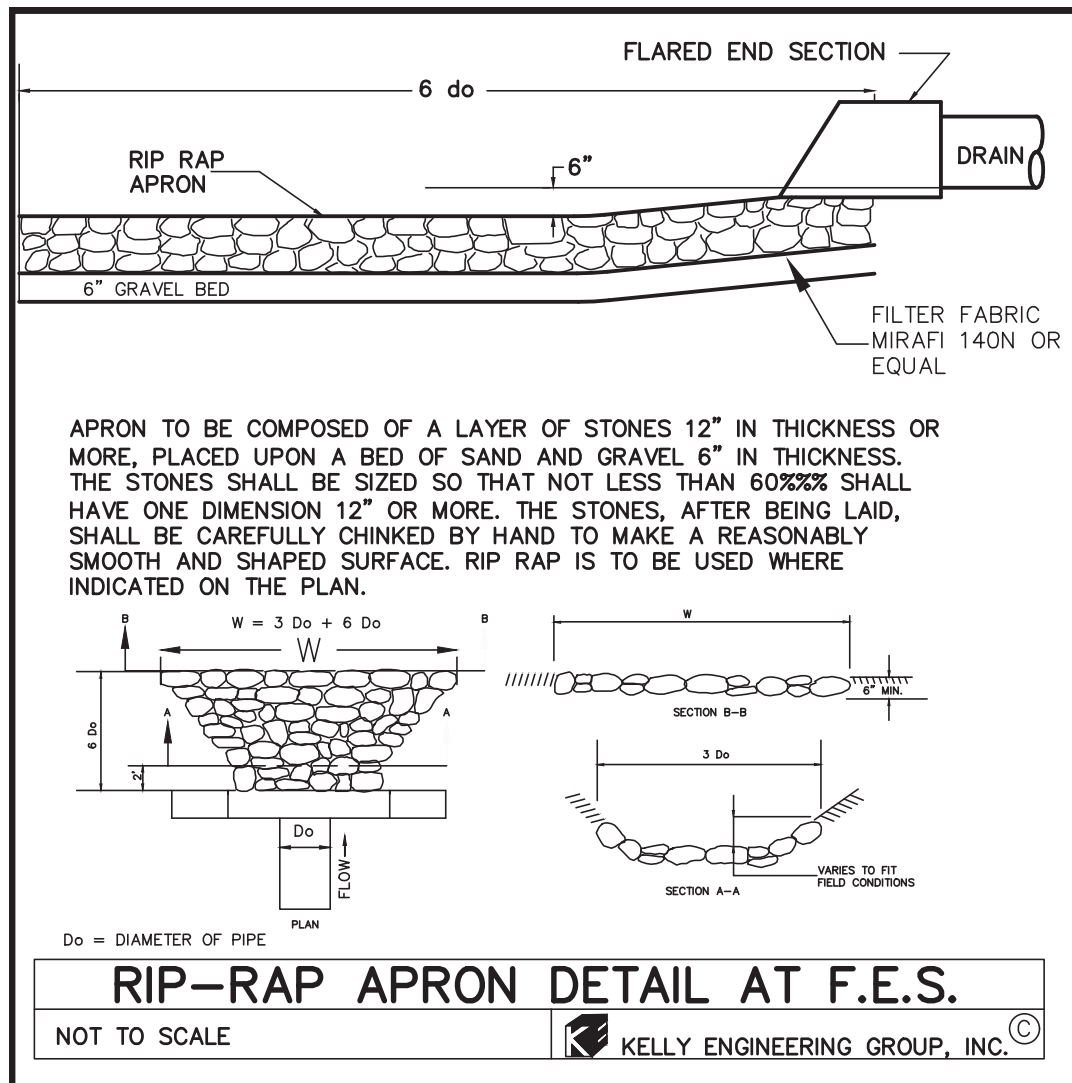
7.	08/06/21	TENNIS DIMENSIONS
6.	07/01/21	NO CHANGE
5.	11/16/20	NO CHANGE

SCALE	4.	10/01/20	PER TENANT COORDINATION
NA	3.	07/28/20	PLANNING BOARD COMMENTS
DATE	2.	06/02/20	NO CHANGE
02/14/20	1.	04/10/20	PER PEER REVIEW
REV	DATE	REVISION	BY

**MARCUS PARTNERS**  
 176- 210 GROVE STREET  
 FRANKLIN, MA  
**DETAIL SHEET**  
 DRAWN BY C.J.L.  
 CHKD BY GSH  
 APPD BY DNK

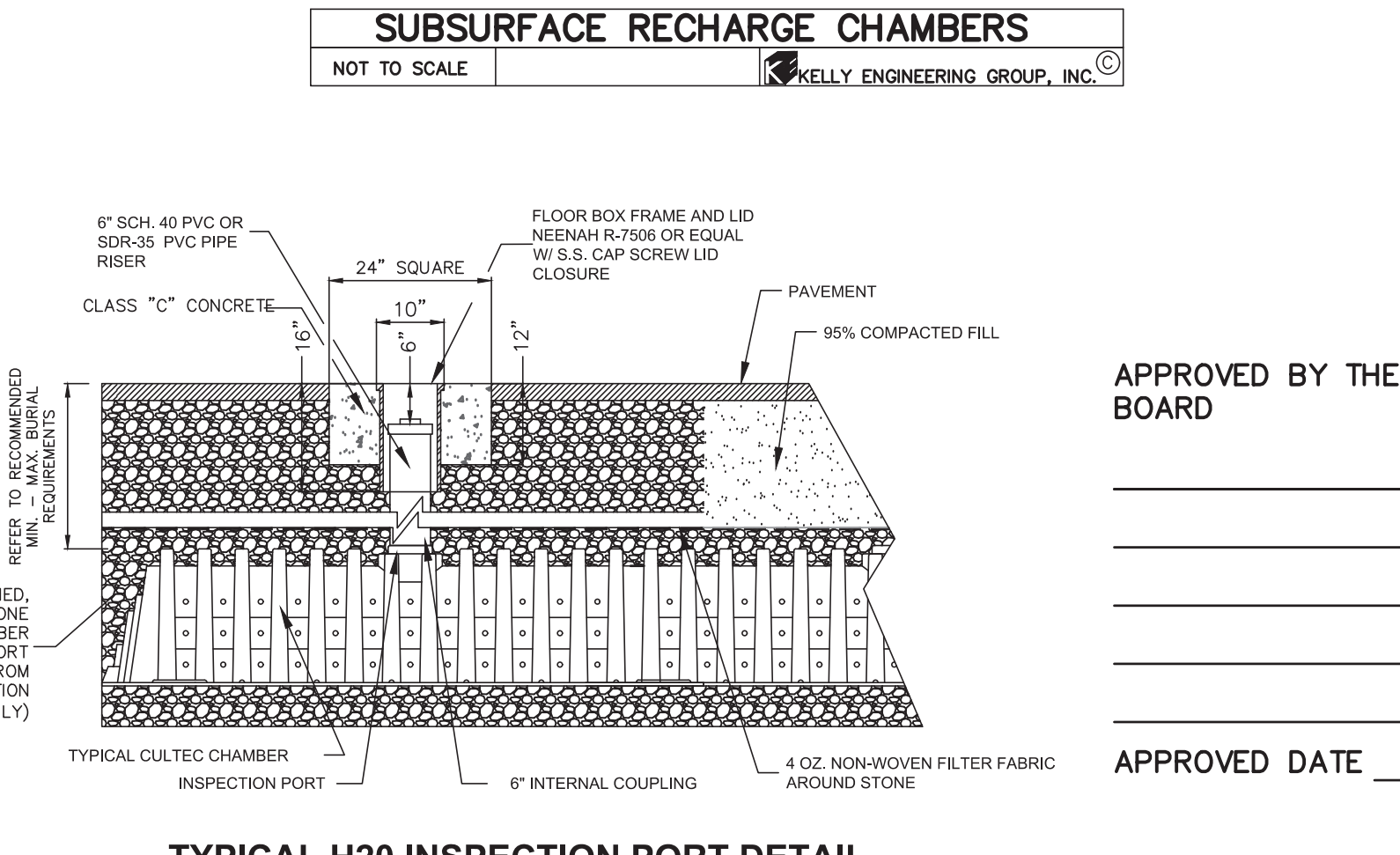
**PROFESSIONAL SEAL**  
 DAVID NOEL  
 KELLY CIVIL  
 NO. 37942  
 REGISTERED PROFESSIONAL ENGINEER  
 Digitally signed by David Noel  
 DN: cn=David Noel Kelly, o=Kelly Engineering Group, Inc., email=dkelly@kellyengineeringgroup.com, c=US  
 Date: 2021.08.09 09:02:01 -0400

SHEET NO. **9**



- STORMWATER MANAGEMENT SYSTEM CONSTRUCTION OPERATION + MAINTENANCE NOTES:**
- EXTREME CARE SHALL BE TAKEN DURING CONSTRUCTION TO AVOID SILTATION DURING THE CONSTRUCTION PROCESS.
  - EXTREME CARE SHALL BE TAKEN TO PREVENT COMPACTION OF UNDISTURBED SOILS BENEATH RECHARGE SYSTEM.
  - THERE SHALL BE NO DISCHARGE OF WATER FOR CONSTRUCTION DEWATERING ACTIVITIES INTO THE STORMWATER MANAGEMENT SYSTEM.
  - THERE SHALL BE NO DISCHARGE OF STORMWATER INTO THE RECHARGE SYSTEM UNTIL THE SITE HAS BEEN STABILIZED.

- CONSTRUCTION INSPECTION SCHEDULE**
- SILT SACKS AND SILT SOCKS SHALL BE INSPECTED AND REPLACED AS NECESSARY.
  - INSPECTIONS SHALL INCLUDE THE PAVEMENT TO DETERMINE IF ACCUMULATED SEDIMENT IS TO BE REMOVED, OF THE CATCH BASINS TO DETERMINE DEPTH OF SEDIMENTS AND REQUIRED CLEANING, AND INSPECTION OF THE RECHARGE SYSTEM TO DETERMINE IF CLEANING IS NECESSARY.
  - AN INSPECTION OF THE EXCAVATION OF THE RECHARGE SYSTEM SHALL BE CONDUCTED BY THE ENGINEER AND A REPRESENTATIVE THE TOWN'S ENGINEERING DEPARTMENT PRIOR TO PLACEMENT OF ANY CHAMBERS.



Recharger 330XLHD Stormwater System by CULTEC, Inc.		CULTEC RECHARGER 330XLHD LEGEND	
STARTER CHAMBERS	6	PIECES	STARTER CHAMBERS
INTERMEDIATE CHAMBERS	24	PIECES	INTERMEDIATE CHAMBERS
END CHAMBERS	6	PIECES	END CHAMBERS
HVLV FC-24 FEED CONNECTOR	5	PIECES	HVLV FC-24 FEED CONNECTOR
CULTEC NO. 411M FILTER FABRIC	405.02	SQ. YARDS	CULTEC NO. 20L POLYETHYLENE LINER
CULTEC NO. 20L POLYETHYLENE LINER	30.50	FEET	
STONE	109.85	CU. YARDS	
VOLUME OF EXCAVATION	237.72	CU. YARDS	

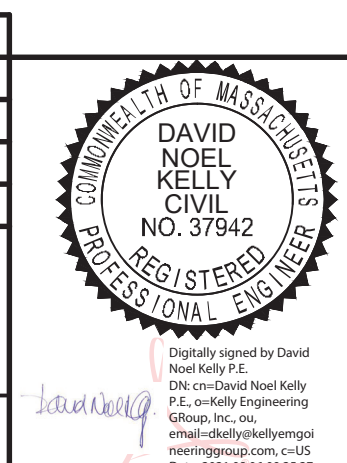
**CULTEC STORMWATER MANAGEMENT SYSTEM**  
TOTAL STORAGE PROVIDED: 3135.4 cu. feet  
(STORAGE PROVIDED IN STONE: 1188.3 cu. feet)  
(STORAGE PROVIDED IN CONNECTORS 2.3 cu. feet)  
\*SYSTEM INSTALLED REQUIRING STONE AMOUNTS OF 6.0 INCHES BELOW CHAMBERS, 6.0 INCHES ABOVE AND A 12.0 INCHES BORDER SURROUNDING

CULTEC, Inc.		CULTEC STORMWATER SYSTEM	
DESIGNED BY	DATE	PROJECT NAME	PROJECT ADDRESS
DRAWN BY	DATE	PROJECT CITY, STATE	
CHECKED BY	DATE	SCALE: N.T.S.	SHEET NO. 1 OF 1

SCALE	DATE	REVISION	BY
4.	10/01/20	PER TENANT COORDINATION	
3.	07/28/20	PLANNING BOARD COMMENTS	
2.	06/02/20	NO CHANGE	
1.	04/10/20	PER PEER REVIEW	

**MARCUS PARTNERS**  
176-210 GROVE STREET  
FRANKLIN, MA  
**DETAIL SHEET**

**KELLY ENGINEERING GROUP**  
civil engineering consultants  
0 Campanelli Drive, Braintree, MA 02184  
Phone: 781-843-4333 www.kellyengineeringgroup.com



**APPROVED BY THE FRANKLIN PLANNING BOARD**

**APPROVED DATE**

DATE	REVISION	BY
7.	08/06/21	TENANT REVISIONS
6.	07/01/21	NO CHANGE
5.	11/16/20	NO CHANGE

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SHEET NO. **10**

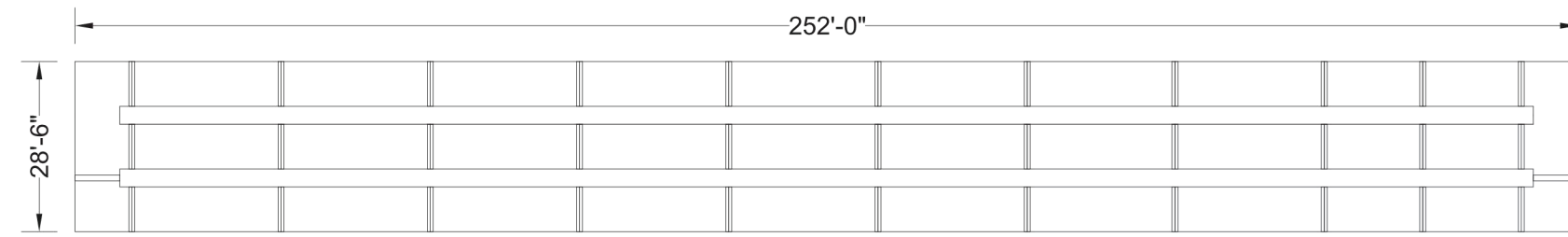
**PROJECT SUMMARY**

**CALCULATION DETAILS**  
 • LOADING = HS20 & HS25  
 • APPROX. LINEAR FOOTAGE = 768 ft.

**STORAGE SUMMARY**  
 • STORAGE VOLUME REQUIRED = 46,600 cf.  
 • PIPE STORAGE VOLUME = 33,929 cf.  
 • BACKFILL STORAGE VOLUME = 12,768 cf.  
 • TOTAL STORAGE PROVIDED = 46,697 cf.

**PIPE DETAILS**  
 • DIAMETER = 90 IN.  
 • CORRUGATION = 5x1  
 • GAGE = 16  
 • COATING = ALT2  
 • WALL TYPE = Perforated  
 • BARRELL SPACING = 36 IN.

**BACKFILL DETAILS**  
 • WIDTH AT ENDS = 12 IN.  
 • ABOVE PIPE = 6 IN.  
 • WIDTH AT SIDES = 12 IN.  
 • BELOW PIPE = 6 IN.



ASSEMBLY  
SCALE: 1" = 30'

DYO1548 206 Grove Street  
 90° CMP Detention - 43604 cf.  
 DETENTION SYSTEM

PROJECT No.	1548	DATE	7/30/2020
DESIGNED	DYO	DRAWN	DYO
CHECKED	DYO	APPROVED	DYO
SHEET No.	D1		



9025 Centre Pointe Dr., Suite 400, West Chester, OH 45399  
 800-338-1122 513-645-7000 513-645-7993 FAX



NOTE:  
 THESE DRAWINGS ARE FOR CONCEPTUAL PURPOSES AND DO NOT REFLECT ANY LOCAL PREFERENCES OR REGULATIONS. PLEASE CONTACT YOUR LOCAL CONTECH REP FOR MODIFICATIONS.

- NOTES**
- ALL RISER AND STUB DIMENSIONS ARE TO CENTERLINE. ALL ELEVATIONS, DIMENSIONS, AND LOCATIONS OF RISERS AND INLETS, SHALL BE VERIFIED BY THE ENGINEER OF RECORD PRIOR TO RELEASING FOR FABRICATION.
  - ALL FITTINGS AND REINFORCEMENT COMPLY WITH ASTM A998 GAGE UNLESS OTHERWISE NOTED.
  - RISERS TO BE FIELD TRIMMED TO GRADE.
  - QUANTITY OF PIPE SHOWN DOES NOT PROVIDE EXTRA PIPE FOR CONNECTING THE SYSTEM TO EXISTING PIPE OR DRAINAGE STRUCTURES. OUR SYSTEM AS DETAILLED PROVIDES NOMINAL INLET AND/OR OUTLET PIPE STUB FOR CONNECTION TO EXISTING DRAINAGE FACILITIES. IF ADDITIONAL PIPE IS NEEDED IT IS THE RESPONSIBILITY OF THE CONTRACTOR.
  - BAND TYPE TO BE DETERMINED UPON FINAL DESIGN.
  - THE PROJECT SUMMARY IS REFLECTIVE OF THE DYODS DESIGN. QUANTITIES ARE APPROX. AND SHOULD BE VERIFIED UPON FINAL DESIGN AND APPROVAL. FOR EXAMPLE, TOTAL EXCAVATION DOES NOT CONSIDER ALL VARIABLES SUCH AS SHORING AND ONLY ACCOUNTS FOR MATERIAL WITHIN THE ESTIMATED EXCAVATION FOOTPRINT.

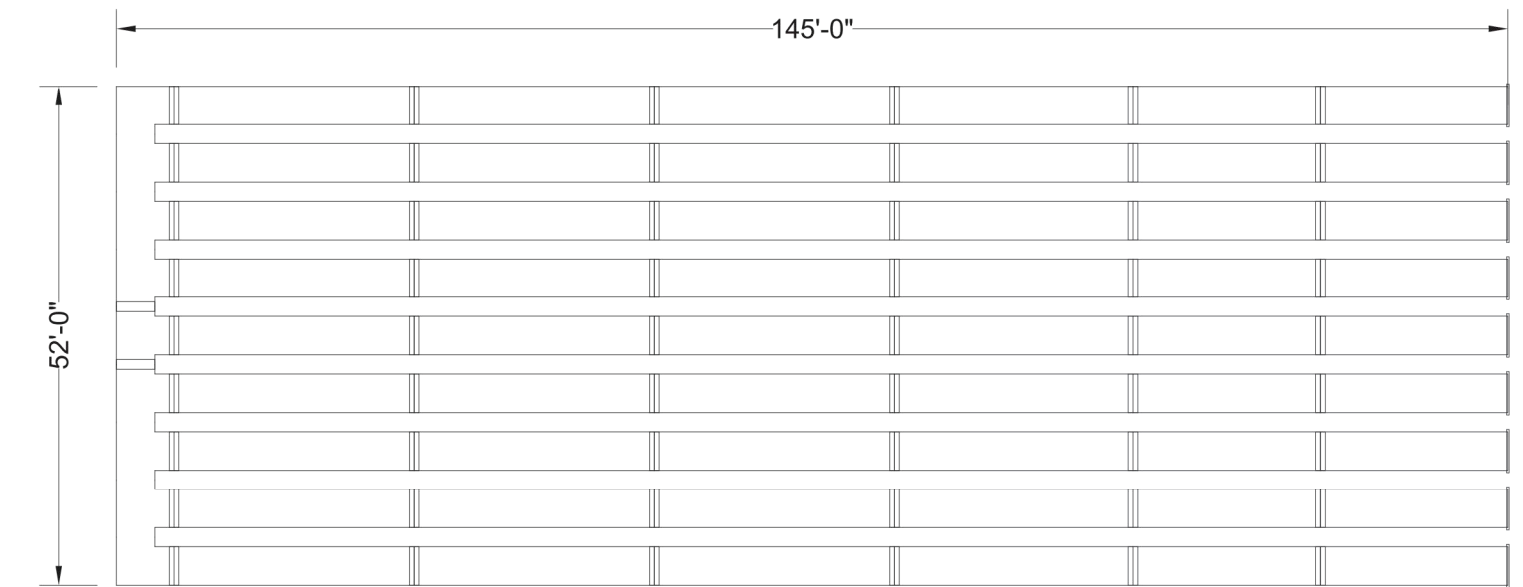
**PROJECT SUMMARY**

**CALCULATION DETAILS**  
 • LOADING = HS20 & HS25  
 • APPROX. LINEAR FOOTAGE = 1,321 ft.

**STORAGE SUMMARY**  
 • STORAGE VOLUME REQUIRED = 25,800 cf.  
 • PIPE STORAGE VOLUME = 16,600 cf.  
 • BACKFILL STORAGE VOLUME = 9,236 cf.  
 • TOTAL STORAGE PROVIDED = 25,836 cf.

**PIPE DETAILS**  
 • DIAMETER = 48 IN.  
 • CORRUGATION = 2 2/3x1/2  
 • GAGE = 16  
 • COATING = ALT2  
 • WALL TYPE = Perforated  
 • BARRELL SPACING = 24 IN.

**BACKFILL DETAILS**  
 • WIDTH AT ENDS = 12 IN.  
 • ABOVE PIPE = 6 IN.  
 • WIDTH AT SIDES = 12 IN.  
 • BELOW PIPE = 6 IN.



ASSEMBLY  
SCALE: 1" = 20'

DYO1584 206 Grove Street  
 48° CMP Detention - 16600 cf.  
 DETENTION SYSTEM

PROJECT No.	1584	DATE	7/30/2020
DESIGNED	DYO	DRAWN	DYO
CHECKED	DYO	APPROVED	DYO
SHEET No.	D1		

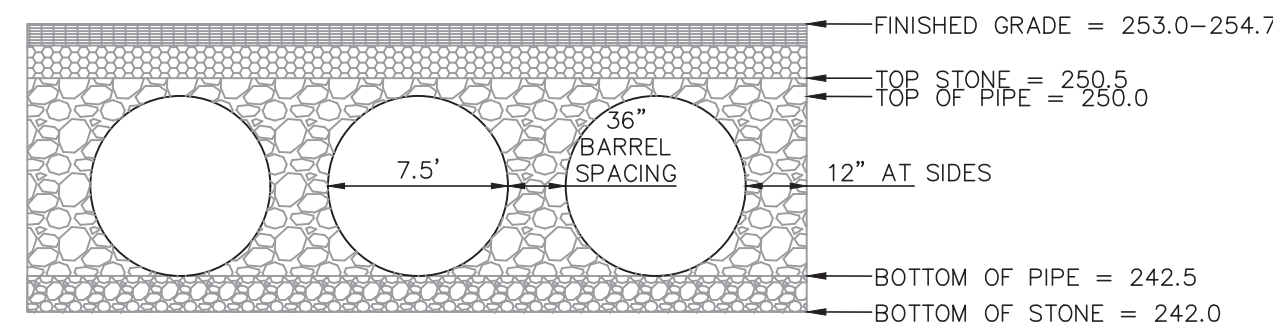


9025 Centre Pointe Dr., Suite 400, West Chester, OH 45399  
 800-338-1122 513-645-7000 513-645-7993 FAX



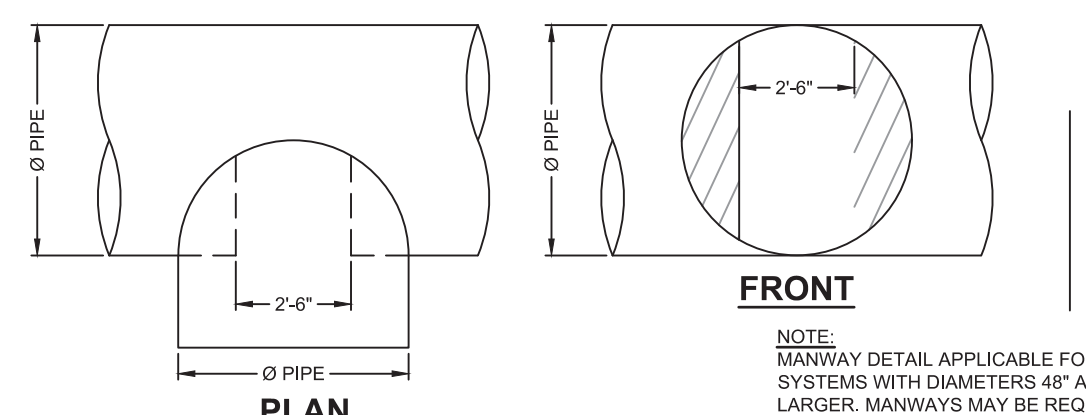
NOTE:  
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  - RISERS TO BE FIELD TRIMMED TO GRADE.
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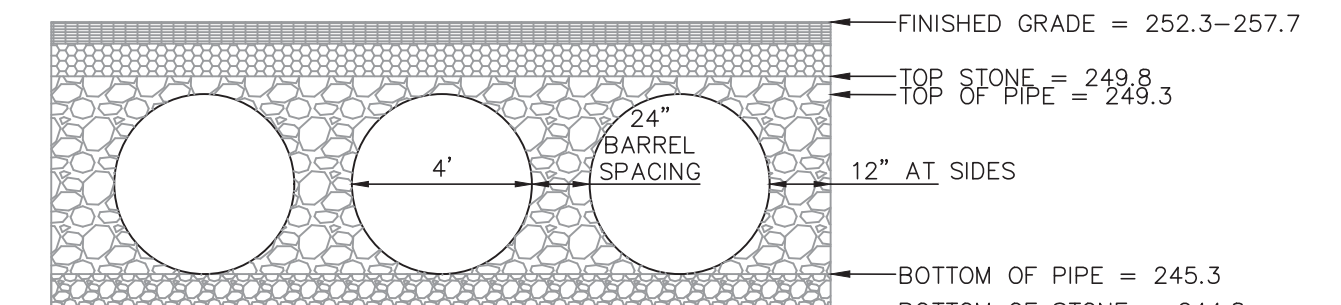
SECTION VIEW SUBSURFACE SYSTEM 1  
 NOT TO SCALE KELLY ENGINEERING GROUP, INC.

NOTE: PRIOR TO CONSTRUCTION FULL SHOP DRAWINGS TO BE PROVIDED BY MANUFACTURER.



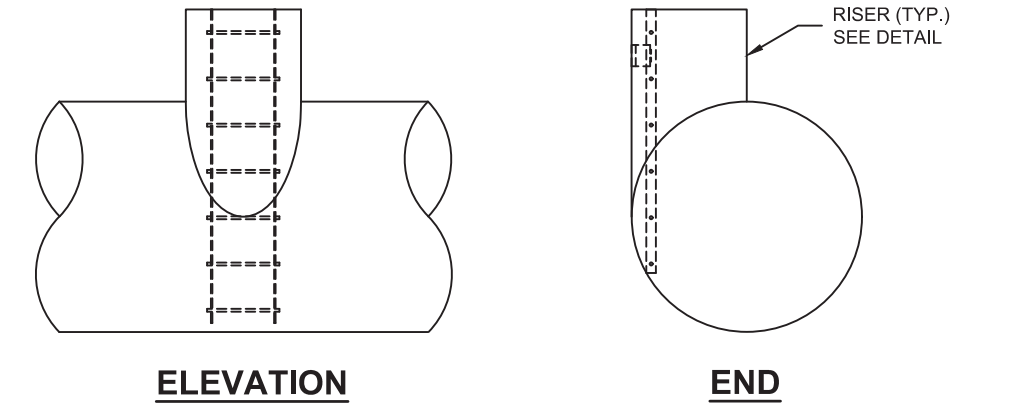
TYPICAL MANWAY DETAIL  
 SCALE: N.T.S.

NOTE: MANWAY DETAIL APPLICABLE FOR CMP SYSTEMS WITH DIAMETERS 48" AND LARGER. MANWAYS MAY BE REQUIRED ON SMALLER SYSTEMS DEPENDING ON ACTUAL SITE SPECIFIC CONDITIONS.



SECTION VIEW SUBSURFACE SYSTEM 2  
 NOT TO SCALE KELLY ENGINEERING GROUP, INC.

NOTE: PRIOR TO CONSTRUCTION FULL SHOP DRAWINGS TO BE PROVIDED BY MANUFACTURER.



TYPICAL RISER DETAIL  
 SCALE: N.T.S.

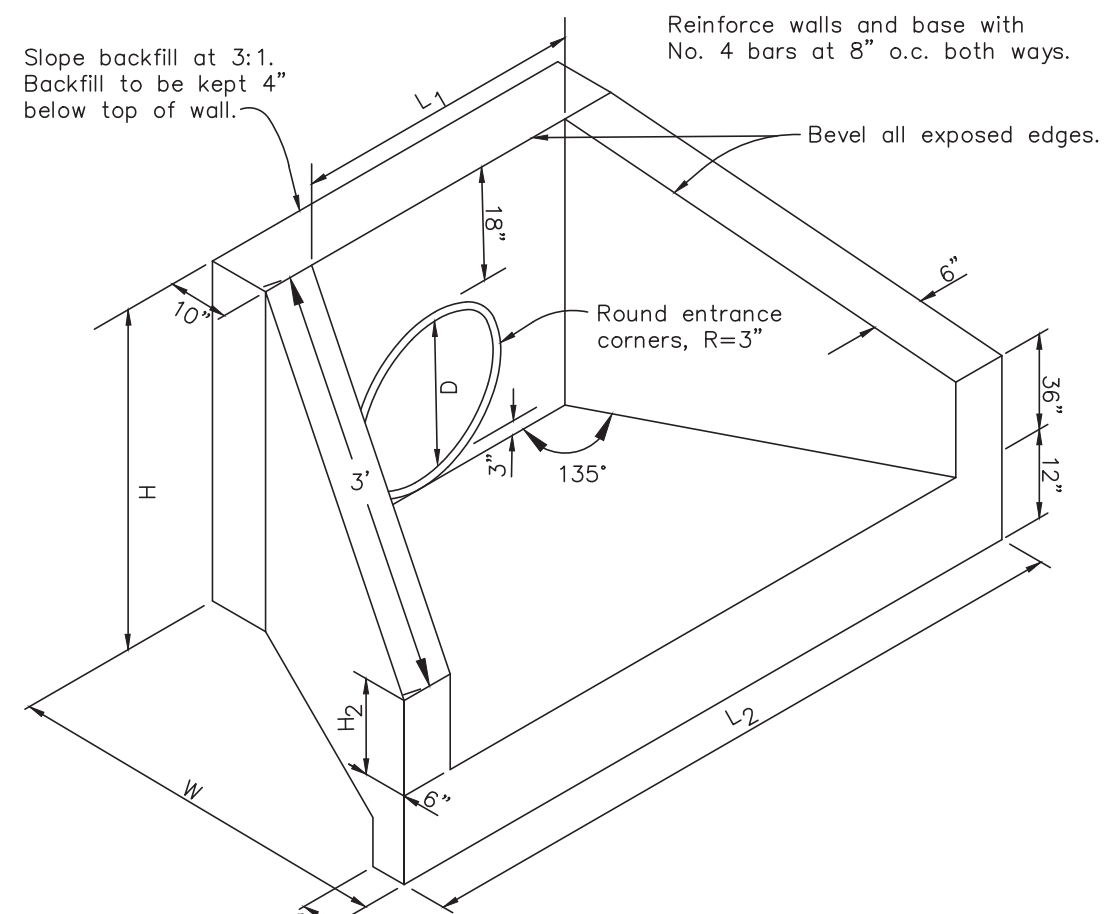
NOTE: LADDERS ARE OPTIONAL AND ARE NOT REQUIRED FOR ALL SYSTEMS.

NOTE: PRIOR TO CONSTRUCTION FULL SHOP DRAWINGS TO BE PROVIDED BY MANUFACTURER.

APPROVED BY THE FRANKLIN PLANNING BOARD

APPROVED DATE \_\_\_\_\_

HEADWALL #	D	H <sub>1</sub>	H <sub>2</sub>	L <sub>1</sub>	L <sub>2</sub>	W <sub>1</sub>
1	12"	35'	0.5'	4'	7.5'	2.5'
2	15"	3.7'	0.5'	4'	8.0'	3.0'
3	15"	3.7'	0.5'	4'	8.0'	3.0'
4	12"	3.5'	0.5'	4'	7.5'	3.0'
5	42"	5.7'	0.5'	6.8'	13'	4.0'
6	42"	5.7'	0.5'	6.8'	13'	4.0'



NOTE:  
 Concrete shall be Class B" ( 5 sack mix ) unless otherwise noted.

HEADWALL DETAIL  
 NOT TO SCALE KELLY ENGINEERING GROUP, INC.

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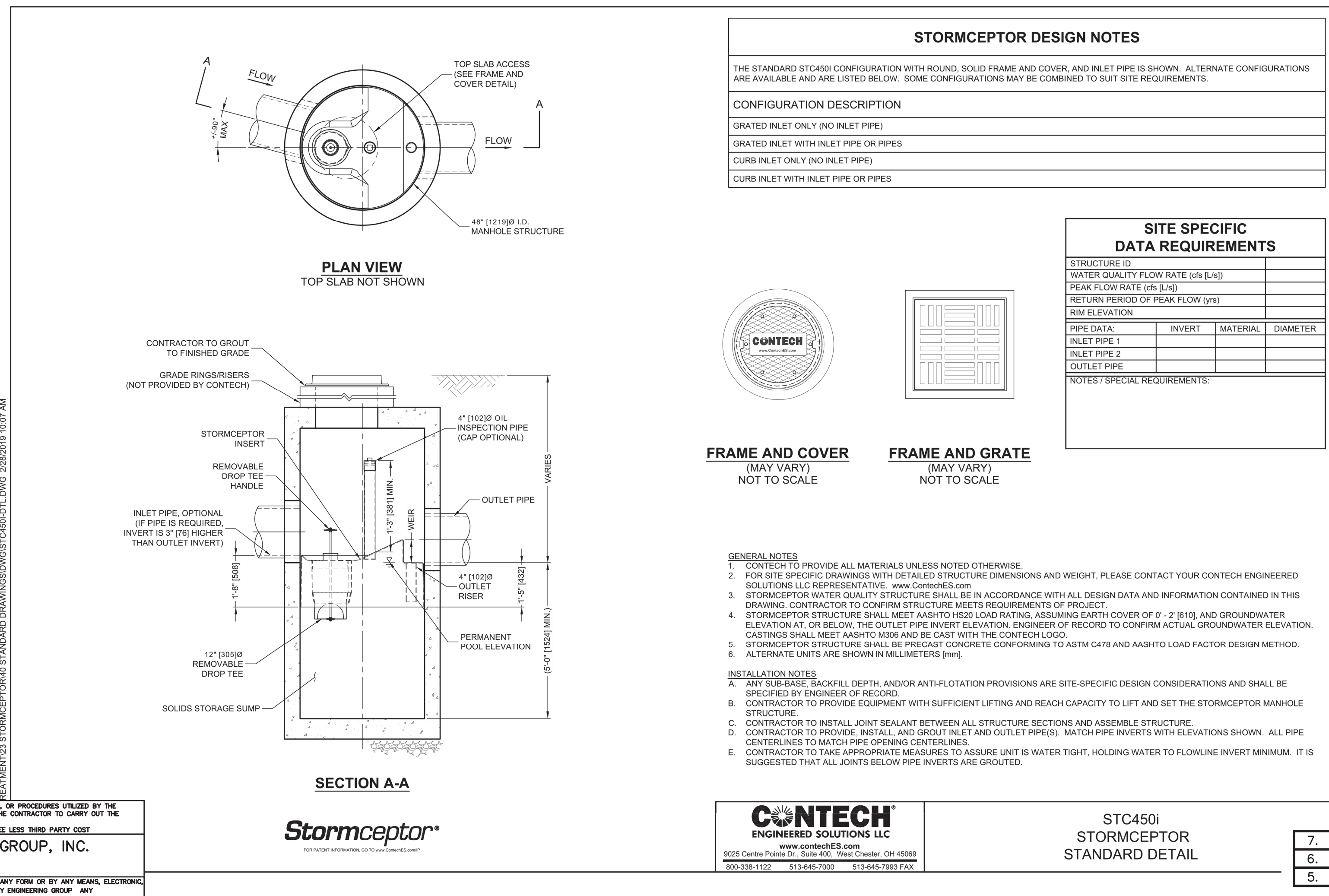
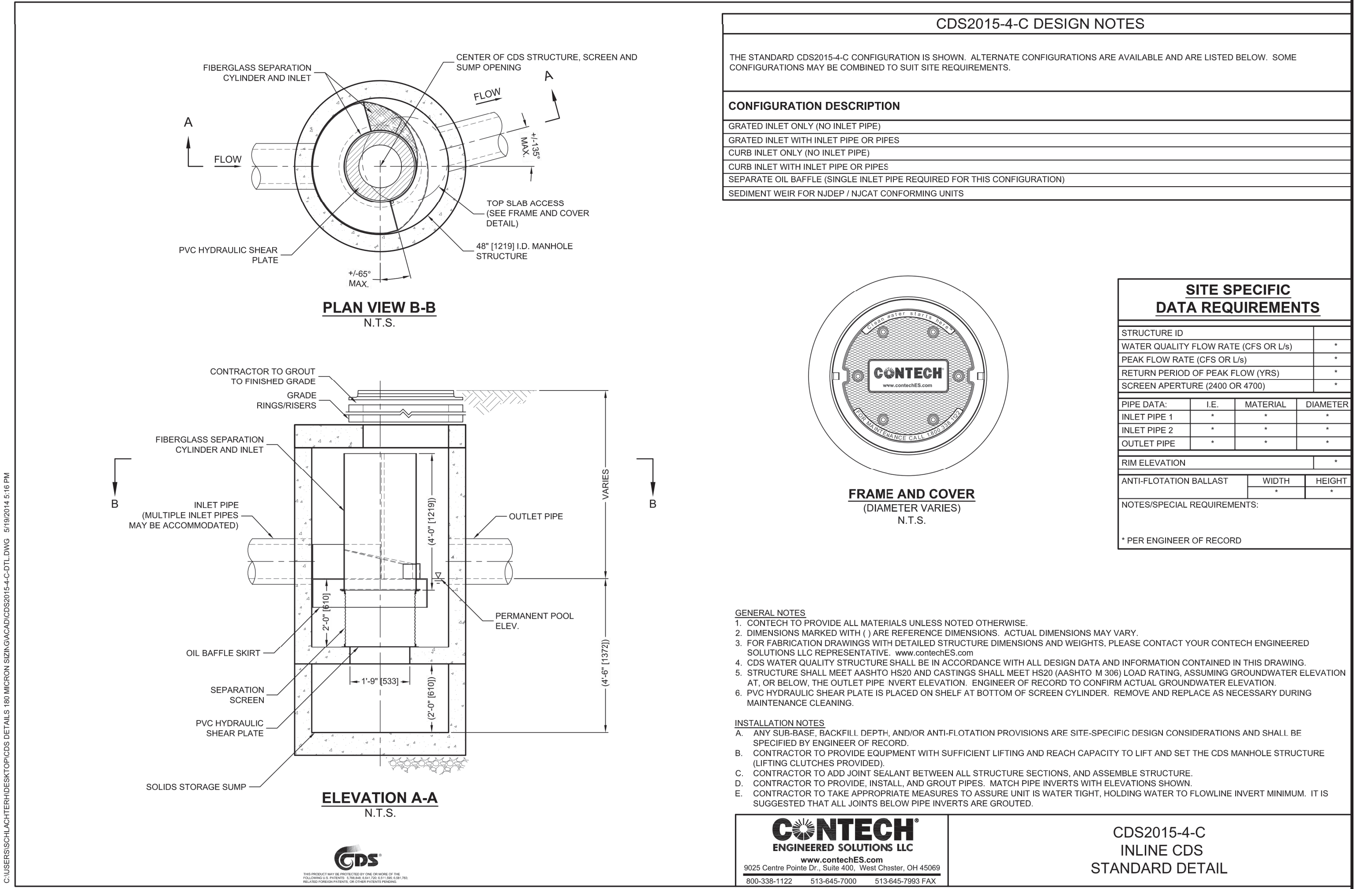
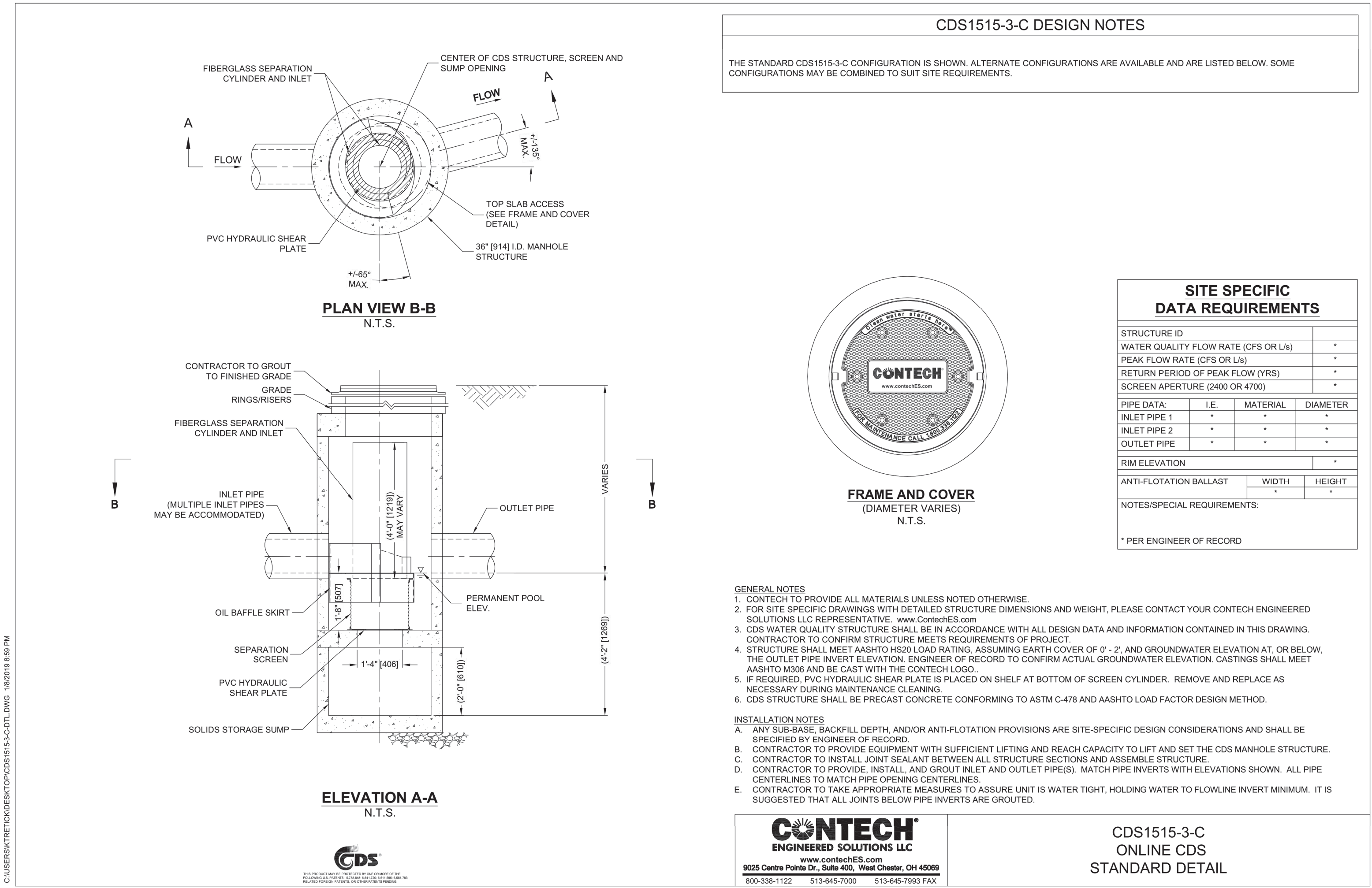
7.	08/06/21	TENNIS CRENSHAW	
6.	07/01/21	NO CHANGE	
5.	11/16/20	NO CHANGE	

SCALE	4.	10/01/20	PER TENANT COORDINATION	
NA	3.	07/28/20	PLANNING BOARD COMMENTS	
DATE	2.	06/02/20	NO CHANGE	
02/14/20	1.	04/10/20	PER PEER REVIEW	
REV	DATE	REVISION	BY	
SHEET	MARCUS PARTNERS			
11 of 12	176- 210 GROVE STREET			
FILE #	FRANKLIN, MA			
2019-127-DT07	DETAIL SHEET			
JOB #	KELLY ENGINEERING GROUP			
F:\P\2019-127	civil engineering consultants			
DRAWN BY	0 Campanelli Drive, Braintree, MA 02184			
C.L.	Phone: 781-843-4333 www.kellyengineeringgroup.com			
CHKD BY				
GSH				
APPD BY				

DAVID NOEL KELLY CIVIL ENGINEER REGISTERED PROFESSIONAL ENGINEER

Digitally signed by David Noel Kelly  
 DN: cn=David Noel Kelly, o=Kelly Engineering Group, Inc., email=dnokelly@kellyeng.com, serial=155, date=2021.08.06.15:24:00Z

SHEET NO. 11



C:\USERS\KATHLEEN\DRAWINGS\CDS1515-3-C-DTL.DWG 10/20/19 10:07 AM

C:\USERS\KATHLEEN\DRAWINGS\CDS2015-4-C-DTL.DWG 10/20/19 10:07 AM

E:\PROJECTS\STORMCEPTOR\STANDARD DRAWINGS\STC450I-DTL.DWG 2/28/2019 10:07 AM

APPROVED BY THE FRANKLIN PLANNING BOARD

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

APPROVED DATE \_\_\_\_\_

SCALE	4.	10/01/20	PER TENANT COORDINATION		
NA	3.	07/28/20	PLANNING BOARD COMMENTS		
DATE	2.	06/02/20	NO CHANGE		
02/14/20	1.	04/10/20	PER PEER REVIEW		
	REV	DATE	REVISION		BY

**MARCUS PARTNERS**  
176- 210 GROVE STREET  
FRANKLIN, MA

**DETAIL SHEET**

**KELLY ENGINEERING GROUP**  
civil engineering consultants  
0 Campanelli Drive, Braintree, MA 02184  
Phone: 781-843-4333 [www.kellyengineeringgroup.com](http://www.kellyengineeringgroup.com)

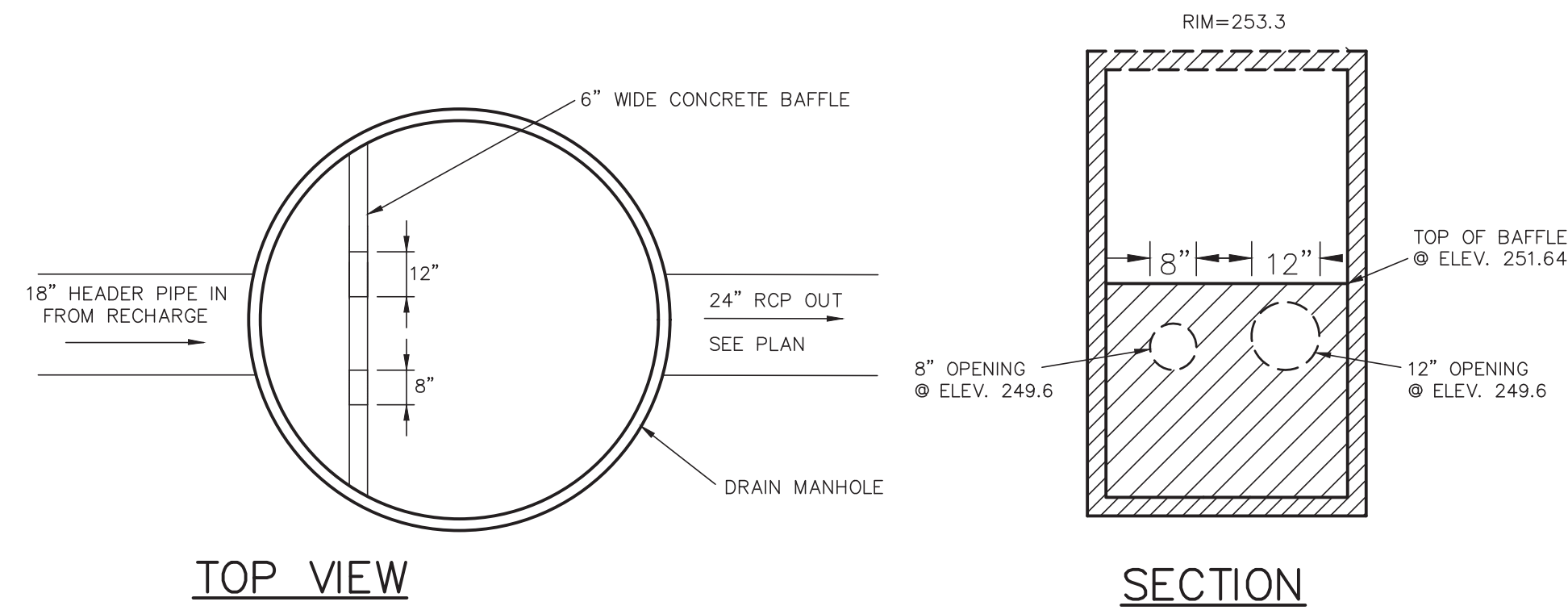
SHEET NO.

12

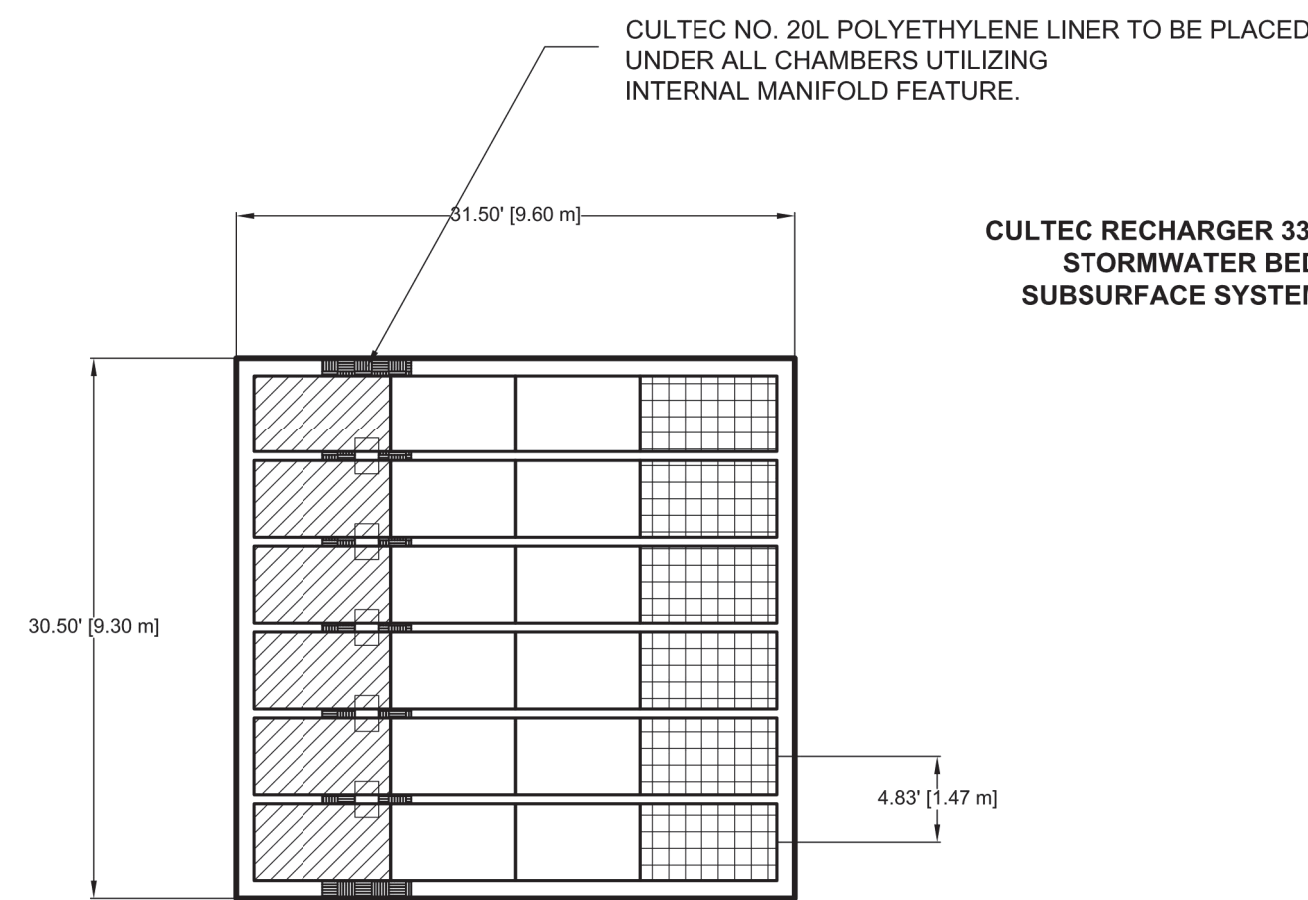
Digitally signed by David Noel Kelly  
DN: cn=David Noel Kelly, o=Kelly Engineering Group, Inc., email=dnk@kellyeng.com, c=US  
Date: 2019.08.09.10:07:00 -0400

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NOTE: FOR OTHER NOTES AND DETAILS SEE TYPICAL DRAIN MANHOLE DETAIL  
**CONTROL STRUCTURE MANHOLE #4**  
 NOT TO SCALE  
 KELLY ENGINEERING GROUP, INC.



**CULTEC RECHARGER 330XLHD STORMWATER BED SUBSURFACE SYSTEM #4**

Recharger 330XLHD Stormwater System by CULTEC, Inc.		CULTEC RECHARGER 330XLHD LEGEND	
STARTER CHAMBERS	6	PIECES	STARTER CHAMBERS
INTERMEDIATE CHAMBERS	12	PIECES	INTERMEDIATE CHAMBERS
END CHAMBERS	6	PIECES	END CHAMBERS
HVLY FC-24 FEED CONNECTOR	5	PIECES	HVLY FC-24 FEED CONNECTOR
CULTEC NO. 410™ FILTER FABRIC	288.53	SQ. YARDS	
CULTEC NO. 20L POLYETHYLENE LINER	30.50	FEET	
STONE	77.94	CU. YARDS	
VOLUME OF EXCAVATION	164.67	CU. YARDS	

CULTEC STORMWATER MANAGEMENT SYSTEM	
TOTAL STORAGE PROVIDED:	2154.6 cu. feet (STORAGE PROVIDED IN CHAMBERS: 1320.2 cu. feet) (STORAGE PROVIDED IN STONE: 832.1 cu. feet) (STORAGE PROVIDED IN CONNECTORS: 2.3 cu. feet)
*SYSTEM INSTALLED REQUIRING STONE AMOUNTS OF 6.0 INCHES BELOW CHAMBERS, 6.0 INCHES ABOVE AND A 12.0 INCHES BORDER SURROUNDING	

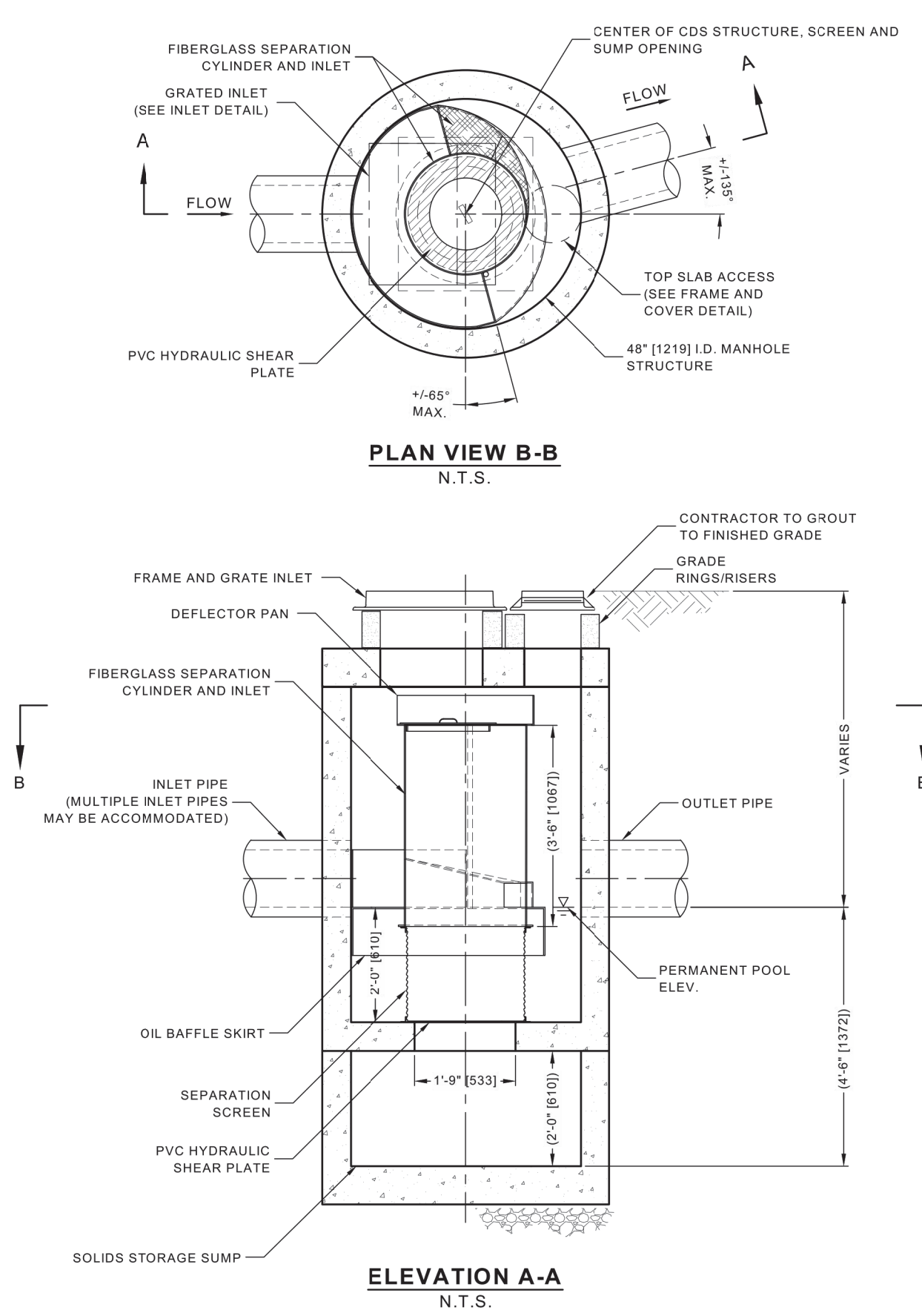
CULTEC, Inc.	
250 Main Street 679 Federal Road Branford, CT 06408 www.cultec.com	PH (860) 775-8418 PH (860) 434-1414 PH (860) 775-1462 fax@cultec.com

CULTEC STORMWATER SYSTEM	
PROJECT NO.	DATE
DESIGNED BY:	DRAWN BY: STORMENG
SCALE: N.T.S.	SHEET NO. 1 OF 1

**SUBSURFACE SYSTEM #4**  
 NOT TO SCALE  
 KELLY ENGINEERING GROUP, INC.

US: STORMWATER/URBAN/INFRASTRUCTURE/DESIGN/SEE DESIGN TOOL/STANDARD DETAILS/CDS2015-4-C/GRATE INLET/DWG. #80201112.PDW



**PLAN VIEW B-B**  
 N.T.S.

**ELEVATION A-A**  
 N.T.S.

CDS2015-4-C DESIGN NOTES	
CDS2015-4-C RATED TREATMENT CAPACITY IS 1.4 CFS (19.8 L/s) OR PER LOCAL REGULATIONS.	
THE GRATE INLET CDS2015-4-C CONFIGURATION IS SHOWN. ALTERNATE CONFIGURATIONS ARE AVAILABLE AND ARE LISTED BELOW. SOME CONFIGURATIONS MAY BE COMBINED TO SUIT SITE REQUIREMENTS.	
CONFIGURATION DESCRIPTION	
GRATED INLET ONLY (NO INLET PIPE)	
GRATED INLET WITH INLET PIPE OR PIPES	
CURB INLET ONLY (NO INLET PIPE)	
CURB INLET WITH INLET PIPE OR PIPES	
SEPARATE OIL BAFFLE (SINGLE INLET PIPE REQUIRED FOR THIS CONFIGURATION)	
SEDIMENT WEIR FOR NJDEP / NJCAT CONFORMING UNITS	

SITE SPECIFIC DATA REQUIREMENTS			
STRUCTURE ID			
WATER QUALITY FLOW RATE (CFS OR L/s)	*		
PEAK FLOW RATE (CFS OR L/s)	*		
RETURN PERIOD OF PEAK FLOW (YRS)	*		
SCREEN APERTURE (2400 OR 4700)	*		
PIPE DATA:			
INLET PIPE 1	I.E.	MATERIAL	DIAMETER
INLET PIPE 2	*	*	*
OUTLET PIPE	*	*	*
RIM ELEVATION		*	
ANTI-FLOTATION BALLAST	WIDTH	HEIGHT	*
NOTES/SPECIAL REQUIREMENTS:			
* PER ENGINEER OF RECORD			

**24" X 24" FRAME AND GRATE**  
 (MAY VARY)  
 NOT TO SCALE

**FRAME AND COVER**  
 (MAY VARY)  
 NOT TO SCALE

**GENERAL NOTES**

- CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
- DIMENSIONS MARKED WITH ( ) ARE REFERENCE DIMENSIONS. ACTUAL DIMENSIONS MAY VARY.
- FOR FABRICATION DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHTS, PLEASE CONTACT YOUR CONTECH ENGINEERED SOLUTIONS LLC REPRESENTATIVE. www.ContechES.com
- CDS WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING.
- STRUCTURE SHALL MEET AASHTO H220 AND CASTINGS SHALL MEET H220 (AASHTO M 306) LOAD RATING, ASSUMING GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION.
- PVC HYDRAULIC SHEAR PLATE IS PLACED ON SHELF AT BOTTOM OF SCREEN CYLINDER. REMOVE AND REPLACE AS NECESSARY DURING MAINTENANCE CLEANING.

**INSTALLATION NOTES**

- ANY SUB-BASE BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
- CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE CDS MANHOLE STRUCTURE (LIFTING CLUTCHES PROVIDED).
- CONTRACTOR TO ADD JOINT SEALANT BETWEEN ALL STRUCTURE SECTIONS, AND ASSEMBLE STRUCTURE.
- CONTRACTOR TO PROVIDE, INSTALL, AND GROUT PIPES. MATCH PIPE INVERTS WITH ELEVATIONS SHOWN.
- CONTRACTOR TO TAKE APPROPRIATE MEASURES TO ASSURE UNIT IS WATER TIGHT, HOLDING WATER TO FLOWLINE INVERT MINIMUM. IT IS SUGGESTED THAT ALL JOINTS BELOW PIPE INVERTS ARE GROUTED.

**CONTECH ENGINEERED SOLUTIONS LLC**  
 www.ContechES.com  
 9025 Centre Pointe Dr., Suite 400, West Chester, OH 45389  
 800-338-1122 513-645-7000 513-645-7993 FAX

**CDS2015-4-C WITH GRATED INLET INLINE CDS STANDARD DETAIL**

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APPROVED BY THE FRANKLIN PLANNING BOARD

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

APPROVED DATE \_\_\_\_\_

7.	08/06/21	TENANT REVISIONS	
6.	07/01/21	NO CHANGE	
5.	11/16/20	NO CHANGE	

SCALE	4.	10/01/20	PER TENANT COORDINATION	
NA	3.	07/28/20	PLANNING BOARD COMMENTS	
DATE	2.	06/02/20	NO CHANGE	
02/14/20	1.	04/10/20	PER PEER REVIEW	
REV	DATE	REVISION	BY	

SHEET 13 of 13  
 FILE # 2019-127-DT07

JOB # F:\P\2019-127

DRAWN BY C.L.

CHKD BY GSH

APPD BY DMP

**MARCUS PARTNERS**  
 176- 210 GROVE STREET  
 FRANKLIN, MA

**DETAIL SHEET**

**KELLY ENGINEERING GROUP**  
 civil engineering consultants  
 0 Campanelli Drive, Braintree, MA 02184  
 Phone: 781-843-4333 www.kellyengineeringgroup.com

STATE OF MASSACHUSETTS  
 REGISTERED PROFESSIONAL ENGINEER

DAVID  
 KOLY  
 CIVIL  
 NO. 37942

Respectfully approved by David  
 KOLY  
 PE, License No. 37942  
 Kelly Engineering Group, Inc.  
 0 Campanelli Drive, Braintree, MA 02184  
 Phone: 781-843-4333

SHEET NO. **13**

# 176-210 GROVE STREET

FRANKLIN, MASSACHUSETTS

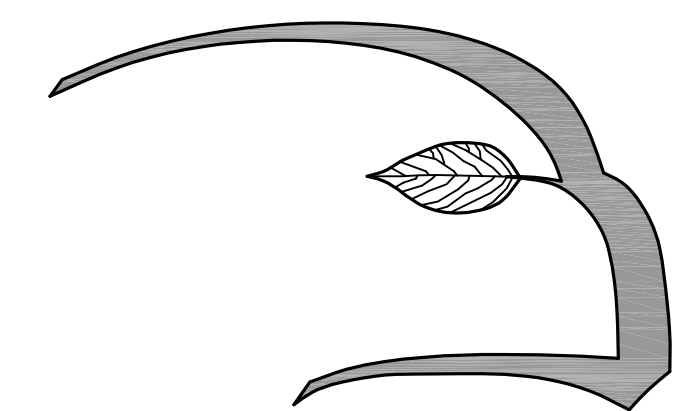
## LANDSCAPE PERMIT SUBMISSION SET

### LIST OF DRAWINGS:

		SET DATE
L1	LANDSCAPE MASTER PLAN	8/4/21
L2	SITE PLANTING PLAN	8/4/21
L3	ENLARGEMENT PLANTING PLANS AND PLANT LIST	8/4/21
D1	PLANTING DETAILS	8/4/21
D2	PLANTING NOTES	8/4/21

APPLICANT:  
MCP III 176 GROVE LLC &  
MCP III 210 GROVE LLC  
260 FRANKLIN STREET, SUITE 620  
BOSTON, MA 02110  
TEL: 617.556.5200

PREPARED BY:



**Hawk Design, Inc.**

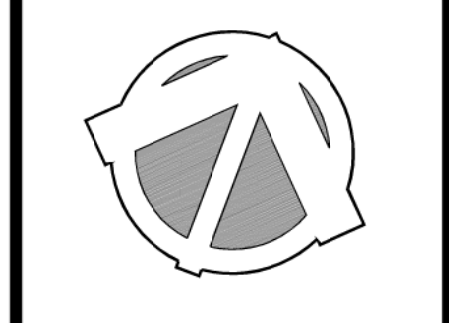
Landscape Architecture  
Land Planning

Sagamore, MA

508-833-8800

info@hawkdesigninc.com

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Date: 2/14/20

Revisions:

Num.	Date	Description
1.	7/28/20	Final Town Submission
2.	11/5/20	Revise planting plan as per site plan revisions
3.	6/29/21	Revise planting plan as per site plan revisions
4.	8/4/21	Revise planting plan as per site plan revisions

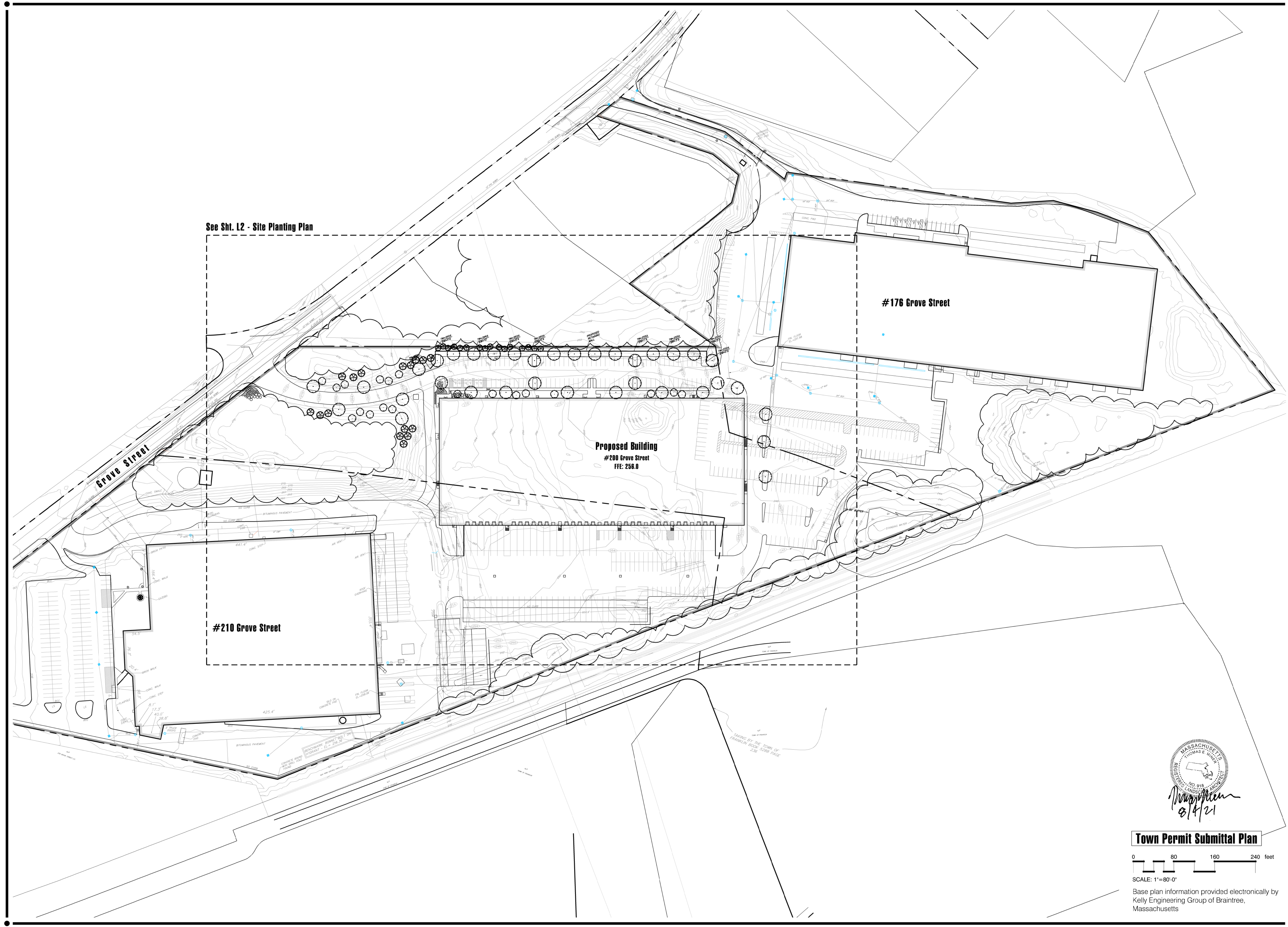
**176-210 Grove Street**  
Franklin, Massachusetts  
Prepared for: MCP III 176 Grove LLC & MCP III 210 Grove LLC

Drawn By: BNL | Checked By: TEM

**Landscape Master Plan**

Scale: 1" = 80'-0"

Sheet: **L1**



See Sht. L2 - Site Planting Plan

Proposed Building  
#200 Grove Street  
FFE: 256.0

#176 Grove Street

#210 Grove Street

*Temple*  
8/14/21

**Town Permit Submittal Plan**

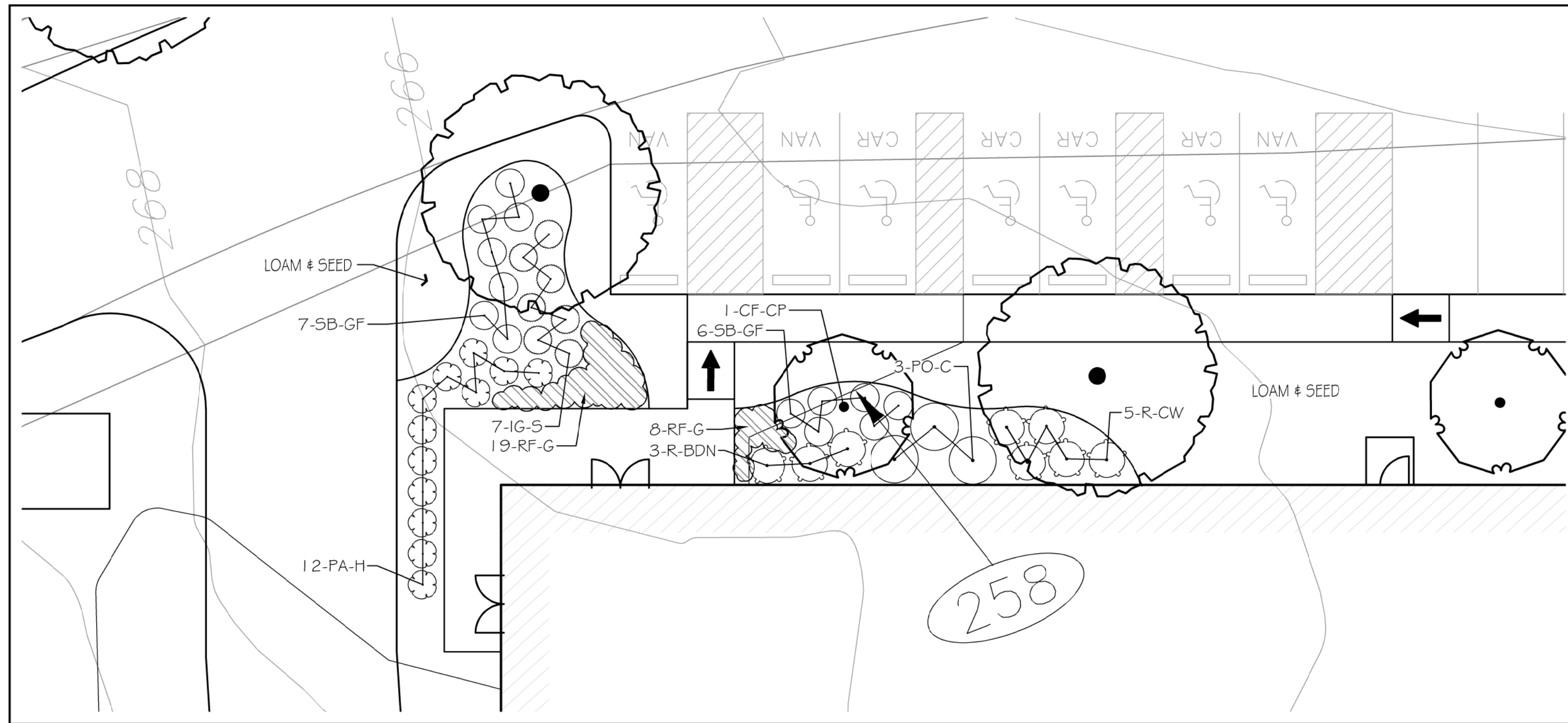


SCALE: 1" = 80'-0"

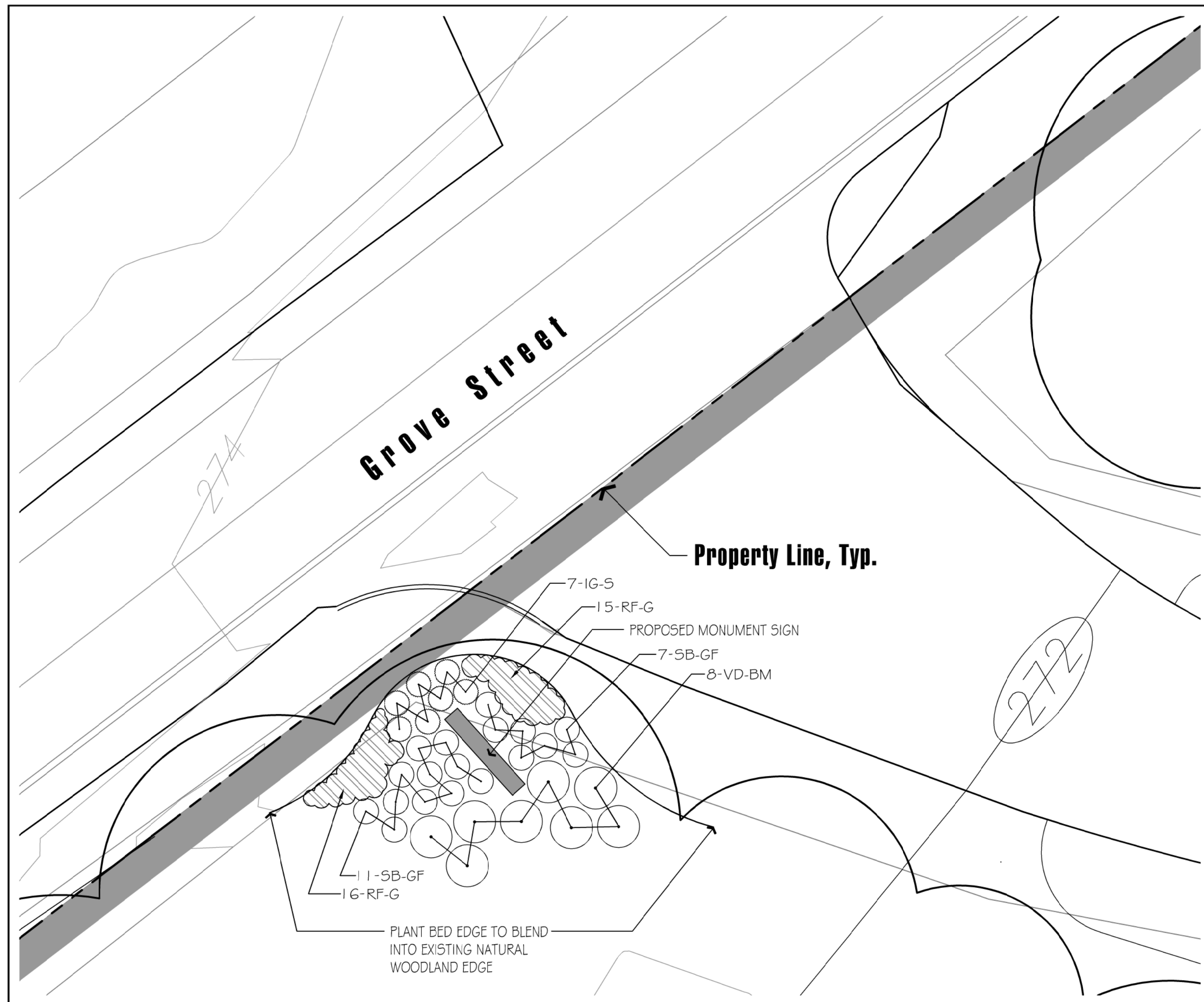
Base plan information provided electronically by Kelly Engineering Group of Braintree, Massachusetts







**1 Building Entrance Enlargement**  
Scale: 1" = 10'-0"



**2 Property Entrance Enlargement**  
Scale: 1" = 10'-0"

**Plant Schedule**

TREES	QTY	BOTANICAL NAME	COMMON NAME	CONT	CAL	PLANT SIZE
AS-GM	6	Acer saccharum 'Green Mountain'	Green Mountain Sugar Maple	B & B	3-3.5" CAL.	
LT	11	Liriodendron tulipifera	Tulip Tree	B & B	3-3.5" CAL.	
NS	6	Nyssa sylvatica	Black Tupelo	B & B	3-3.5" CAL.	
PA-B	12	Platanus acerifolia 'Bloodgood'	Bloodgood London Plane Tree	B & B	3-3.5" CAL.	
EVERGREEN TREES	QTY	BOTANICAL NAME	COMMON NAME	CONT	CAL	PLANT SIZE
PGB	13	Picea glauca	White Spruce	B & B		8-10' HT.
PSS	3	Pinus strobus	White Pine	B & B		8-10' HT.
TP-G	16	Thuja plicata 'Green Giant'	Green Giant Arborvitae	B & B		8-10' HT.
FLOWERING TREES	QTY	BOTANICAL NAME	COMMON NAME	CONT	CAL	PLANT SIZE
CF-CP	8	Cornus florida 'Cherokee Princess'	Cherokee Princess Dogwood	B & B	3-3.5" CAL.	
PS	11	Prunus sargentii	Sargent Cherry	B & B	3-3.5" CAL.	
SHRUBS	QTY	BOTANICAL NAME	COMMON NAME	CONT	CAL	SIZE
IG-S	14	Ilex glabra 'Shamrock'	Shamrock Inkberry	B & B		2-2.5' HT.
PA-H	12	Pennisetum alopecuroides 'Hamel'	Hamel Dwarf Fountain Grass	2 gal		
PO-C	3	Physocarpus opulifolius 'Coppertina'	Coppertina Ninebark	B & B		4-5' HT.
R-BDN	3	Rhododendron 'Boule de Neige'	Boule de Neige Rhododendron	B & B		2-2.5' HT.
R-CW	5	Rhododendron 'Cunningham's White'	Cunningham White Rhododendron	B & B		2-2.5' HT.
SB-GF	31	Spiraea x bumalda 'Goldflame'	Goldflame Spirea	Cont.		18-24" HT.
VD-BM	8	Viburnum dentatum 'Blue Muffin'	Blue Muffin Arrowwood Viburnum	4-5' HT.		
PERENNIALS / GROUND COVERS	QTY	BOTANICAL NAME	COMMON NAME	CONT		
RF-G	58	Rudbeckia fulgida 'Goldsturm'	Goldsturm Coneflower	1 GAL.		

Drawn By: BNL    Checked By: TEM
   
**Town Permit Submittal Plan**
  
 0 10 20 30 feet
   
 SCALE: 1" = 10'
   
 Base plan information provided electronically by Kelly Engineering Group of Braintree, Massachusetts

**Hawk Design, Inc.**  
 Landscape Architecture  
 Land Planning  
 Sagamore, MA  
 508-833-8800  
 info@hawkdesigninc.com

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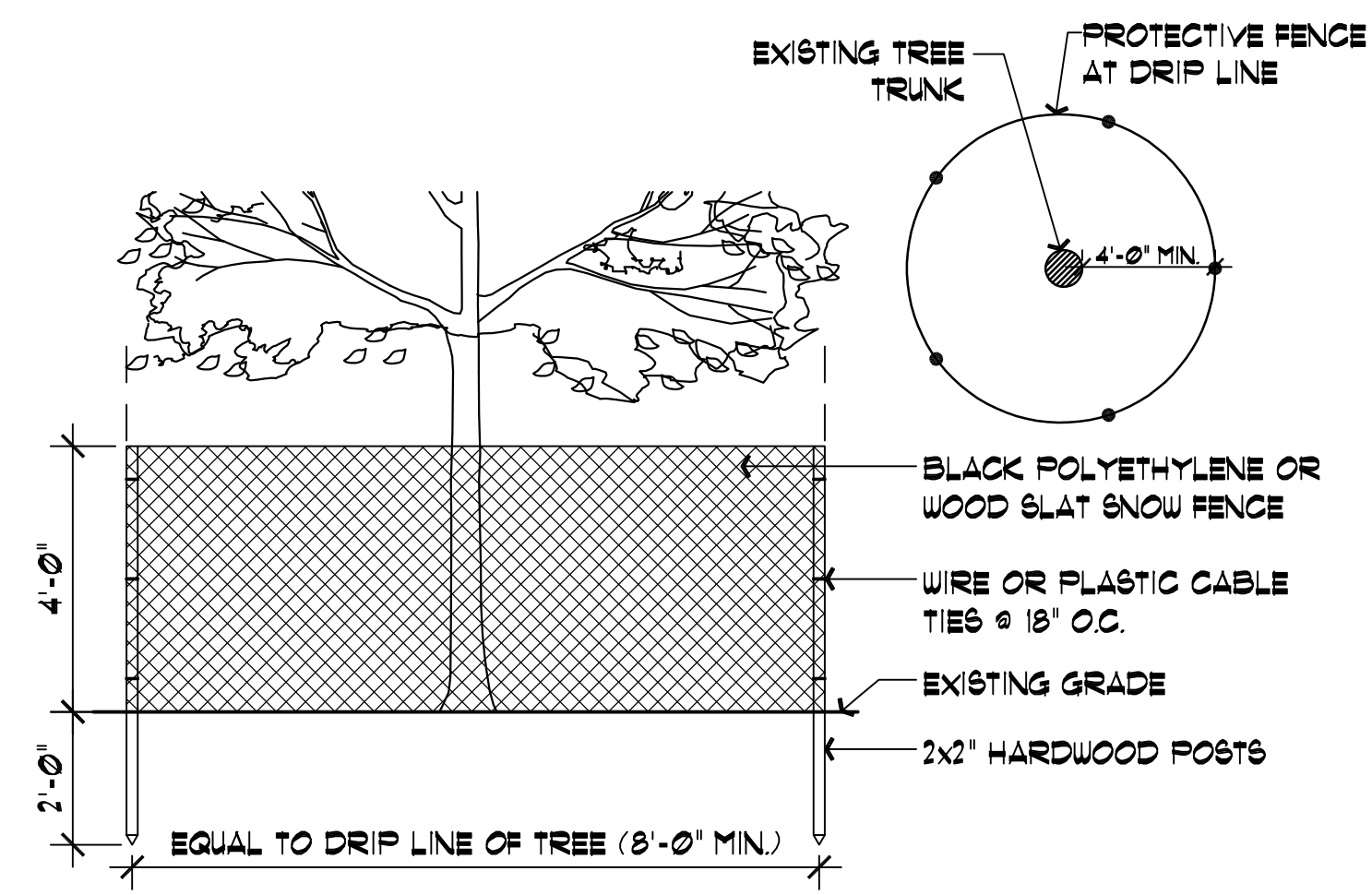
**Date: 2/14/20**  
**Revisions:**  
 Num. Date Description  
 1. 7/28/20 Final Town Submission  
 2. 11/5/20 Revise planting plan as per site plan revisions  
 3. 6/29/21 Revise planting plan as per site plan revisions  
 4. 8/4/21 Revise planting plan as per site plan revisions

**176-210 Grove Street**  
 Franklin, Massachusetts  
 Prepared for: MCP III 176 Grove LLC & MCP III 210 Grove LLC

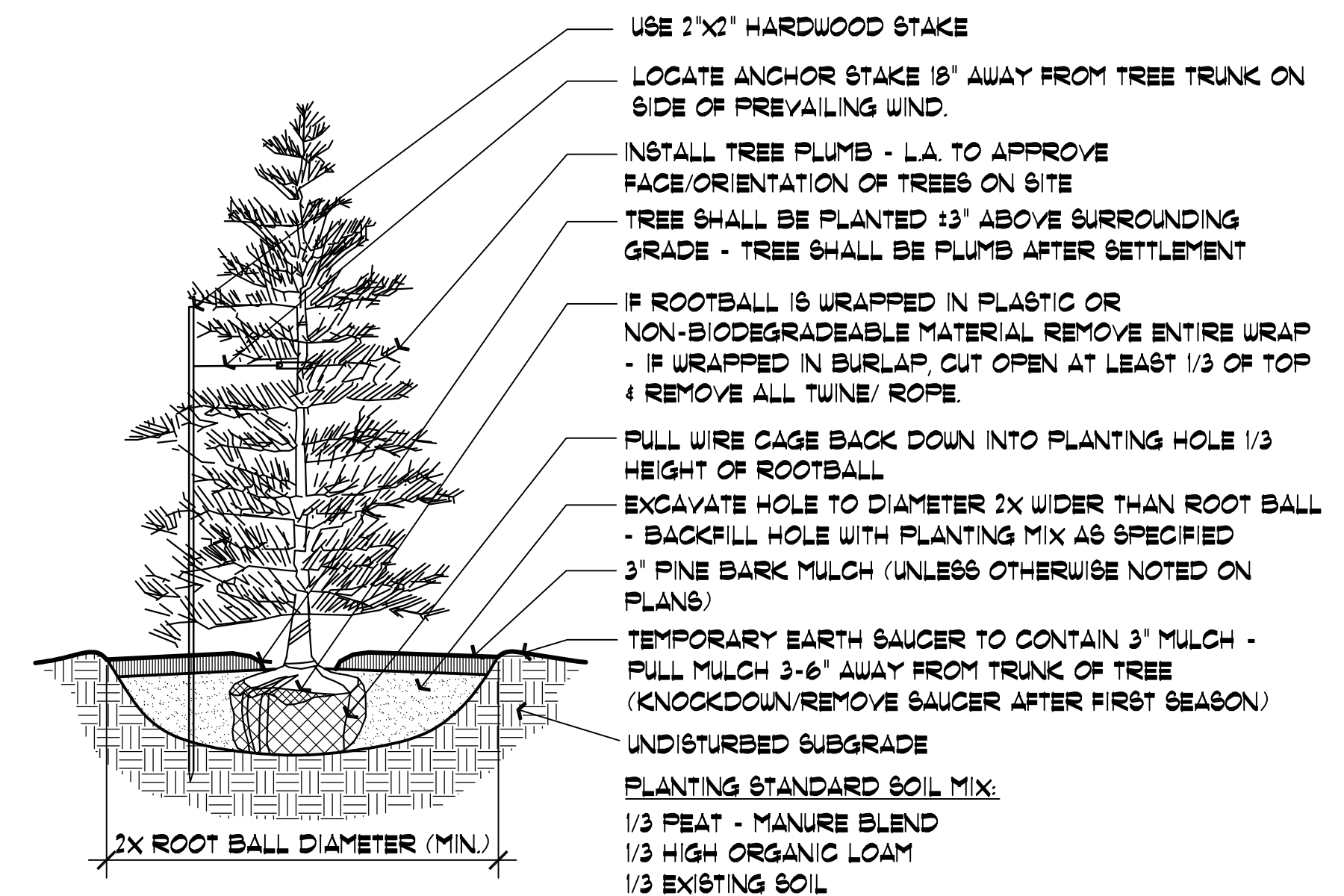
Drawn By: BNL    Checked By: TEM  
**Enlargement Planting Plans & Plant List**  
 Scale: 1" = 10'-0"  
 Sheet: **L3**

**SCHEDULE OF TOPSOILS & ADDITIVES**

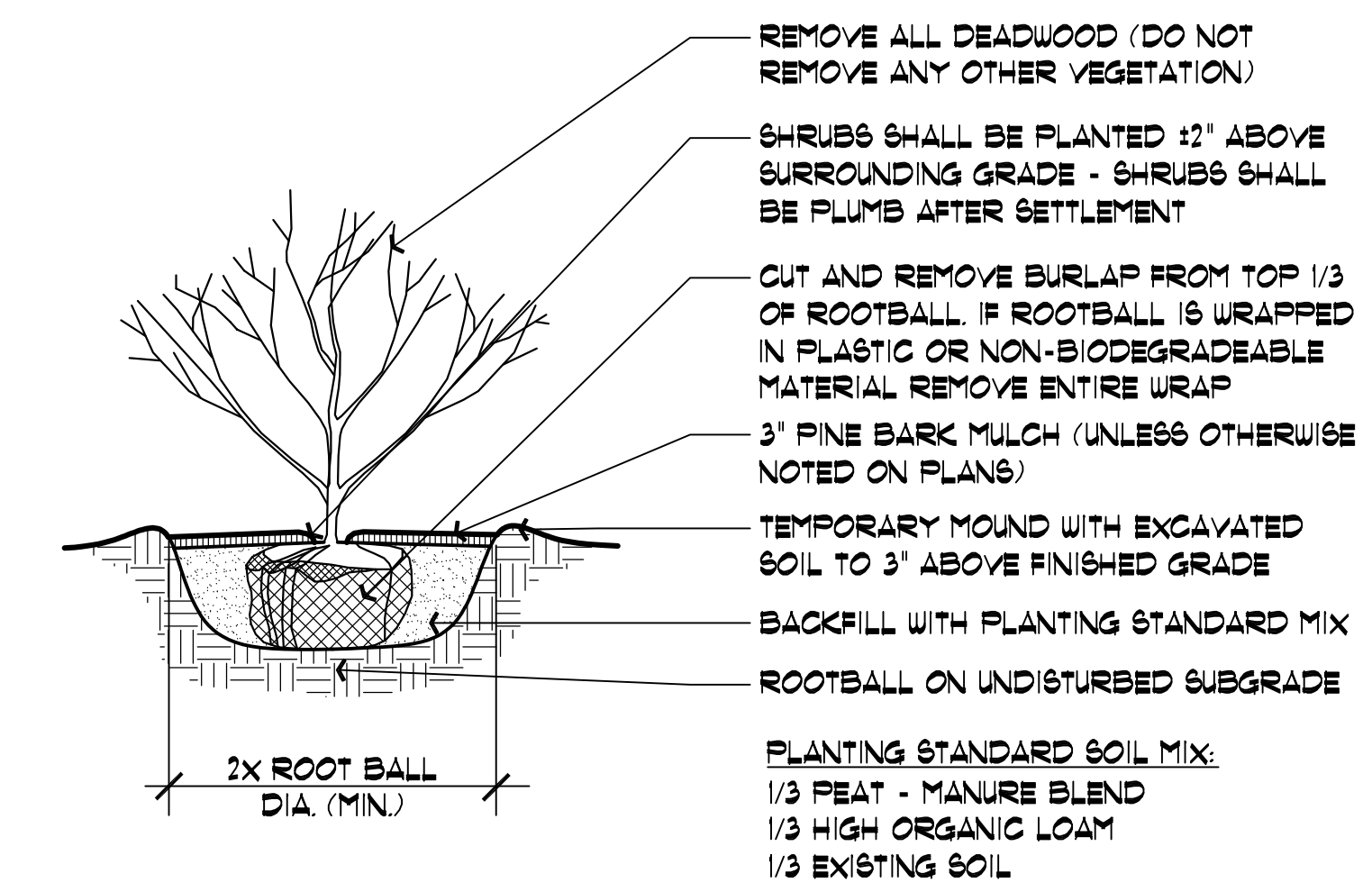
LOCATION	DEPTH	DESCRIPTION
GENERAL PLANTING BEDS	6"	1/3 PEAT - MANURE BLEND 1/3 HIGH ORGANIC LOAM 1/3 EXISTING SOIL
FLOWER BEDS	6"	SCREENED LOAM 1/3 PEAT - MANURE BLEND LIME - PELATIZED OR GROUND (50 LB. PER 100 SF.) GROUND BONE MEAL (50 LB. PER 100 SF.) 10-10-10 ORGANIC FERTILIZER (50 LB. PER 5000 SF.)
LAWNS - SOD & SEED	6"	6" SCREENED LOAM
PITS/TREE WELLS 'STANDARD MIX' FOR BACKFILL	12"	1/3 PEAT - MANURE BLEND SOIL MIX 'A' - 1/3 HIGH ORGANIC LOAM 1/3 EXISTING SOIL
PITS/TREE WELLS 'LITE WEIGHT MIX'	12"	10% LIGHT WEIGHT SHALE SOIL MIX 'B' - 20% SAND 10% COMPOST
PITS/TREE WELLS 'STRUCTURAL MIX'	12"	SOIL MIX 'C' - MIX COMPOSITION TO BE SUPPLIED BY LANDSCAPE ARCHITECT.



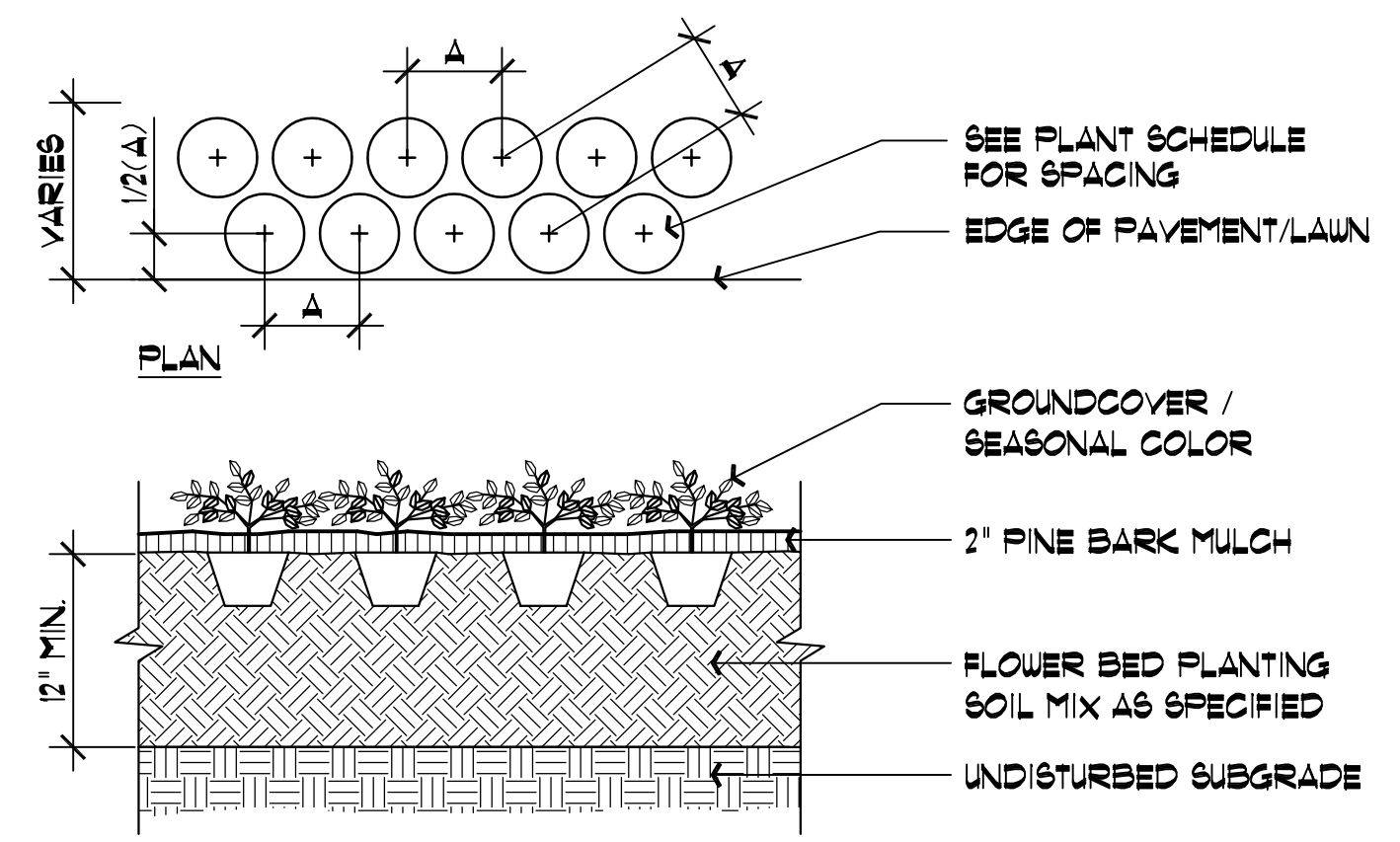
- NOTES:**
- PROTECTIVE FENCE TO REMAIN UNTIL CONSTRUCTION IS COMPLETE.
  - NO TREE SHALL BE REMOVED UNLESS SPECIFICALLY TAGGED FOR REMOVAL BY THE LANDSCAPE ARCHITECT.
  - CONTRACTOR SHALL TAKE CARE NOT TO DAMAGE TREES THAT ARE TO REMAIN.
  - DO NOT NAIL BOARDS OR FENCING TO TREES DURING CONSTRUCTION.
  - ANY EXCAVATING WITHIN DRIFLINE MUST BE APPROVED BY LANDSCAPE ARCHITECT AND MUST BE HAND-DUG. CONTRACTOR SHALL NOT CUT ANY ROOTS AND/OR BRANCHES UNLESS APPROVED BY LANDSCAPE ARCHITECT.
  - ROOTS EXPOSED AND/OR DAMAGED DURING GRADING & CONSTRUCTION OPERATIONS SHALL BE CUT OFF CLEANLY INSIDE THE EXPOSED OR DAMAGED AREA AND TOPSOIL BE PLACED OVER THE ROOTS IMMEDIATELY. FEEDER ROOTS SHALL NOT BE CUT IN AN AREA INSIDE DRIP LINE OF THE TREE BRANCHES.
  - ROOTS GREATER THAN 1" DIAMETER SHALL NOT BE CUT UNLESS OTHERWISE APPROVED BY THE LANDSCAPE ARCHITECT.
  - STOCKPILED MATERIALS OR UNNECESSARY VEHICULAR TRAFFIC SHALL NOT BE ALLOWED OVER ANY TREE ROOT SYSTEM.
  - INSPECT FENCE ON WEEKLY BASIS AND REPAIR DAMAGE IMMEDIATELY.



**3 Conifer Tree Planting**  
Not to Scale

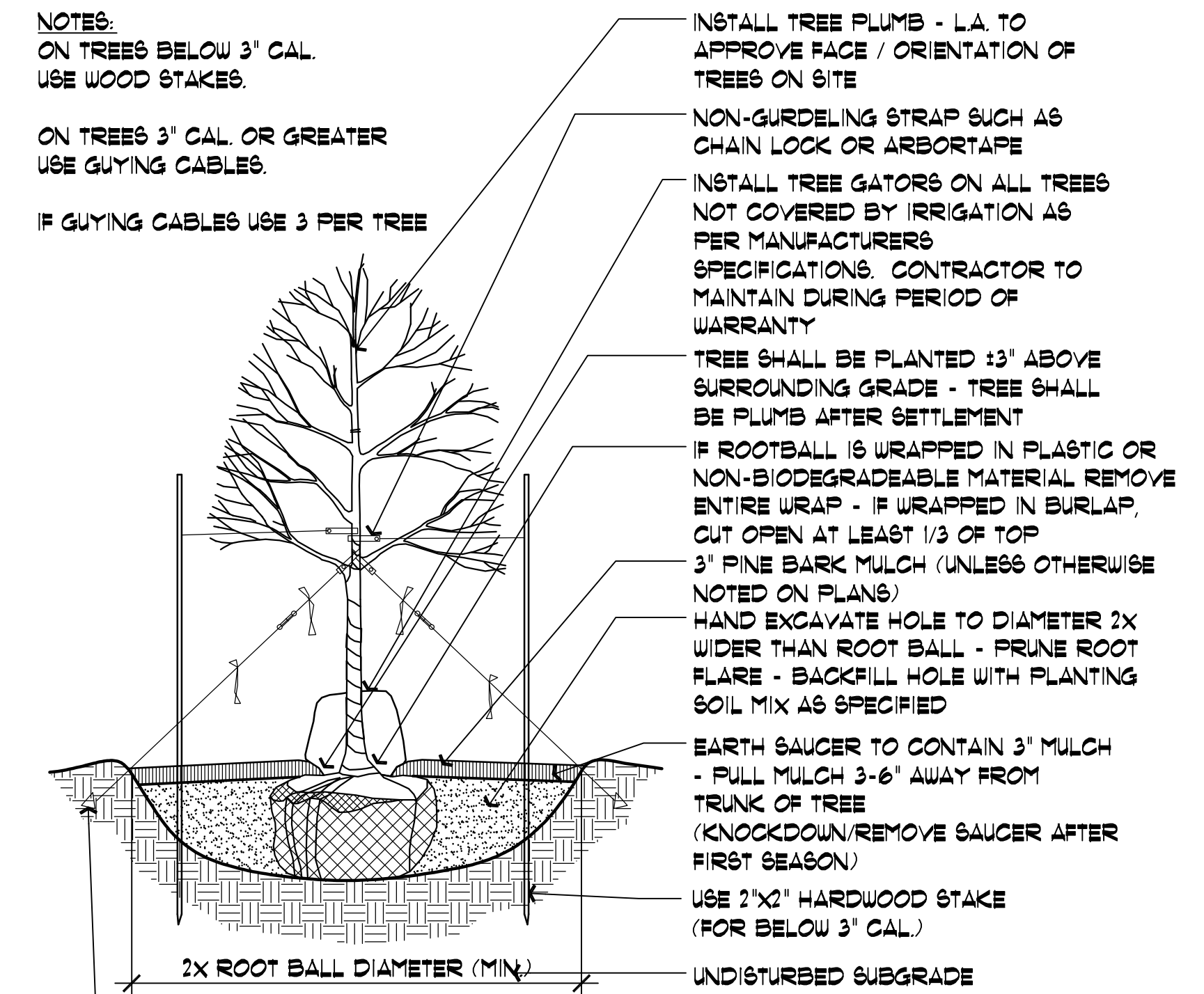


**4 Shrub Planting**  
Not to Scale



**5 Seasonal Color / Perennial / Groundcover Planting**  
Not to Scale

**1 Tree Protection**  
Not to Scale



- NOTES:**
- ON TREES BELOW 3" CAL. USE WOOD STAKES.
- ON TREES 3" CAL OR GREATER USE GUYING CABLES.
- IF GUYING CABLES USE 3 PER TREE
- INSTALL TREE PLUMB - L.A. TO APPROVE FACE / ORIENTATION OF TREES ON SITE
- NON-GIRDLING STRAP SUCH AS CHAIN LOCK OR ARBORTAPE
- INSTALL TREE GATORS ON ALL TREES NOT COVERED BY IRRIGATION AS PER MANUFACTURERS SPECIFICATIONS. CONTRACTOR TO MAINTAIN DURING PERIOD OF WARRANTY
- TREE SHALL BE PLANTED ±3" ABOVE SURROUNDING GRADE - TREE SHALL BE PLUMB AFTER SETTLEMENT
- IF ROOTBALL IS WRAPPED IN PLASTIC OR NON-BIODEGRADABLE MATERIAL REMOVE ENTIRE WRAP - IF WRAPPED IN BURLAP, CUT OPEN AT LEAST 1/3 OF TOP
- 3" PINE BARK MULCH (UNLESS OTHERWISE NOTED ON PLANS)
- HAND EXCAVATE HOLE TO DIAMETER 2X WIDER THAN ROOT BALL - PRUNE ROOT FLARE - BACKFILL HOLE WITH PLANTING SOIL MIX AS SPECIFIED
- EARTH SAUCER TO CONTAIN 3" MULCH - PULL MULCH 3-6' AWAY FROM TRUNK OF TREE (KNOCKDOWN/REMOVE SAUCER AFTER FIRST SEASON)
- USE 2"x2" HARDWOOD STAKE (FOR BELOW 3" CAL.)
- UNDISTURBED SUBGRADE
- NOTE:  
FOR ALL FALL PLANTING, WRAP TRUNK AS SPECIFIED TO 2ND LOWEST BRANCH - REMOVE THE FOLLOWING SPRING
- ALL TREES SHALL BE FLOODED TWICE DURING THE FIRST 24 HOURS AFTER PLANTING
- USE DUCKBILL TREE ANCHOR FOR 3" CAL OR GREATER
- PLANTING SOIL MIX:  
1/3 PEAT - BLEND MANURE  
1/3 HIGH ORGANIC LOAM  
1/3 EX SOIL

**2 Deciduous Tree Planting**  
Not to Scale



## 1.0 GENERAL LANDSCAPE NOTES

### 1.1) CONTRACTOR REQUIREMENTS:

A) ALL WORK SHALL COMPLY WITH APPLICABLE CODES AND REGULATIONS FROM ALL FEDERAL, STATE AND LOCAL AUTHORITIES.

B) THE CONTRACTOR SHALL ARRANGE FOR AND OBTAIN ALL PERMITS AND LICENSES REQUIRED FOR THE COMPLETE WORK SPECIFIED HEREIN AND SHOWN ON ALL THE DRAWINGS. THE CONTRACTOR SHALL PAY FOR ANY FEES NOT WAIVED.

### 1.2) UTILITIES:

A) LANDSCAPE CONTRACTOR IS REQUIRED TO CONTACT THE RELEVANT UTILITY COMPANIES PRIOR TO DOING ANY EXCAVATION ON THE SITE. IF ANY WORK IS TO BE DONE AROUND UNDERGROUND UTILITIES, THE APPROPRIATE AUTHORITY OF THAT UTILITY MUST BE NOTIFIED OF THE IMPENDING WORK.

B) UTILITIES SHALL BE LOCATED AND MARKED PRIOR TO ANY INSTALLATION. ADJUSTMENTS MAY BE NECESSARY IN THE FIELD TO ACCOMMODATE UTILITY LOCATIONS. REPORT ANY CONFLICTS TO THE LANDSCAPE ARCHITECT PRIOR TO INSTALLATION.

C) THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGES DONE TO EXISTING UTILITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COST OF SATISFACTORY REPAIR OF ALL DAMAGE IN KIND RESULTING FROM THEIR FAILURE TO COMPLY.

1.3) PROTECTION OF EXISTING WORK: IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PERFORM ALL WORK IN A MANNER THAT PROTECTS WORK COMPLETED BY OTHERS, SUCH AS CURBS, UTILITIES, STORM DRAINAGE, FENCES, DRIVEWAY APRONS, DRIVES, VEGETATION, ETC. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COST OF SATISFACTORY REPAIR OF ALL DAMAGE IN KIND RESULTING FROM THEIR FAILURE TO COMPLY.

1.4) QUANTITIES: A COMPLETE LIST OF PLANTS INCLUDING A SCHEDULE OF QUANTITIES, SIZES, TYPES, AND NAMES IS INCLUDED IN THIS SET OF DRAWINGS. IN THE EVENT OF DISCREPANCIES BETWEEN QUANTITIES OF PLANT IN THE PLANT LIST AND THE QUANTITIES SHOWN ON THE DRAWINGS, THE PLAN SHALL GOVERN. THE LANDSCAPE CONTRACTOR SHALL NOTIFY THE LANDSCAPE ARCHITECT OF UNLABELED PLANTS IN PLAN FOR CLARIFICATION. THE LANDSCAPE ARCHITECT SHALL BE ALERTED BY THE CONTRACTOR OF ANY DISCREPANCIES PRIOR TO FINAL BID NEGOTIATION.

1.5) APPLICABLE PLANT MATERIALS STANDARDS: ALL PLANT MATERIALS ARE TO COMPLY WITH THE LATEST EDITION OF THE AMERICAN STANDARD FOR NURSERY STOCK, AS PUBLISHED BY THE AMERICAN ASSOCIATION OF NURSEYMEN. PLANTING METHODS WILL BE IN ACCORDANCE WITH SITE-SPECIFIC REQUIREMENTS.

1.6) PLANT HARDINESS: ALL TREES AND SHRUBS SHALL BE NURSERY GROWN WITHIN A USDA PLANT HARDINESS ZONE, WHICH IS THE SAME AS, OR COLDER THAN, THE ZONE IN WHICH THE PROJECT IS LOCATED.

1.7) PLANTING SEASONS: PLANTING SHALL ONLY OCCUR DURING SPECIFIED SEASONS. SPRING SEASON SHALL BE FROM MARCH 1 TO JUNE 15. FALL PLANTING SEASON SHALL BE FROM SEPTEMBER 15 THROUGH NOVEMBER 15. NO PLANTING SHALL OCCUR WHEN THE GROUND IS FROZEN.

1.8) PLANT SUBSTITUTIONS: NO SUBSTITUTIONS OF PRODUCTS, PLANT TYPES OR SIZES SHALL BE MADE WITHOUT THE WRITTEN APPROVAL OF THE LANDSCAPE ARCHITECT. REQUESTS FOR SUBSTITUTION SHALL BE IN WRITING, AND SHALL STATE THE REASON FOR THE SUBSTITUTION REQUEST, THE SUGGESTED ALTERNATIVE AND THE CHANGES IN COST. REQUESTS FOR SUBSTITUTION IN PLANT MATERIALS SHALL STATE THE NAMES OF NURSERIES THAT HAVE BEEN UNABLE TO SUPPLY THE ORIGINALLY SPECIFIED MATERIAL.

1.9) THE LANDSCAPE ARCHITECT SHALL RESERVE THE RIGHT TO INSPECT ALL PLANT MATERIALS AT THE NURSERY, UPON SITE DELIVERY AND DURING INSTALLATION TO INSURE SPECIFICATIONS AND PROCEDURES ARE ADHERED TO.

1.10) MINIMUM SIZES: ALL PLANTS 3' OR GREATER IN HEIGHT OR SPREAD SHALL BE BALLED AND BURLAPPED. SIZES SPECIFIED IN THE PLANT LIST ARE MINIMUMS ON WHICH THE PLANTS ARE TO BE JUDGED.

1.11) DEAD PLANTS: DEAD PLANTS ARE TO BE REMOVED FROM THE SITE IMMEDIATELY, AND REPLACED WITH THE SAME PLANT & SIZE REGARDLESS OF SEASON, WEEKLY FROM THE JOB BY THE CONTRACTOR. THE CONTRACTOR SHALL MAINTAIN AN UPDATED COMPREHENSIVE LIST OF ALL DEAD MATERIALS REMOVED AND PRESENT A COPY OF THE LIST TO THE OWNER AND LANDSCAPE ARCHITECT AT THE END OF EVERY MONTH DURING THE CONTRACT PERIOD.

1.12) PLANT MATERIAL REMOVAL: NO EXISTING TREES SHALL BE REMOVED WITHOUT THE WRITTEN AUTHORIZATION FROM THE LANDSCAPE ARCHITECT EXCEPT WHERE NOTED ON THE PLANS. CONTRACTORS WHO REMOVE EXISTING TREES WITHOUT WRITTEN APPROVAL WILL BE REQUIRED TO MAKE REMEDIES DETERMINED BY THE GOVERNING URBAN FORESTER OR EQUIVALENT AUTHORITY. NO GRUBBING SHALL OCCUR WITHIN EXISTING TREE AREAS UNLESS SPECIFICALLY NOTED ON THE PLANS.

1.13) ALL DISTURBED AREAS NOT TO RECEIVE PLANT MATERIALS ARE TO BE LOAMED AND SEEDED AND BLENDED INTO EXISTING GRADE AND CONDITIONS. SEE SECTION 4.0.

1.14) LEDGE BOULDERS: IF DURING SITE EXCAVATION, LEDGE BOULDERS ARE AVAILABLE, THESE ARE TO BE STOCKPILED FOR USE IN EARTH BERMS IF APPLICABLE, WITH HAWK DESIGN, INC. PRIOR TO INSTALLATION. THIS ITEM WILL ONLY APPLY IF SO SPECIFIED ON DRAWINGS. BOULDER SIZES TO BE STOCKPILED WILL RANGE FROM TWO TO FIVE FEET IN DIAMETER. SEE APPROPRIATE DETAIL FOR INSTALLATION COORDINATION.

1.15) SLEEVES: LANDSCAPE OR SITE CONTRACTOR SHALL PLACE INDIVIDUAL SLEEVES FOR LIGHTING AND IRRIGATION UNDER ANY PROPOSED WALKWAY OR VEHICULAR ROADWAY PRIOR TO INSTALLATION. COORDINATE SLEEVE LOCATIONS WITH IRRIGATION AND LIGHTING CONTRACTORS PRIOR TO INSTALLATION.

1.16) DO NOT CLOSE OR OBSTRUCT ANY STREET, SIDEWALK, ALLEY OR PASSAGEWAY WITHOUT PRIOR NOTIFICATION AND PERMISSION. CONDUCT OPERATIONS AS TO INTERFERE AS LITTLE AS POSSIBLE WITH THE USE ORDINARILY MADE OF ROADS, DRIVEWAYS, ALLEYS, SIDEWALKS OR OTHER FACILITIES NEAR ENOUGH TO THE WORK TO BE EFFECTED THEREBY.

## 2.0 PLANTING MATERIALS

2.1) PLANTING MATERIAL ITEMS IN SECTION 2.0 ARE TO BE INCORPORATED DURING PLANT INSTALLATION UNLESS OTHERWISE DEEMED UNNECESSARY IN ACCORDANCE WITH SOIL TEST RECOMMENDATIONS. SEE SECTION 3.1.

MULCH - MULCH WILL BE DOUBLE-SHREDDED PINE BARK MULCH.  
- TREES AND SHRUBS SHALL RECEIVE AN EVEN 3" MULCH LAYER.  
- GROUNDCOVERS, PERENNIALS AND ANNUALS SHALL RECEIVE AN EVEN 2" MULCH LAYER.

MANURE - TO BE WELL ROTTED, ODORLESS, UNLEACHED COW MANURE, CONTAINING NOT MORE THAN 15% BEDDED MATERIALS SUCH AS STRAW, WOOD CHIPS OR SHAVINGS, AGED NOT LESS THAN TWO YEARS OLD.

HERBICIDE - A PRE-EMERGENCE WEED KILLER IS TO BE USED ON ALL LAWN AND PLANTING AREAS PRIOR TO INSTALLATION AS PER MANUFACTURER'S SPECIFICATIONS. \*HERBICIDES ARE NOT TO BE APPLIED IN RESTRICTED CONSERVATION AREAS.

FERTILIZER - ALL TREES AND SHRUBS TO HAVE SLOW RELEASE PACKET OR PELLET PLACED INTO THE PLANT PIT WITH A MINIMUM ANALYSIS OF 10-10-10. ALL GROUNDCOVERS, PERENNIALS AND ANNUALS ARE TO RECEIVE A BROADCAST APPLICATION OF A 14-14-14 FERTILIZER AT 3 LB PER 100 SQ. FT. APPLY AS PER MANUFACTURER'S INSTRUCTIONS. \*FERTILIZERS ARE NOT TO BE APPLIED IN RESTRICTED CONSERVATION AREAS.

TOPSOIL - ACCEPTABLE TOPSOIL SHALL BE FERTILE, FRIABLE NATURAL LOAM, UNIFORM IN COMPOSITION, FREE OF STONES, LIMBS, PLANTS AND THEIR ROOTS, DEBRIS AND OTHER EXTRANEOUS MATTER OVER ONE INCH IN DIAMETER. THE SOIL SHALL BE CAPABLE OF SUSTAINED PLANT GROWTH AND HAVE A 5% MINIMUM ORGANIC CONTENT. IN SITUATIONS WHICH REQUIRE A CUSTOM TOPSOIL OR STRUCTURAL SOIL, THE SOIL MIXTURE SPECIFICATION WILL BE PROVIDED BY THE LANDSCAPE ARCHITECT.

SOIL AMENDMENTS: APPLY AS NECESSARY ACCORDING TO SOIL TEST RESULTS, AS PER MANUFACTURER'S SPECIFICATIONS.

ANTI-DEBRICANT - 'WILT PRUF' NCF OR EQUAL APPLY AS PER MANUFACTURER'S SPECIFICATIONS.

## 3.0 INSTALLATION

3.1) SOIL TESTING: LANDSCAPE CONTRACTOR SHALL PROVIDE A CERTIFIED SOIL ANALYSIS PRIOR TO ANY PLANT INSTALLATION TO DETERMINE ANY NECESSARY AMENDMENTS TO THE EXISTING SOIL CONDITIONS FOR SEEDING AND PLANTING. THE ANALYSIS WILL ALSO BE REQUIRED FOR ESTABLISHING THE FERTILIZER PROGRAM REQUIRED. COORDINATE RESULTS AND PROVIDE WRITTEN RECOMMENDATIONS TO HAWK DESIGN, INC. 15 DAYS PRIOR TO INSTALLATION.

3.2) ALL PLANTS SHALL BE TRANSPORTED TO THE SITE IN COVERED TRUCKS, TARPULIN COVERS SHALL BE UTILIZED TO PREVENT WIND DAMAGE OF LOAD.

3.3) DELIVER PLANT MATERIALS IMMEDIATELY PRIOR TO PLACEMENT. KEEP PLANT MATERIALS MOIST. DO NOT STORE PLANT MATERIAL ON PAVED AREAS. ROOTS OR BALLS SHALL BE PROTECTED FROM THE SUN OR DRYING WINDS, AS REQUIRED BY TEMPERATURE OR WIND CONDITIONS. APPLY ANTI-DEBRICANT EMULSION TO PREVENT DRYING OUT OF PLANT MATERIALS.

3.4) CONDITIONS FOR PLANT REJECTION:  
A) REJECT PLANTS WHEN BALL OF EARTH SURROUNDING ROOTS HAS BEEN CRACKED OR BROKEN PREPARATORY TO OR DURING THE PROCESS OF PLANTING.

B) WHEN BURLAP, STAVES AND ROPES REQUIRED IN CONNECTION WITH TRANSPORTING HAVE BEEN DISPLACED PRIOR TO ACCEPTANCE.

C) WIND DAMAGED PLANT MATERIAL FROM POOR TARPULIN COVER PROCEDURES ARE SUBJECT TO REJECTION.

3.5) ALL PLANT MATERIAL WHICH CANNOT BE PLANTED IMMEDIATELY ON DELIVERY, SHALL BE SET ON THE GROUND IN A SHADED LOCATION AND SHALL BE TEMPORARILY PROTECTED WITH SOIL OR OTHER ACCEPTABLE MATERIAL. TEMPORARY WATERING OR IRRIGATION SHALL BE INCORPORATED AND REGULARLY CONDUCTED ON PLANTINGS IN HOLD AREAS.

3.6) IN CASE OF CONFLICTS DURING CONSTRUCTION WITH UTILITIES, ROCK MATERIALS, TREE ROOTS OR OTHER OBSTRUCTIONS FOR THE EXCAVATION OF SHRUB BEDS AND TREE PITS, CONTACT LANDSCAPE ARCHITECT FOR APPROVED ALTERNATE LOCATIONS.

3.7) SOIL PERMEABILITY: TEST DRAINAGE OF PLANTING BEDS AND PITS BY FILLING WITH WATER TEST IN SUCCESSION, CONDITIONS PERMITTING THE RETENTION OF WATER FOR MORE THAN 24 HOURS SHALL BE BROUGHT TO THE ATTENTION OF THE LANDSCAPE ARCHITECT.

3.8) SOIL EXCAVATIONS:  
A) EXCAVATE TREE PITS AND SHRUB BEDS TO DEPTHS REQUIRED BY PLANTING DETAILS. ALL PITS SHALL BE CIRCULAR IN OUTLINE, EXCEPT FOR WHOLE BEDS. SEE APPROPRIATE PLANTING DETAILS.

B) SOIL EXCAVATIONS FOR BALLED & BURLAP AND CONTAINER PLANTINGS MUST BE NO LESS THAN 2X ROOT BALL DIAMETER. SEE PLANTING DETAILS. IF QUESTIONABLE SUBSURFACE SOIL CONDITIONS EXIST SUCH AS POOR DRAINAGE CONDITIONS, RUBBLE OR OBSTRUCTIONS, REPORT TO THE LANDSCAPE ARCHITECT AND CONSTRUCTION MANAGER BEFORE PLANTING.

### 3.9) GRADING:

A) VERIFY GRADES PRIOR TO PLANTING, THE CONTRACTOR SHALL VERIFY THAT CONSTRUCTED GRADES ARE AS INDICATED ON PLANS. THE CONTRACTOR SHALL NOTIFY THE LANDSCAPE ARCHITECT IF ADJUSTMENTS TO PLANT PLACEMENT MAY BE REQUIRED DUE TO FIELD CONDITIONS AND FINAL GRADING.

B) POSITIVE DRAINAGE SHALL BE MAINTAINED AWAY FROM AND AROUND BUILDINGS (REFER TO ENGINEER'S GRADING PLANS). REPORT ANY CONFLICTS TO HAWK DESIGN, INC. PRIOR TO INSTALLATION.

C) FINISH GRADE OF PLANTINGS SHALL BE EQUIVALENT TO FORMER EXISTING GRADE OF PLANT IN THE NURSERY.

### 3.10) BALLED AND BURLAPED (B&B) MATERIALS:

A) CUT WIRE BASKETS ONCE IN THE PLANT PIT AND PEEL WIRE BACK.

B) TAGS AND TWINE ARE TO BE REMOVED AND BURLAP IS TO BE ROLLED BACK ONE-THIRD ON ALL B&B PLANT MATERIAL. ANY SYNTHETIC BURLAP SHALL BE COMPLETELY REMOVED FROM ANY PLANT MATERIAL.

## 3.0 INSTALLATION CONT.

3.11) CONTAINER GROWN STOCK: SHALL BE REMOVED FROM CONTAINER BY CUTTING CONTAINER AWAY TO AVOID ROOT DAMAGE TO PLANT ROOT SYSTEM. IF PLANT ROOT IS BOUND, SLICE ROOT BALLS APPROXIMATELY 2" DEEP WITH KNIFE OR SHARP SPADE. (2) DO NOT USE MUDDY OR FROZEN SOIL TO BACKFILL PLANTINGS.

3.13) WATERING: THOROUGHLY WATER UNTIL SOIL IS SATURATED AROUND ALL TREES AND SHRUBS AFTER PLANTING AND THROUGHOUT THE TIME PERIOD UNTIL FINAL ACCEPTANCE FROM CLIENT. DURING DRY CONDITIONS, WATER AS REQUIRED TO MAINTAIN PLANTS IN A WILT-FREE CONDITION.

3.14) PRUNING: TREES SHALL BE PRUNED TO BALANCE TOP GROWTH WITH ROOTS AND TO PRESERVE THEIR NATURAL CHARACTER AND TYPICAL GROWTH HABIT. PRUNING SHALL BE RESTRICTED IN GENERAL TO THE SECONDARY BRANCHES AND SUCKER GROWTH. ALL CUTS TO BE FLUSH WITH TRUNK. DO NOT CUT A LEADER. THE LANDSCAPE ARCHITECT WILL REJECT ALL PLANTS DISFIGURED BY POOR PRUNING PRACTICES. ALL PRUNING CUTS SHALL REMAIN UNPAINTED.

3.15) STAKING AND GUYING: ALL TREES TO BE STAKED AND GUYED WITHIN 48 HOURS OF PLANTING. METHODS AND MATERIALS FOR STAKING AND GUYING ARE ILLUSTRATED IN INDIVIDUAL PLANTING DETAILS. NEATLY FLAG ALL GUY WIRES WITH ROT RESISTANCE YELLOW TREE MARKING RIBBON.

3.16) STAKE OUT PLANT LOCATIONS: PRIOR TO PLANTING THE CONTRACTOR SHALL LAYOUT THE EXTENT OF THE PLANT BEDS AND PROPOSED LOCATIONS FOR B&B PLANTS FOR REVIEW BY THE OWNER AND LANDSCAPE ARCHITECT.

### 3.17) PLANTING FIELD ADJUSTMENTS:

A) THE CONTRACTOR IS TO SLIGHTLY ADJUST PLANT LOCATIONS IN THE FIELD AS NECESSARY TO BE CLEAR OF DRAINAGE SWALES AND UTILITIES.

B) LARGE GROWING PLANTS ARE NOT TO BE PLANTED IN FRONT OF WINDOWS OR UNDER BUILDING OVERHANGS. NOTIFY THE LANDSCAPE ARCHITECT OF DISCREPANCIES IN PLANTING PLAN VS. FIELD CONDITIONS.

C) SHRUBS PLANTED NEAR HVAC UNITS ARE TO BE LOCATED SO THAT SHRUBS AT MATURITY WILL MAINTAIN ONE FOOT (1') AIRSPACE BETWEEN THE UNIT AND THE PLANT. ANY PLANTING SHOWN ADJACENT TO CONDENSER UNITS SHALL BE PLANTED TO SCREEN THE UNITS. SHOULD THE CONDENSER UNITS BE INSTALLED IN LOCATIONS DIFFERENT FROM THOSE SHOWN ON THE PLAN, IT WILL BE THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE LANDSCAPE ARCHITECT AND INSTALL THE MATERIAL AROUND THE CONDENSERS AND ADJUST THE OTHER PLANTING ACCORDINGLY.

3.18) PLANT BED EDGES/LINES: GROUPS OF SHRUBS, PERENNIALS AND GROUNDCOVERS SHALL BE PLACED IN A CONTINUOUS MULCH BED WITH SMOOTH CONTINUOUS LINES. ALL MULCHED BED EDGES SHALL BE CURVILINEAR IN SHAPE, FOLLOWING THE CONTOUR OF THE PLANT MASS. TREES LOCATED WITHIN 4 FEET OF PLANT BEDS SHALL SHARE THE SAME MULCH BEDS.

3.19) ADA - THE AMERICAN WITH DISABILITIES ACT STANDARDS REQUIRE THAT A 1 FOOT VERTICAL CLEARANCE BE MAINTAINED FROM TREE BRANCHES TO FINISHED GRADE WHERE PEDESTRIAN SIDEWALKS AND/OR TRAILS ARE LOCATED. THE CONTRACTOR IS TO ADJUST TREE PLANTINGS IN FIELD TO SLIGHTLY MINIMIZE BRANCH OVERHANG AND COMPLY WITH THE ADA ACT.

3.20) TREE SPACING MINIMUMS: TREES SHALL BE LOCATED A MINIMUM OF 4 FEET FROM WALLS AND WALKS WITHIN THE PROJECT. IF A CONFLICT ARISE BETWEEN ACTUAL SIZE OF AREA AND PLANS, THE CONTRACTOR SHALL CONTACT THE LANDSCAPE ARCHITECT FOR RESOLUTION. FAILURE TO MAKE SUCH CONFLICTS KNOWN TO LANDSCAPE ARCHITECT WILL RESULT IN CONTRACTOR'S LIABILITY TO RELOCATE MATERIALS.

## 4.0 SEEDING AND SODDING

4.1) SEEDING OF LAWN AREAS: GRASS SEED APPLICATION SHALL BE SPREAD AT THE RATE OF 5 LBS PER 1000 SQUARE FEET. SEEDING SHALL BE ACCOMPLISHED BY MEANS OF A HYDRO-SEEDING PROCESS.

4.2) WATERING OF SEEDED AREAS: 24 HOURS AFTER HYDRO SEEDING, THE CONTRACTOR SHALL WATER THE SEEDED AREA LIGHTLY AND SUFFICIENTLY TO A DEPTH OF TWO INCHES (2") 2 TIMES A DAY (BETWEEN THE HOURS OF 1 PM AND 1 AM), UNTIL THE SEEDS ARE ESTABLISHED.

4.3) SEEDED AREA PROTECTION: THE CONTRACTOR SHALL ERECT SUITABLE SIGNS AND BARRICADES NOTIFYING THE PUBLIC TO KEEP OFF THE SEEDED AREAS UNTIL WELL ESTABLISHED. ANY TRAFFIC DAMAGE AND VANDALISM THAT MAY OCCUR PRIOR TO FINAL ACCEPTANCE OF THE WORK SHALL BE REPAIRED AND RESEEDED AT THE OWNER'S EXPENSE. ANY DISTURBED OR DAMAGED BY THE CONTRACTOR SHALL BE REPAIRED IN ACCORDANCE WITH THE SPECIFICATIONS AT THE CONTRACTOR'S EXPENSE.

4.4) LAYING OF SOD: A KENTUCKY BLUEGRASS SOD MIX - BY LOCAL SOURCE AS SELECTED BY CONTRACTOR, SHALL BE FRESHLY CUT FROM THE SAME FIELD WITH 1/2 - 3/4 INCHES OF SOIL. SOD SHALL BE LAID IMMEDIATELY WITH ANY STORED SOD BEING UNROLLED GRASS SIDE UP AND KEPT WATERED. LAY COURSES TIGHTLY TOGETHER WITHOUT OVERLAPPING WITH THE JOINTS STAGGERED. AFTER SODDING IS COMPLETE, ROLL LIGHTLY. THE CONTRACTOR SHALL WATER THE SODDED AREAS TO A DEPTH OF AT LEAST SIX INCHES AFTER THE SODDING PROCESS. OWNER SHALL THEN BE RESPONSIBLE FOR WATERING. THE FREQUENCY SHALL BE DETERMINED BY RAIN FALL AND WINDS WITH THE UPPER TWO OR THREE INCHES OF SOIL NOT DRYING OUT MARKEDLY.

4.5) SODDED AREA: INSPECTION AND ACCEPTANCE: FOUR WEEKS AFTER CONTRACTOR COMPLETES INSTALLATION, LANDSCAPE ARCHITECT SHALL INSPECT THE LAWN TO DETERMINE THE ACCEPTABILITY OF THE INSTALLATION. SODDED AREAS FAILING TO SHOW ADEQUATE ROOTING INTO THE SUBSOIL, OVERLAPPING, COURSE SEPARATION, UNEVENNESS OF THE SURFACE, UNEVEN COURSE COLOR AND EXCESSIVE BROADLEAF WEED CONTENT SHALL BE REPLACED. THE COST SHALL BE BORNE BY THE CONTRACTOR EXCEPT WHERE VANDALISM OR NEGLIGENCE ON THE PART OF OTHERS NOT UNDER THE CONTRACTOR'S CONTROL, HAS RESULTED IN DAMAGE.

4.6) FINAL APPROVAL: SEEDED AND SODDED AREAS WILL RECEIVE FINAL APPROVAL IF COVERAGE IS FULL AND CONSISTENT, FREE OF BARE SPOTS AND WEED FREE. WHEN GRASS IS CUT AT 2" HEIGHT NO SOIL SHOULD BE VISIBLE. SOD AREAS MUST HAVE RECEIVED A MINIMUM OF TWO MOWINGS. AREAS SODDED AFTER NOVEMBER 1ST WILL BE ACCEPTED THE FOLLOWING SPRING - ONE MONTH AFTER THE START OF THE GROWING SEASON, IF THE ABOVE CRITERIA HAS BEEN MET.

## 5.0 MAINTENANCE

5.1) MAINTENANCE DURING INSTALLATION: MAINTENANCE OPERATIONS SHALL BEGIN IMMEDIATELY AFTER EACH PLANT IS PLANTED AND SHALL CONTINUE AS REQUIRED UNTIL FINAL ACCEPTANCE AND THEN FOR THE GUARANTEE PERIOD. PLANTS SHALL BE KEPT IN A HEALTHY, GROWING CONDITION BY WATERING, PRUNING, SPRAYING, WEEDING AND ANY OTHER NECESSARY OPERATIONS OF MAINTENANCE. PLANT SAUCERS AND BEDS SHALL BE KEPT FREE OF WEEDS, GRASS AND OTHER UNDESIRABLE VEGETATION. PLANTS SHALL BE INSPECTED AT LEAST ONCE PER WEEK BY THE CONTRACTOR DURING THE INSTALLATION PERIOD AND ANY NEEDED MAINTENANCE IS TO BE PERFORMED PROMPTLY.

5.2) GRASS AND WEED CONTROL: THE CONTRACTOR SHALL BE RESPONSIBLE FOR MOWING ALL GRASS AROUND LANDSCAPE BEDS AND INDIVIDUAL TREES AND SHRUBS UNTIL FINAL ACCEPTANCE. WEED CONTROL AREAS SHALL INCLUDE ALL LANDSCAPE BEDS AND THE AREA WITHIN 2 FEET OF THE OUTER EDGE OF THE MULCH AREA OR INDIVIDUAL TREE/SHRUBS.

5.3) THE CONTRACTOR SHALL WATER, FERTILIZE, WEED, CULTIVATE, REMULCH, SPRAY TO CONTROL INSECT INFESTATION AND DISEASE AND PERFORM ANY OTHER GOOD HORTICULTURAL PRACTICE NECESSARY TO MAINTAIN THE PLANTS IN A LIVING HEALTHY CONDITION UPON THE TIME FOR TERMINATION OF HIS RESPONSIBILITY FOR CARE AS SET OUT HEREIN. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PLANTS THROUGHOUT LIFE OF THE CONTRACT.

5.4) ALL PLANTS STOLEN, DAMAGED OR DESTROYED BY FIRE, AUTOMOBILES, VANDALISM OR ANY OTHER CAUSE, WITH THE EXCEPTION OF PLANTS DAMAGED OR DESTROYED BY THE OWNER'S MAINTENANCE OPERATIONS, SHALL BE REPLACED BY THE OWNER PRIOR TO THE DATE OF FINAL ACCEPTANCE.

5.5) LANDSCAPE CONTRACTOR SHALL PREPARE MAINTENANCE SPECIFICATIONS AND SCHEDULE ANNUAL CARE OF ALL PLANTED AND LAWN AREAS INCLUDING FERTILIZING, WEEDING, MULCHING, BED EDGING, PRUNING AND PEST PREVENTION AND TREATMENT.

## 6.0 PLANT MATERIAL GUARANTEE

\*CONTRACTOR SHALL GUARANTEE IN WRITING ALL PLANT MATERIAL AND LANDSCAPE IMPROVEMENTS FOR A PERIOD OF ONE YEAR. THE GUARANTEE IS TO INCLUDE THE FOLLOWING:

6.1) INSPECTIONS: PERFORM PERIODIC INSPECTIONS DURING GUARANTEE PERIOD WITH RESULTING WRITTEN REPORTS TO OWNER, PROJECT ADMINISTRATOR AND LANDSCAPE ARCHITECT STATING CONDITIONS AND RECOMMEND MAINTENANCE MODIFICATIONS. THE CONTRACTOR MUST CONTACT THE OWNER AND LANDSCAPE ARCHITECT AT LEAST 10 DAYS IN ADVANCE TO SCHEDULE ACCEPTANCE INSPECTION(S).

6.2) REMOVAL AND REPLACEMENT OF PLANTS PROVIDED BY CONTRACTOR TO BE DONE WITHIN THIRTY DAYS OF NOTIFICATION BY OWNER OF THEIR UNSATISFACTORY CONDITION DURING GROWING SEASONS. REPLACEMENT MATERIALS MUST BE EQUAL IN TYPE AND SIZE PER THE PROJECT'S PLANT LIST.

6.3) WHEN REPLACEMENT PLANT SPECIES IS EITHER NOT READILY AVAILABLE OR NO LONGER SUITABLE TO EXISTING SITE CONDITIONS WRITTEN NOTICE RECOMMENDATION OR SUBSTITUTION TO BE PROVIDED TO THE OWNER AND LANDSCAPE ARCHITECT WITHIN FIFTEEN DAYS FOR APPROVAL.

6.4) REMOVAL OF TREE'S SUPPORTS AND DEAD LIMBS PRIOR TO END OF GUARANTEE INSPECTION PERIOD.

6.5) CONTINUE WITH MAINTENANCE, SEE SECTION 5.0

6.6) GUARANTEE SHALL BEGIN UPON DATE OF FINAL ACCEPTANCE FROM OWNER AND WILL CONTINUE FOR ONE YEAR.

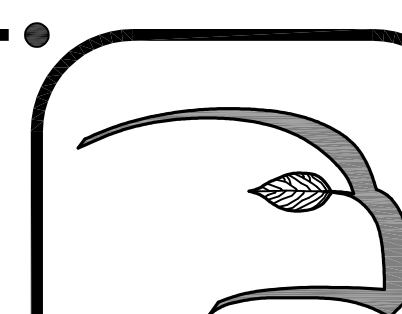
## 7.0 SITE CLEAN UP

7.1) SITE WORK CONDITIONS: EXCESS WASTE MATERIAL SHALL BE REMOVED DAILY WHEN PLANTING IN AN AREA HAS BEEN COMPLETED. THE AREA SHALL BE CLEARED OF ALL DEBRIS, SOIL PILES AND CONTAINERS DAILY. WHERE EXISTING GRASS AREAS HAVE BEEN DAMAGED OR SCARRED DURING PLANTING OPERATIONS, THE CONTRACTOR SHALL RESTORE DISTURBED AREAS TO THEIR ORIGINAL CONDITIONS AT HIS EXPENSE.

7.2) CLEAN PAVED AREAS UTILIZED FOR HAULING OR EQUIPMENT STORAGE AT END OF EACH WORKDAY.

7.3) MAINTAIN VEHICLES AND EQUIPMENT IN CLEAN CONDITION TO PREVENT SOILING OF ROADS, WALKS OR OTHER PAVED OR SURFACED AREAS.

7.4) REMOVE PROTECTIVE BARRIERS AND WARNING SIGNS AT TERMINATION OF LAWN ESTABLISHMENT.



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Date: 2/14/20

### Revisions:

Num.	Date	Description
1.	7/28/20	Final Town Submission
2.	11/5/20	Revise planting plan as per site plan revisions
3.	6/23/21	Revise planting plan as per site plan revisions
4.	8/4/21	Revise planting plan as per site plan revisions

176-210 Grove Street  
Franklin, Massachusetts  
Prepared for: MCP III 176 Grove LLC & MCP III 210 Grove LLC

Drawn By: BNL Checked By: TEM

Planting  
Notes

Scale: N/A

Sheet:

D2

Town Permit Submittal Plan

