

P-0714-05  
November 5, 2020

Mr. Dexter Legg, Chairman  
City of Portsmouth Planning Department  
1 Junkins Avenue  
Portsmouth, New Hampshire 03801

Re: **Amended Subdivision Application**  
**Proposed Public Road from Lang Road to Longmeadow Road**

Dear Chairman Legg:

On behalf of Service Credit Union, owner, and the City of Portsmouth, applicant, we are pleased to submit the following information to support an Amended Subdivision Application for the above referenced project:

- Two (2) full size and ten (10) half size copies of Site Plans last revised November 6, 2020

On February 21, 2019 the project was granted Final Subdivision Approval with stipulations from the Planning Board. The enclosed plans have been amended as result to revisions to the stormwater management design.

The previously approved design utilized a drainage easement across Service Credit Union's existing stormwater pond in order to provide treatment for roadway runoff. The existing stormwater pond is located on the proposed lot identified as Tax Map 291, Lot 1-2.

The revised stormwater management design will provide a new rain garden in order to separate the treatment of roadway runoff from Service Credit Union's stormwater pond. The proposed rain garden will be located Tax Map 291, Lot 1-1 in the west corner of the parcel. Service Credit Union, also the owner of Tax Map 291, Lot 1-1, has agreed to grant a new drainage easement in this location to benefit the City of Portsmouth.

We respectfully request to be placed on the December 17, 2020 Planning Board agenda. If you have any questions or need any additional information, please contact me at (603) 433-8818 or [pmcrimmins@tighebond.com](mailto:pmcrimmins@tighebond.com).

Sincerely,  
**TIGHE & BOND, INC.**



Patrick M. Crimmins, PE  
Senior Project Manager



Neil A. Hansen, PE  
Project Engineer

Enclosures

Copy: Service Credit Union (via email)  
City of Portsmouth, DPW (via email)

# LONGMEADOW ROAD EXTENSION

## LONGMEADOW ROAD AND LANG ROAD AT US ROUTE 1 PORTSMOUTH, NEW HAMPSHIRE

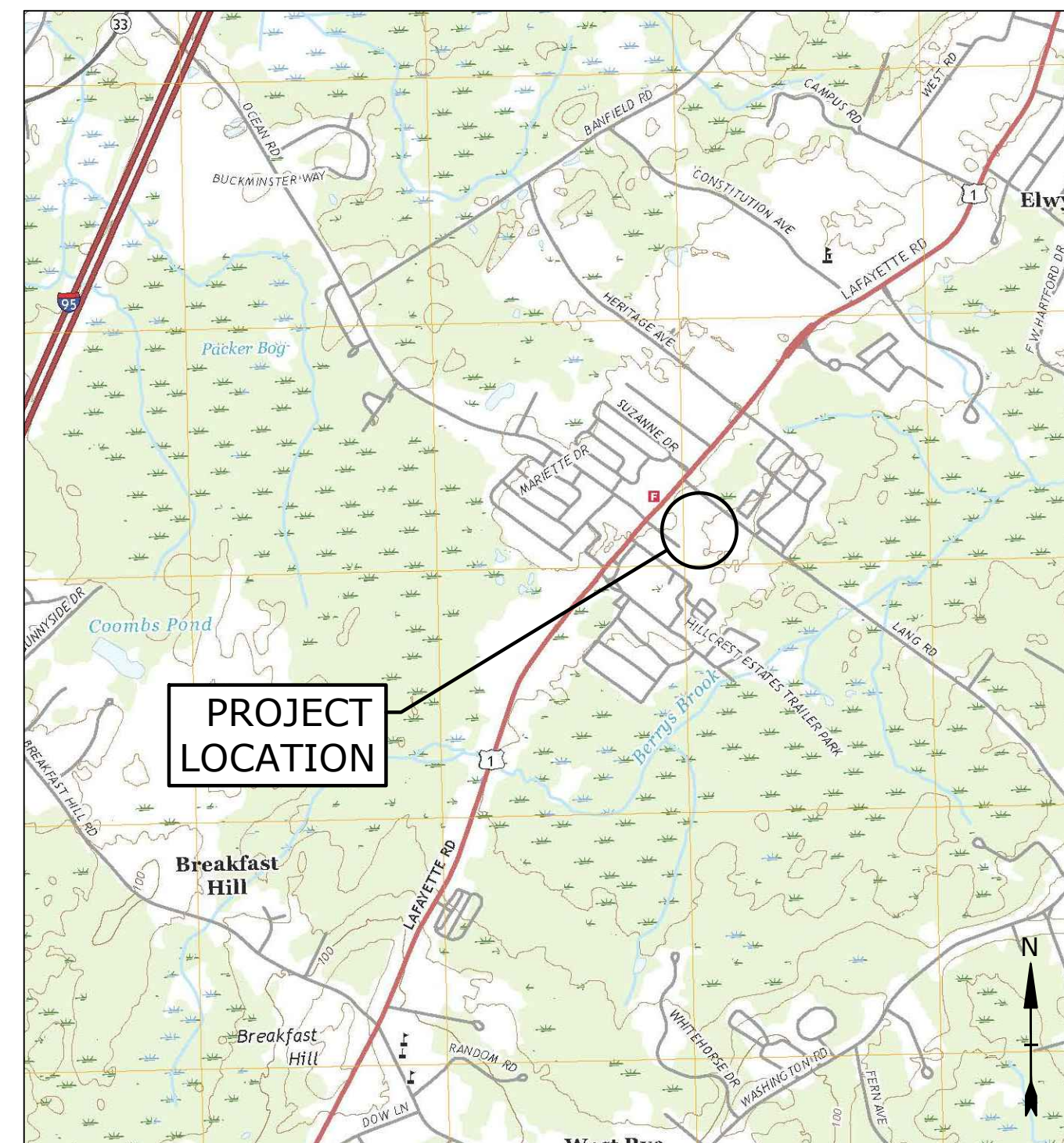
### PROJECT NO: P-0714-005

### PORTSMOUTH #42350, X-A004(818)

### JANUARY 7, 2019

### LAST REVISED: NOVEMBER 6, 2020

LIST OF DRAWINGS		
SHEET NO.	SHEET TITLE	LAST REVISED
	COVER SHEET	10/21/2020
1 OF 3	SUBDIVISION PLAN	11/6/2020
2 OF 3	SUBDIVISION PLAN	11/6/2020
3 OF 3	SUBDIVISION PLAN	11/6/2020
C-100	GENERAL NOTES, LEGEND & ABBREVIATIONS	10/21/2020
C-101	EXISTING CONDITIONS PLAN	10/21/2020
C-102	DEMOLITION PLAN	10/21/2020
C-103	OVERALL ROADWAY PLAN	10/21/2020
C-103.1	PROPOSED ROADWAY PLAN	10/21/2020
C-104	GRADING, DRAINAGE, & EROSION CONTROL PLAN	10/21/2020
C-105	UTILITIES PLAN	10/21/2020
C-106	LONGMEADOW ROAD PLAN & PROFILE	10/21/2020
C-107	LONGMEADOW ROAD EXTENSION PLAN & PROFILE	10/21/2020
C-108	LONGMEADOW ROAD EXTENSION PLAN & PROFILE	10/21/2020
C-109	LANG ROAD PLAN & PROFILE	10/21/2020
C-110	LANG ROAD SIGHT DISTANCE PLAN & PROFILE	10/21/2020
C-501	EROSION CONTROL NOTES & DETAILS SHEET	10/21/2020
C-502	DETAILS SHEET	10/21/2020
C-503	DETAILS SHEET	10/21/2020
C-504	DETAILS SHEET	10/21/2020
C-505	DETAILS SHEET	10/21/2020



LOCATION MAP  
SCALE: 1" = 2,000'

PREPARED BY:

**Tighe & Bond**  
Engineers | Environmental Specialists  
177 Corporate Drive  
Portsmouth, NH 03801  
(603) 433-8818

APPLICANT:

City Of Portsmouth  
1 Junkins Ave,  
Portsmouth, NH 03801

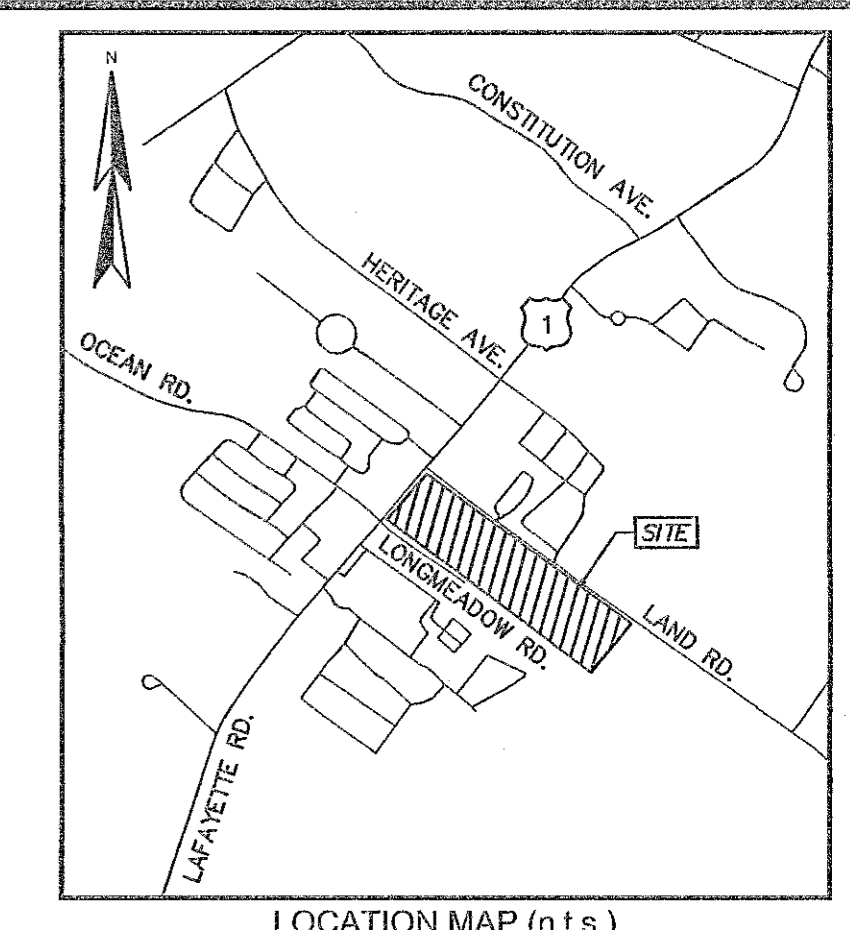
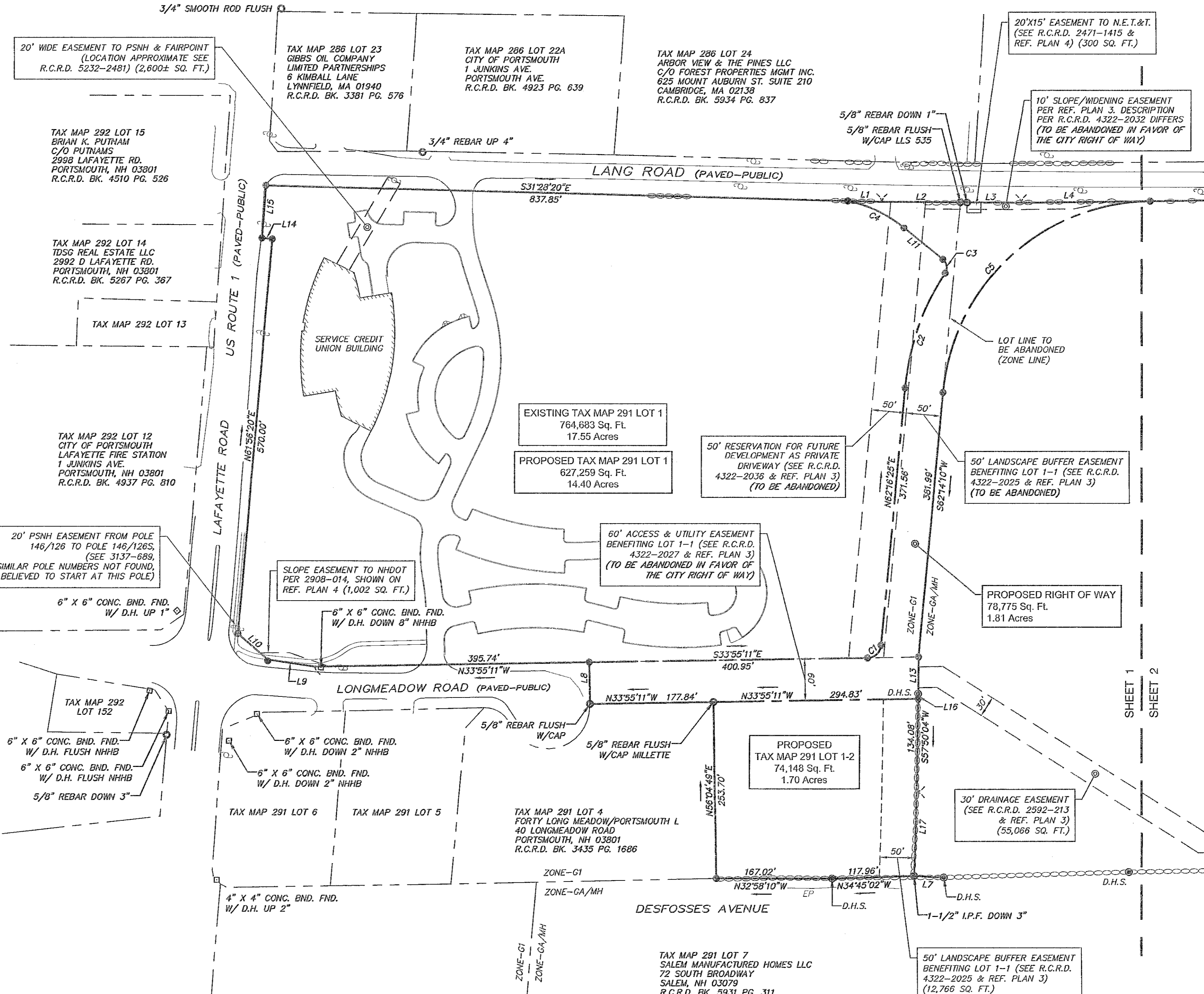
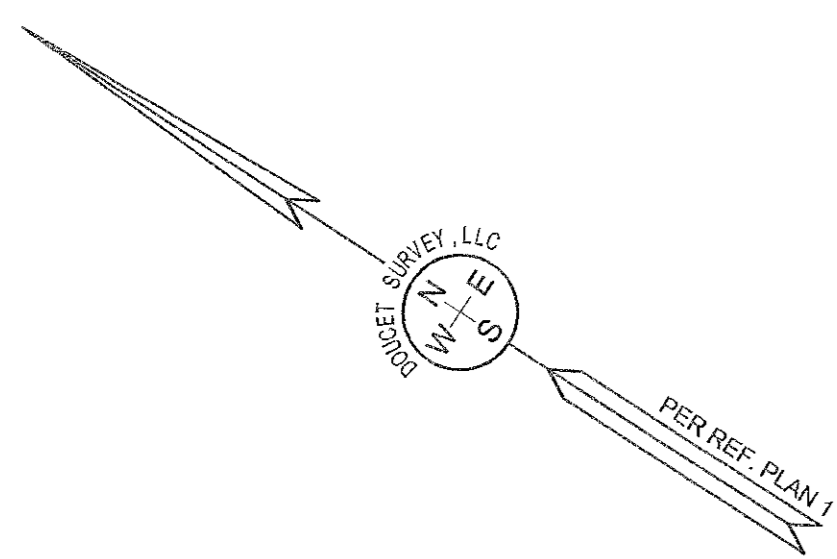
SURVEYOR:

Doucet Survey, Inc.  
102 Kent Place  
Newmarket, NH 03857

OWNER:

Service Credit Union  
3003 Lafayette Road,  
Portsmouth, NH 03801

**AMENDED PB SUBMISSION  
COMPLETE SET 21 SHEETS**

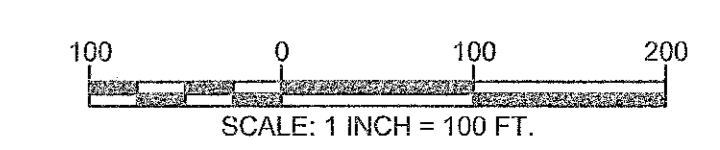


- ADDITIONAL ADJUTERS**
- TAX MAP 291 LOT 5  
MJD REAL ESTATE HOLDINGS LLC  
200 HOLLEDER PKWY  
ROCHESTER, NH 14615  
R.C.R.D. BK. 4974 PG. 2806
  - TAX MAP 291 LOT 6  
KATHERINE L. NADEAU FAMILY TRUST 2015  
KATHERINE NADEAU TRUSTEE  
11 STRATHAM LANE  
GREENLAND, NH 03840  
R.C.R.D. BK. 5647 PG. 2275
  - TAX MAP 292 LOT 13  
MCK REALTY TRUST  
KIM M B & CJ TRUSTEES  
70 SOUTH ROAD  
NORTH HAMPTON, NH 03882  
R.C.R.D. BK. 5289 PG. 1606
  - TAX MAP 292 LOT 14  
TDSC REAL ESTATE LLC  
2992 D LAFAYETTE RD.  
PORTSMOUTH, NH 03801  
R.C.R.D. BK. 5287 PG. 367
  - TAX MAP 292 LOT 15  
BRIAN K. PUTNAM  
C/O PUTNAMS  
2909 LAFAYETTE RD.  
PORTSMOUTH, NH 03801  
R.C.R.D. BK. 4510 PG. 526
  - TAX MAP 292 LOT 12  
CITY OF PORTSMOUTH  
LAFAYETTE FIRE STATION  
1 JUNKINS AVE.  
PORTSMOUTH, NH 03801  
R.C.R.D. BK. 4937 PG. 810
  - TAX MAP 291 LOT 1  
764,883 Sq. Ft.  
17.55 Acres
  - PROPOSED TAX MAP 291 LOT 1  
627,259 Sq. Ft.  
14.40 Acres
  - TAX MAP 291 LOT 4  
FORTY LONG MEADOW/PORTSMOUTH L  
40 LONGMEADOW ROAD  
PORTSMOUTH, NH 03801  
R.C.R.D. BK. 3435 PG. 1686
  - TAX MAP 291 LOT 7  
SALEM MANUFACTURED HOMES LLC  
72 SOUTH BROADWAY  
SALEM, NH 03079  
R.C.R.D. BK. 5931 PG. 311

LINE TABLE				LINE TABLE			
LINE	BEARING	DISTANCE	LINE	BEARING	DISTANCE		
L1	S31°28'20"E	48.92'	L10	N08°01'49"E	56.79'		
L2	S32°36'05"E	113.31'	L11	N06°03'30"E	72.39'		
L3	S32°35'53"E	87.54'	L13	S57°43'18"W	53.10'		
L4	S33°40'09"E	185.58'	L14	N28°03'40"W	14.90'		
L7	N29°56'57"W	43.01'	L15	N61°28'40"E	76.18'		
L8	N56°04'49"E	60.00'	L16	S57°50'04"W	6.93'		
L9	N24°22'34"W	67.89'	L17	S58°49'05"W	120.88'		

CURVE TABLE					
CURVE	ARC LENGTH	RADIUS	DELTA ANGLE	CHORD BEARING	CHORD LENGTH
C1	29.25'	20.00'	083°48'25"	S75°49'23"E	26.72'
C2	176.73'	363.00'	027°53'42"	N76°13'15"E	174.99'
C3	22.02'	15.00'	084°06'37"	N48°06'48"E	20.10'
C4	90.42'	188.00'	027°34'14"	N07°29'03"W	89.60'
C5	444.72'	303.00'	084°05'41"	N75°43'00"W	405.87'

- LEGEND**
- LOT LINE
  - PROPOSED LOT LINE
  - LOT LINE TO BE ABANDONED
  - EXISTING EASEMENT LINE
  - PROPOSED EASEMENT LINE
  - APPROXIMATE ADJUTERS LOT LINE
  - STONE WALL
  - REMNANT STONE WALL
  - EDGE OF WETLAND
  - EDGE OF WATER
  - STREAM
  - WETLAND AREA
  - UTILITY POLE
  - BOUND FOUND
  - DRILL HOLE
  - IRON PIPE/ROD FOUND
  - GRANITE
  - CONCRETE
  - BND. FND.
  - D.H.F.
  - D.H.S.
  - I.P.F.
  - SUITABLE MONUMENT TO BE SET

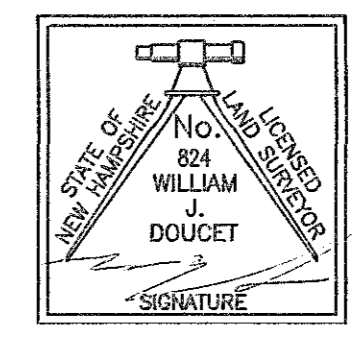


**SUBDIVISION PLAN  
OF  
SERVICE CREDIT UNION  
(TAX MAP 291 LOT 1 & LOT 1-1)  
FOR THE  
CITY OF PORTSMOUTH  
LAFAYETTE ROAD (US ROUTE 1),  
LONGMEADOW ROAD & LANG ROAD  
PORTSMOUTH, NEW HAMPSHIRE**

- NOTES:**
- REFERENCE: TAX MAP 291, LOT 1 & LOT 1-1 LAFAYETTE ROAD PORTSMOUTH, NH
  - TOTAL PARCEL AREA PRIOR TO SUBDIVISION:  
TAX MAP 291 LOT 1 = 764,998 SQ. FT. OR 17.56 AC.  
TAX MAP 291 LOT 1-1 = 1,179,324 SQ. FT. OR 27.07 AC.
  - OWNER OF RECORD: SERVICE CREDIT UNION 3003 LAFAYETTE ROAD PORTSMOUTH, NH 03801 R.C.R.D. BK. 4932 PG. 2469 (LOT 1) R.C.R.D. BK. 5259 PG. 349 (LOT 1) R.C.R.D. BK. 5423 PG. 1976 (LOT 1-1)

- HORIZONTAL DATUM BASED ON PLAN REFERENCE 1.
- VERTICAL DATUM IS BASED ON NGVD 29 (SURVEY DISK "GPS ROBE, 379-0870").
- FLOOD HAZARD ZONE: "X" & "A", PER FIRM MAP 33015C0270E, DATED 5/17/05.
- THE INTENT OF THIS PLAN IS TO CREATE A NEW RIGHT OF WAY TO CONNECT U.S. ROUTE 1 TO LANG ROAD BY CONNECTING THROUGH LONGMEADOW ROAD.
- DUE TO THE COMPLEXITY OF RESEARCHING ROAD RECORDS AS A RESULT OF INCOMPLETE, UNORGANIZED, INCONCLUSIVE, OBLITERATED, OR LOST DOCUMENTS, THERE IS AN INHERENT UNCERTAINTY INVOLVED WHEN ATTEMPTING TO DETERMINE THE LOCATION AND WIDTH OF A ROADWAY RIGHT OF WAY. THE EXTENT OF (THE ROAD(S)) AS DEPICTED HEREON IS/ARE BASED ON RESEARCH CONDUCTED AT THE ROCKINGHAM REGISTRY OF DEEDS.
- FINAL MONUMENTATION MAY BE DIFFERENT THAN THE PROPOSED MONUMENTATION SHOWN HEREON, DUE TO THE FACT THAT SITE CONDITIONS WILL DICTATE THE ACTUAL LOCATION AND TYPE OF MONUMENTS INSTALLED IN THE FIELD. PLEASE REFER TO EITHER THE "MONUMENTATION LOCATION PLAN" TO BE RECORDED OR CONTACT DOUCET SURVEY, INC. FOR CLARIFICATION OF MONUMENTS SET. (A RECORDED PLAN WILL BE PRODUCED AT THE DISCRETION OF DOUCET SURVEY, LLC).
- ALL ELECTRIC, GAS, TEL. WATER, SEWER AND DRAIN SERVICES ARE SHOWN IN SCHEMATIC FASHION, THEIR LOCATIONS ARE NOT PRECISE OR NECESSARILY ACCURATE. NO WORK WHATSOEVER SHALL BE UNDERTAKEN ON THIS SITE USING THIS PLAN TO LOCATE THE ABOVE SERVICES. CONSULT WITH THE PROPER AUTHORITIES CONCERNED WITH THE SUBJECT SERVICE LOCATIONS FOR INFORMATION REGARDING SUCH. CALL DIG-SAFE AT 1-888-DIG-SAFE.
- BUILDING LOCATION, PARKING LOT AND SIDEWALKS ON SERVICE CREDIT UNION SITE ARE BASED ON DATA PROVIDED BY TIGHE & BOND. THE LOCATIONS THEREOF WERE NOT FIELD VERIFIED BY DOUCET SURVEY UNLESS FALLING WITHIN THE SPECIFIED TOPOGRAPHIC SURVEY LIMITS.
- RIGHTS MAY EXIST FOR CONSTRUCTION OF A DAM PER NHDES ORDER "DAM #119.06" DATED FEBRUARY 15, 1977. R.C.R.D. BOOK 2307, PAGE 1852.

- REFERENCE PLANS:**
- "TOPOGRAPHIC PLAN FOR SERVICE CREDIT UNION OF 2995 LAFAYETTE ROAD/US ROUTE 1, PORTSMOUTH, NEW HAMPSHIRE" DATED JANUARY 8, 2010 BY DOUCET SURVEY, INC.
  - "LOT LINE RELOCATION PLAN FOR RALPH'S TRUCK SALES, INC. ET AL" DATED AUGUST 28, 1999 BY MILLETTE, SPRAGUE & COLWELL, INC. R.C.R.D. PLAN D-27623.
  - "EASEMENT PLAN FOR RALPH'S TRUCK SALES INC., SIEGEL LIMITED PARTNERSHIP, OCEAN CASTLE LIMITED PARTNERSHIP, AND LANG + LONG MEADOW DEVELOPMENT LLC, LANG ROAD AND LONG MEADOW ROAD, COUNTY OF ROCKINGHAM, PORTSMOUTH, NH" DATED AUGUST 28, 2003 AND REVISED THROUGH 7/08/04 BY MILLETTE, SPRAGUE & COLWELL, INC. R.C.R.D. PLAN D-31845.
  - "PLAN OF PORTSMOUTH FG-F-001(G) - P-3844" DATED 4-13-84. R.C.R.D. PLAN D-17184. TAKINGS ALONG THE SUBJECT PREMISES ARE PER R.C.R.D. BK. 2592 PG. 213 & BK. 2908 PG. 014.
  - "SUBDIVISION PLAN FOR RALPH'S TRUCK SALES, INC. 2995 LAFAYETTE ROAD, COUNTY OF ROCKINGHAM, PORTSMOUTH, NH" DATED JANUARY 14, 1987 WITH A REVISION OF 4/7/97 BY RICHARD P. MILLETTE AND ASSOCIATES. R.C.R.D. PLAN D-25389.
  - "SUBDIVISION OF LAND PORTSMOUTH, NH FOR LONGMEADOW, INC." DATED DECEMBER 1976 BY JOHN W. DURGIN. R.C.R.D. PLAN D-7743.
  - "BOUNDARY PLAN FOR THE CITY OF PORTSMOUTH OF TAX MAP 291 LOT 1 & LOT 1-1 LAFAYETTE ROAD (US ROUTE 1), LONGMEADOW ROAD & LANG ROAD PORTSMOUTH, NEW HAMPSHIRE" DATED SEPTEMBER 6, 2018 BY DOUCET SURVEY, INC.



I CERTIFY THAT THIS SURVEY AND PLAN WERE PREPARED BY ME OR BY THOSE UNDER MY DIRECT SUPERVISION AND FALLS UNDER THE URBAN SURVEY CLASSIFICATION OF THE NH CODE OF ADMINISTRATIVE RULES OF THE BOARD OF LICENSURE FOR LAND SURVEYORS. I CERTIFY THAT THIS SURVEY WAS MADE ON THE GROUND AND IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. RANDOM TRAVERSE SURVEY BY TOTAL STATION, WITH A PRECISION GREATER THAN 1:15,000.

W. J. DOUCET  
L.L.S. #924  
DATE: 1-10-20

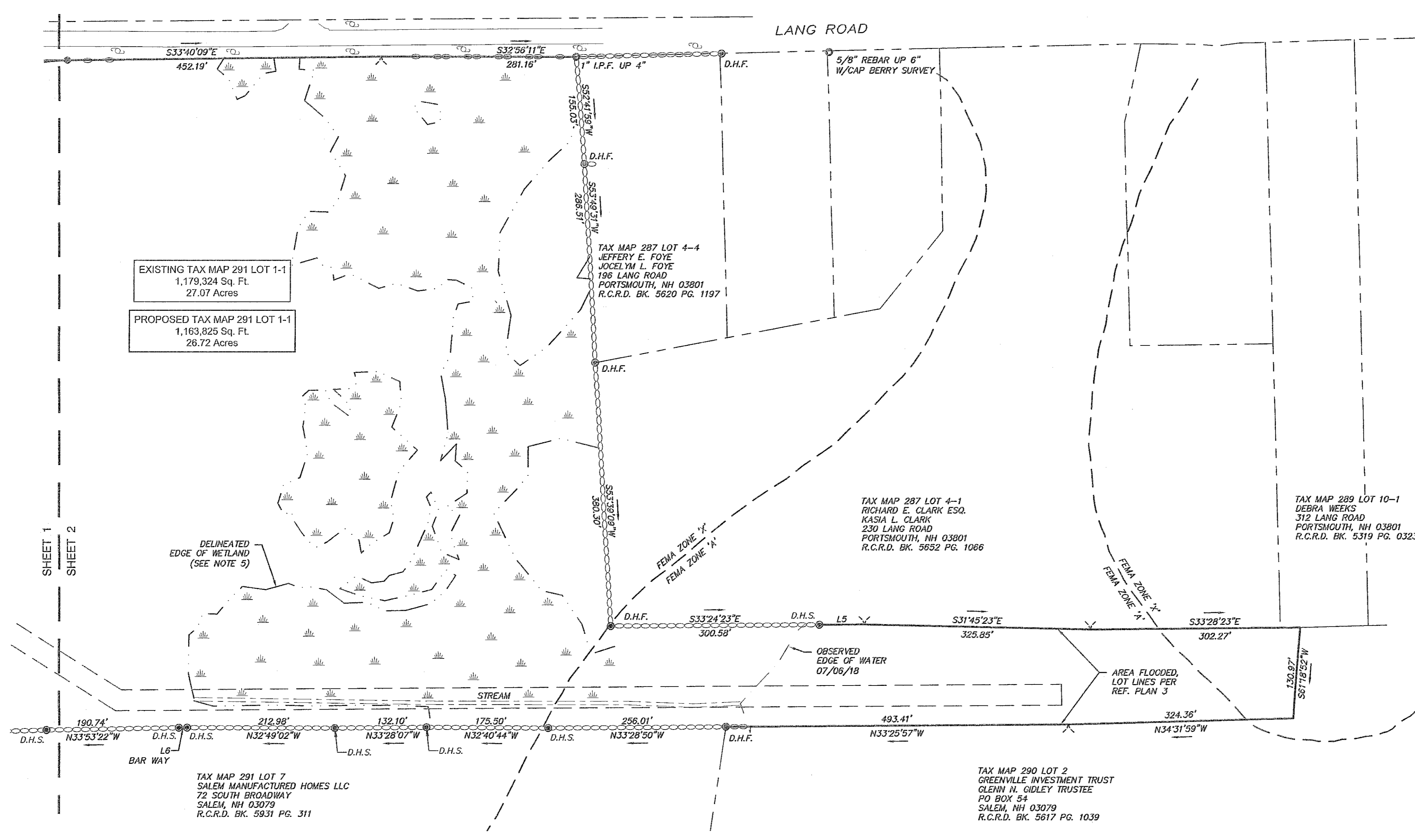
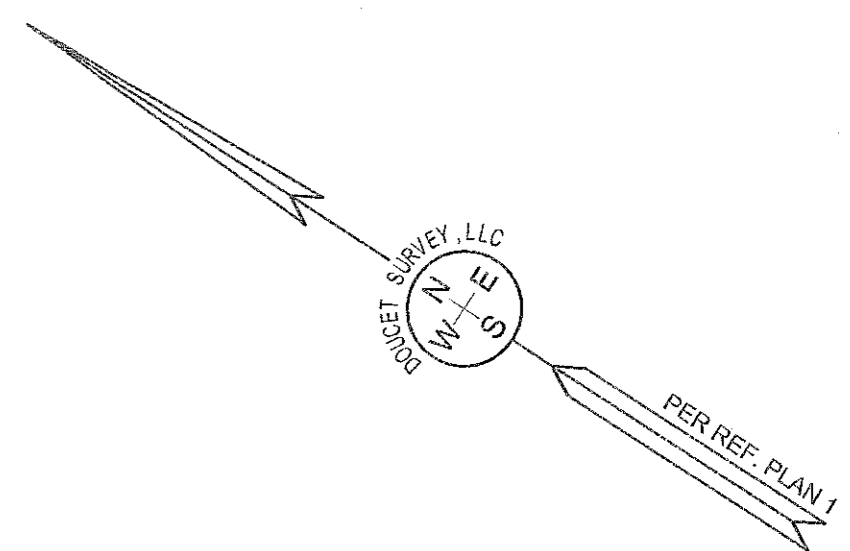
NO.	DATE	DESCRIPTION	BY
2	11/4/20	ADD ADDITIONAL EASEMENTS	M.T.L.
1	3/15/19	ADD PROPOSED DRAINAGE EASEMENT B	M.T.L.

DRAWN BY:	M.T.L.	DATE:	JANUARY 10, 2019
CHECKED BY:	W.J.D.	DRAWING NO.:	5539B
JOB NO.:	5539	SHEET	1 OF 3

**DOUCET SURVEY**

Serving Your Professional Surveying & Mapping Needs  
102 Kent Place, Newmarket, NH 03857 (603) 659-6560  
2 Commerce Drive (Suite 202) Bedford, NH 03110 (603) 614-4060  
10 Storer Street (Riverview Suite) Kennebunk, ME (207) 502-7005  
<http://www.doucetsurvey.com>

LINE TABLE		
LINE	BEARING	DISTANCE
L5	S33°24'23"E	64.81'
L6	N34°14'26"W	11.86'



EXISTING TAX MAP 291 LOT 1-1  
1,179,324 Sq. Ft.  
27.07 Acres

PROPOSED TAX MAP 291 LOT 1-1  
1,163,825 Sq. Ft.  
26.72 Acres

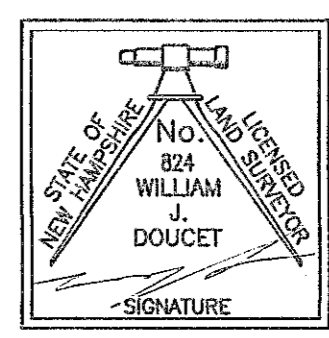
TAX MAP 287 LOT 4-4  
JEFFERY E. FOYE  
JOCELYN L. FOYE  
196 LANG ROAD  
PORTSMOUTH, NH 03801  
R.C.R.D. BK. 5620 PG. 1197

TAX MAP 287 LOT 4-1  
RICHARD E. CLARK ESQ.  
KASIA L. CLARK  
230 LANG ROAD  
PORTSMOUTH, NH 03801  
R.C.R.D. BK. 5652 PG. 1066

TAX MAP 289 LOT 10-1  
DEBRA WEEKS  
312 LANG ROAD  
PORTSMOUTH, NH 03801  
R.C.R.D. BK. 5319 PG. 0323

TAX MAP 291 LOT 7  
SALEM MANUFACTURED HOMES LLC  
72 SOUTH BROADWAY  
SALEM, NH 03079  
R.C.R.D. BK. 5931 PG. 311

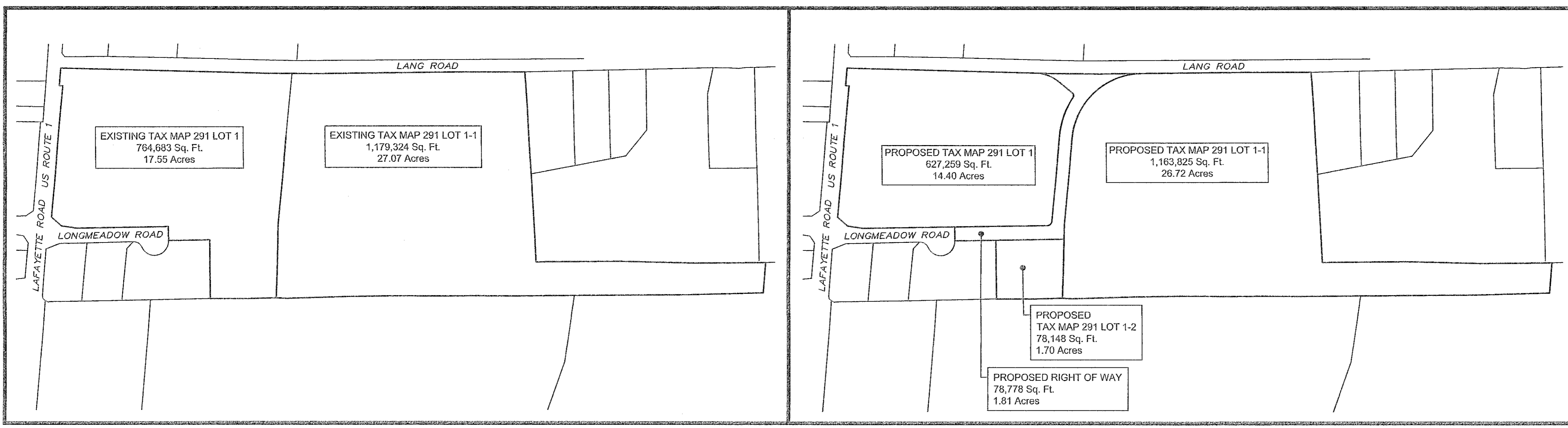
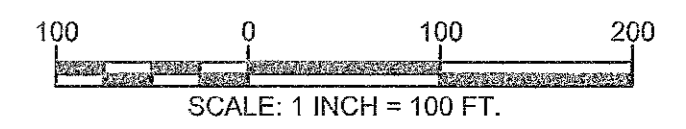
TAX MAP 280 LOT 2  
GREENVILLE INVESTMENT TRUST  
GLENN H. GIDLEY TRUSTEE  
PO BOX 54  
SALEM, NH 03079  
R.C.R.D. BK. 5617 PG. 1039



I CERTIFY THAT THIS SURVEY AND PLAN WERE PREPARED BY ME OR BY THOSE UNDER MY DIRECT SUPERVISION AND FALLS UNDER THE URBAN SURVEY CLASSIFICATION OF THE NH CODE OF ADMINISTRATIVE RULES OF THE BOARD OF LICENSURE FOR LAND SURVEYORS. I CERTIFY THAT THIS SURVEY WAS MADE ON THE GROUND AND IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. RANDOM TRAVERSE SURVEY BY TOTAL STATION, WITH A PRECISION GREATER THAN 1:15,000.

\_\_\_\_\_  
L.L.S. #824  
DATE 11-6-20

THE CERTIFICATIONS SHOWN HEREON ARE INTENDED TO MEET REGISTRY OF DEED REQUIREMENTS AND ARE NOT A CERTIFICATION TO TITLE OR OWNERSHIP OF PROPERTY SHOWN. OWNERS OF ADJOINING PROPERTIES ARE ACCORDING TO CURRENT TOWN ASSESSORS RECORDS.

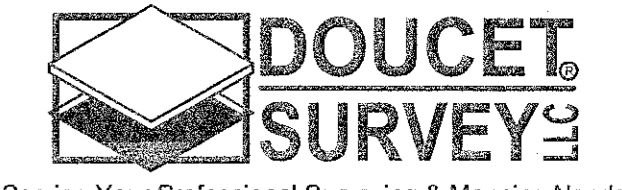


KEY PLAN  
SCALE: 1" = 300'

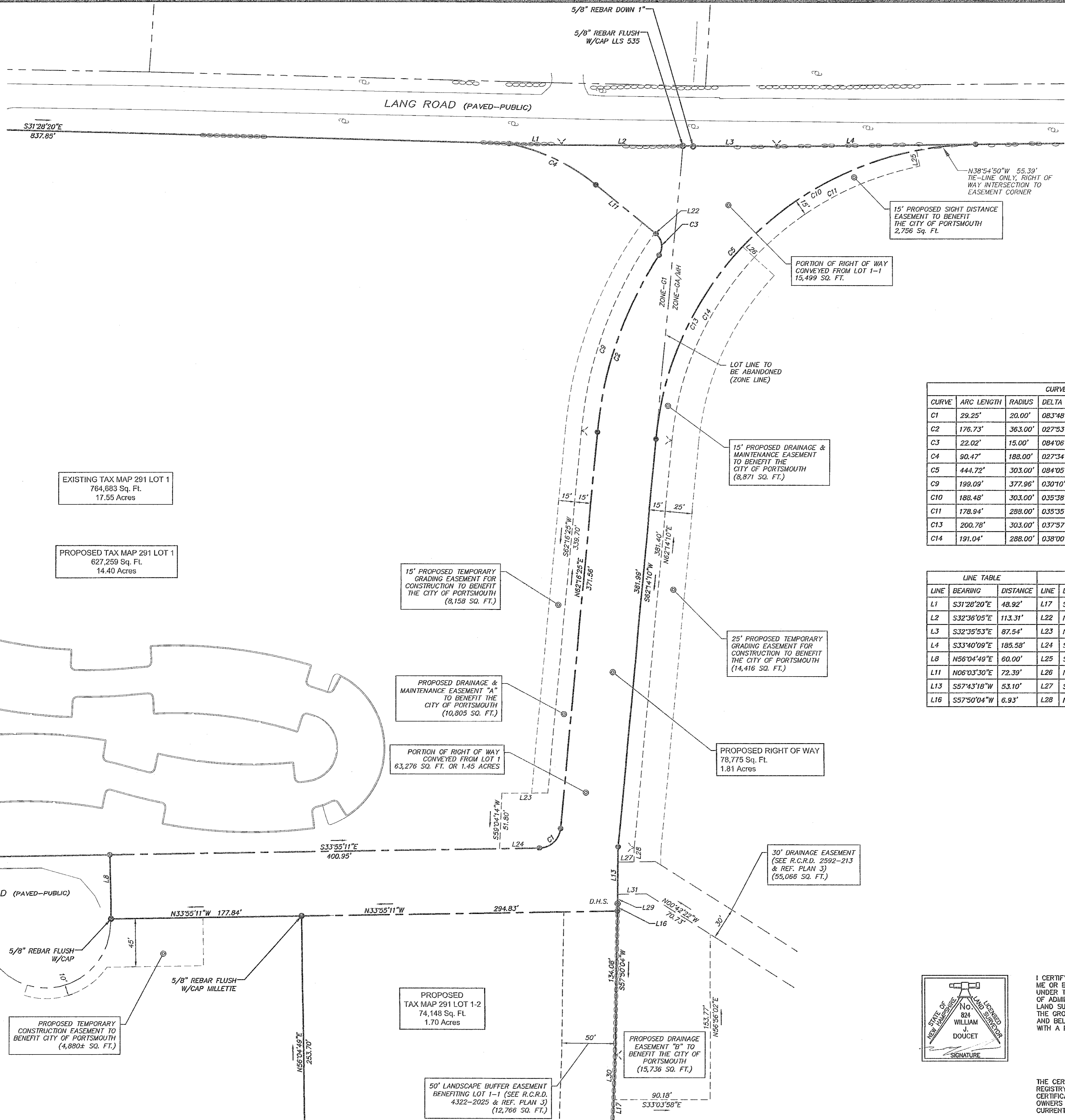
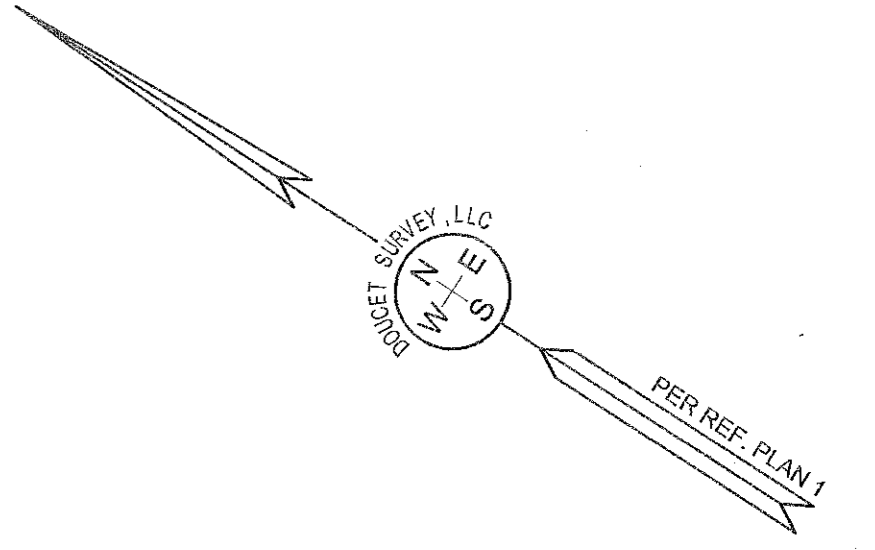
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NO.	DATE	DESCRIPTION	BY
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CHECKED BY:	W.J.D.	DRAWING NO.:	5539B
JOB NO.:	5539	SHEET	2 OF 3



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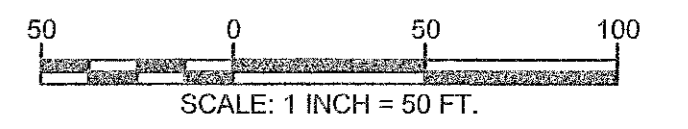


CURVE TABLE

CURVE	ARC LENGTH	RADIUS	DELTA ANGLE	CHORD BEARING	CHORD LENGTH
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C5	444.72'	303.00'	084°05'41"	N75°43'00"W	405.87'
C9	199.09'	377.96'	030°10'48"	S77°21'43"W	196.79'
C10	188.48'	303.00'	035°38'23"	N61°58'42"W	185.45'
C11	178.94'	288.00'	035°35'54"	S61°57'28"E	176.07'
C13	200.76'	303.00'	037°57'56"	S81°13'08"W	197.12'
C14	191.04'	288.00'	038°00'25"	S81°14'22"W	187.56'

LINE TABLE

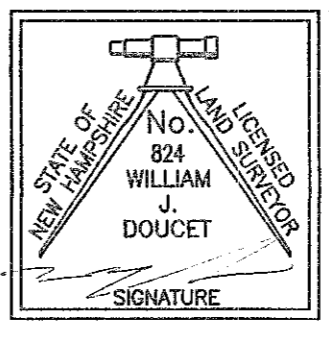
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L2	S32°36'05"E	113.31'	L22	N06°03'30"E	1.25'	L30	S58°49'05"W	41.48'
L3	S32°35'53"E	87.54'	L23	N33°07'59"W	42.91'	L31	N33°50'11"W	28.74'
L4	S33°40'09"E	185.58'	L24	S33°55'11"E	37.20'			
L8	N56°04'49"E	60.00'	L25	S45°50'29"W	15.00'			
L11	N06°03'30"E	72.39'	L26	N09°24'20"E	15.00'			
L13	S57°43'18"W	53.10'	L27	S33°50'11"E	15.01'			
L16	S57°50'04"W	6.93'	L28	N57°43'18"E	13.28'			



**SUBDIVISION PLAN**  
 OF  
**SERVICE CREDIT UNION**  
 (TAX MAP 291 LOT 1 & LOT 1-1)  
 FOR THE  
**CITY OF PORTSMOUTH**  
 LAFAYETTE ROAD (US ROUTE 1),  
 LONGMEADOW ROAD & LANG ROAD  
 PORTSMOUTH, NEW HAMPSHIRE


NO.	DATE	DESCRIPTION	BY
2	11/4/20	ADD ADDITIONAL EASEMENTS	M.T.L.
1	3/15/19	ADD PROPOSED DRAINAGE EASEMENT B	M.T.L.

DRAWN BY:	M.T.L.	DATE:	JANUARY 10, 2019
CHECKED BY:	W.J.D.	DRAWING NO.:	5539B
JOB NO.:	5539	SHEET	3 OF 3



I CERTIFY THAT THIS SURVEY AND PLAN WERE PREPARED BY ME OR BY THOSE UNDER MY DIRECT SUPERVISION AND FALLS UNDER THE URBAN SURVEY CLASSIFICATION OF THE NH CODE OF ADMINISTRATIVE RULES OF THE BOARD OF LICENSURE FOR LAND SURVEYORS. I CERTIFY THAT THIS SURVEY WAS MADE ON THE GROUND AND IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, RANDOM TRAVERSE SURVEY BY TOTAL STATION, WITH A PRECISION GREATER THAN 1:15,000.  
 \_\_\_\_\_ L.L.S. #824  
 DATE 11-6-20

THE CERTIFICATIONS SHOWN HEREON ARE INTENDED TO MEET REGISTRY OF DEED REQUIREMENTS AND ARE NOT A CERTIFICATION TO TITLE OR OWNERSHIP OF PROPERTY SHOWN. OWNERS OF ADJOINING PROPERTIES ARE CURRENT TO CURRENT TOWN ASSESSORS RECORDS.

  
**DOUCET SURVEY**  
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<http://www.doucetsurvey.com>

**GENERAL NOTES:**

- THE LOCATIONS OF UNDERGROUND UTILITIES ARE APPROXIMATE AND THE LOCATIONS ARE NOT GUARANTEED BY THE OWNER OR THE ENGINEER. IT IS THE CONTRACTOR'S RESPONSIBILITY TO LOCATE ALL UTILITIES, ANTICIPATE CONFLICTS, REPAIR EXISTING UTILITIES AND RELOCATE EXISTING UTILITIES REQUIRED TO COMPLETE THE WORK.
- COORDINATE ALL WORK WITHIN PUBLIC RIGHT OF WAYS WITH THE CITY OF PORTSMOUTH.
- THE CONTRACTOR SHALL EMPLOY A NEW HAMPSHIRE LICENSED LAND SURVEYOR TO DETERMINE ALL LINES AND GRADES.
- THE CONTRACTOR SHALL VERIFY LOCATION OF ALL EXISTING UTILITIES. CALL DIG SAFE AT LEAST 72 HOURS PRIOR TO THE COMMENCEMENT OF ANY DEMOLITION/CONSTRUCTION ACTIVITIES.
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO FAMILIARIZE THEMSELVES AND COMPLY WITH THE CONDITIONS OF ALL OF THE PERMIT APPROVALS.
- THE CONTRACTOR SHALL OBTAIN AND PAY FOR AND COMPLY WITH ADDITIONAL PERMITS, NOTICES AND FEES NECESSARY TO COMPLETE THE WORK AND ARRANGE FOR AND PAY FOR NECESSARY INSPECTIONS AND APPROVALS FROM THE AUTHORITIES HAVING JURISDICTION.
- THE CONTRACTOR SHALL PHASE DEMOLITION AND CONSTRUCTION AS REQUIRED TO PROVIDE CONTINUOUS SERVICE TO EXISTING BUSINESSES AND HOMES THROUGHOUT THE CONSTRUCTION PERIOD. EXISTING BUSINESS AND HOME SERVICES INCLUDE, BUT ARE NOT LIMITED TO ELECTRICAL, COMMUNICATION, FIRE PROTECTION, DOMESTIC WATER AND SEWER SERVICES. TEMPORARY SERVICES, IF REQUIRED, SHALL COMPLY WITH ALL FEDERAL, STATE, LOCAL AND UTILITY COMPANY STANDARDS. CONTRACTOR SHALL PROVIDE DETAILED CONSTRUCTION SCHEDULE TO OWNER PRIOR TO ANY DEMOLITION/CONSTRUCTION ACTIVITIES AND SHALL COORDINATE TEMPORARY SERVICES TO ABBUTERS WITH THE UTILITY COMPANY AND AFFECTED ABUTTER.
- ALL MATERIALS AND CONSTRUCTION SHALL CONFORM TO THE CITY OF PORTSMOUTH DEPARTMENT OF PUBLIC WORKS, STANDARD SPECIFICATIONS AND WITH THE STATE OF NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION, "STANDARD SPECIFICATIONS OF ROAD AND BRIDGE CONSTRUCTION", CURRENT EDITION.
- CONTRACTOR TO SUBMIT AS-BUILT PLANS IN DIGITAL FORMAT (.DWG AND .PDF FILES) ON DISK TO THE OWNER AND ENGINEER UPON COMPLETION OF THE PROJECT. AS-BUILTS SHALL BE PREPARED AND CERTIFIED BY A NEW HAMPSHIRE LICENSED LAND SURVEYOR.
- CONTRACTOR SHALL THOROUGHLY CLEAN ALL CATCH BASINS AND DRAIN LINES, WITHIN THE LIMIT OF WORK, OF SEDIMENT IMMEDIATELY UPON COMPLETION OF CONSTRUCTION.
- SEE EXISTING CONDITIONS PLAN FOR BENCH MARK INFORMATION.

**DEMOLITION NOTES:**

- EROSION CONTROL MEASURES SHALL BE INSTALLED PRIOR TO THE START OF ANY CLEARING OR DEMOLITION ACTIVITIES.
- ALL MATERIALS SCHEDULED TO BE REMOVED SHALL BECOME THE PROPERTY OF THE CONTRACTOR UNLESS OTHERWISE SPECIFIED. THE CONTRACTOR SHALL DISPOSE OF ALL MATERIALS OFF-SITE IN ACCORDANCE WITH ALL FEDERAL, STATE, AND LOCAL REGULATIONS, ORDINANCES AND CODES.
- COORDINATE REMOVAL, RELOCATION, DISPOSAL OR SALVAGE OF UTILITIES WITH THE OWNER AND APPROPRIATE UTILITY COMPANY.
- ANY EXISTING WORK OR PROPERTY DAMAGED OR DISRUPTED BY CONSTRUCTION/ DEMOLITION ACTIVITIES SHALL BE REPLACED OR REPAIRED TO MATCH ORIGINAL EXISTING CONDITIONS BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
- SAW CUT AND REMOVE PAVEMENT ONE (1) FOOT OFF PROPOSED EDGE OF PAVEMENT OR EXISTING CURB LINE IN ALL AREAS WHERE PAVEMENT TO BE REMOVED ABUTS EXISTING PAVEMENT OR CONCRETE TO REMAIN.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DEMOLITION AND OFF-SITE DISPOSAL OF MATERIALS REQUIRED TO COMPLETE THE WORK, EXCEPT FOR WORK NOTED TO BE COMPLETED BY OTHERS.
- UTILITIES SHALL BE TERMINATED AT THE MAIN LINE PER UTILITY COMPANY AND CITY OF PORTSMOUTH STANDARDS. THE CONTRACTOR SHALL REMOVE ALL ABANDONED UTILITIES LOCATED WITHIN THE LIMITS OF WORK UNLESS OTHERWISE NOTED.
- CONTRACTOR SHALL VERIFY ORIGIN OF ALL DRAINS AND UTILITIES PRIOR TO REMOVAL/TERMINATION TO DETERMINE IF DRAINS OR UTILITY IS ACTIVE, AND SERVICES ANY ON OR OFF-SITE STRUCTURE TO REMAIN. THE CONTRACTOR SHALL NOTIFY ENGINEER IMMEDIATELY OF ANY SUCH UTILITY FOUND AND SHALL MAINTAIN THESE UTILITIES UNTIL PERMANENT SOLUTION IS IN PLACE.
- PAVEMENT REMOVAL LIMITS ARE SHOWN FOR CONTRACTOR'S CONVENIENCE. ADDITIONAL PAVEMENT REMOVAL MAY BE REQUIRED DEPENDING ON THE CONTRACTOR'S OPERATION. CONTRACTOR TO VERIFY FULL LIMITS OF PAVEMENT REMOVAL PRIOR TO BID.
- THE CONTRACTOR SHALL REMOVE AND DISPOSE OF ALL EXISTING STRUCTURES, CONCRETE PADS, UTILITIES AND PAVEMENT WITHIN THE WORK LIMITS SHOWN UNLESS SPECIFICALLY IDENTIFIED TO REMAIN. ITEMS TO BE REMOVED INCLUDE BUT ARE NOT LIMITED TO: CONCRETE, PAVEMENT, CURBS, LIGHTING, MANHOLES, CATCH BASINS, UNDER GROUND PIPING, POLES, STAIRS, SIGNS, FENCES, RAMPS, WALLS, BOLLARDS, BUILDING SLABS, FOUNDATION, TREES AND LANDSCAPING.
- REMOVE TREES AND BRUSH AS REQUIRED FOR COMPLETION OF WORK. CONTRACTOR SHALL GRUB AND REMOVE ALL STUMPS WITHIN LIMITS OF WORK AND DISPOSE OF OFF SITE IN ACCORDANCE WITH FEDERAL, STATE, AND LOCAL LAWS AND REGULATIONS.
- CONTRACTOR SHALL PROTECT ALL PROPERTY MONUMENTATION THROUGHOUT DEMOLITION AND CONSTRUCTION OPERATIONS. SHOULD ANY MONUMENTATION BE DISTURBED BY THE CONTRACTOR, THE CONTRACTOR SHALL EMPLOY A NEW HAMPSHIRE LICENSED SURVEYOR TO REPLACE DISTURBED MONUMENTS.
- PROVIDE INLET PROTECTION BARRIERS AT ALL CATCH BASINS/CURB INLETS WITHIN CONSTRUCTION LIMITS AS WELL AS CATCH BASINS/CURB INLETS THAT MAY RECEIVE RUNOFF FROM CONSTRUCTION ACTIVITIES. INLET PROTECTION BARRIERS SHALL BE MAINTAINED FOR THE DURATION OF THE PROJECT. INLET PROTECTION BARRIERS SHALL BE "HIGH FLOW SILT SACK" BY ACF ENVIRONMENTAL OR EQUAL. INSPECT BARRIERS WEEKLY AND AFTER EACH RAIN EVENT OF 0.25 INCHES OR GREATER. CONTRACTOR SHALL COMPLETE A MAINTENANCE INSPECTION REPORT AFTER EACH INSPECTION. SEDIMENT DEPOSITS SHALL BE REMOVED AFTER EACH STORM EVENT OR MORE OFTEN IF THE FABRIC BECOMES CLOGGED OR SEDIMENT HAS ACCUMULATED TO 1/3 THE DESIGN DEPTH OF THE BARRIER.
- THE CONTRACTOR SHALL PAY ALL COSTS NECESSARY FOR TEMPORARY PARTITIONING, BARRICADING, FENCING, SECURITY AND SAFETY DEVICES REQUIRED FOR THE MAINTENANCE OF A CLEAN AND SAFE CONSTRUCTION SITE.
- SAW CUT AND REMOVE PAVEMENT AND CONSTRUCT PAVEMENT TRENCH PATCH FOR ALL UTILITIES TO BE REMOVED AND PROPOSED UTILITIES LOCATED IN EXISTING PAVEMENT AREAS TO REMAIN.
- THE CONTRACTOR SHALL REMOVE AND SALVAGE EXISTING GRANITE CURB FOR REUSE.

**SITE NOTES:**

- PAVEMENT MARKINGS SHALL BE INSTALLED AS SHOWN, INCLUDING PARKING SPACES, STOP BARS, ADA SYMBOLS, PAINTED ISLANDS, FIRE LANES, CROSS WALKS, ARROWS, LEGENDS AND CENTERLINES. ALL MARKINGS EXCEPT CENTERLINE AND MEDIAN ISLANDS TO BE CONSTRUCTED USING WHITE PAVEMENT MARKINGS. ALL THERMOPLASTIC PAVEMENT MARKINGS INCLUDING LEGENDS, ARROWS, CROSSWALKS AND STOP BARS SHALL MEET THE REQUIREMENTS OF AASHTO M249. ALL PAINTED PAVEMENT MARKINGS INCLUDING CENTERLINES, LANE LINES AND PAINTED MEDIANS SHALL MEET THE REQUIREMENTS OF AASHTO M248 TYPE "F".
- ALL PAVEMENT MARKINGS AND SIGNS TO CONFORM TO "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES", "STANDARD ALPHABETS FOR HIGHWAY SIGNS AND PAVEMENT MARKINGS", AND THE AMERICANS WITH DISABILITIES ACT REQUIREMENTS, LATEST EDITIONS.
- ALL PAVEMENT MARKINGS AND SIGNS SHALL CONFORM TO NHDOT STANDARD PLANS, AND APPLICABLE SUPPLEMENTAL DETAILS FOR CONSTRUCTION WITHIN THE US ROUTE 1 RIGHT-OF-WAY.
- SEE DETAILS FOR PAVEMENT MARKINGS, ADA SYMBOLS, SIGNS AND SIGN POSTS.
- CENTERLINES SHALL BE FOUR (4) INCH WIDE YELLOW LINES.
- PAINTED ISLANDS SHALL BE FOUR (4) INCH WIDE DIAGONAL LINES AT 3'-0" O.C. BORDERED BY FOUR (4) INCH WIDE LINES.
- STOP BARS SHALL BE EIGHTEEN (18) INCHES WIDE, WHITE THERMOPLASTIC AND CONFORM TO CURRENT MUTCD STANDARDS.
- CLEAN AND COAT VERTICAL FACE OF EXISTING PAVEMENT AT SAW CUT LINE WITH RS-1 EMULSION IMMEDIATELY PRIOR TO PLACING NEW BITUMINOUS CONCRETE.
- CONTRACTOR TO PROVIDE BACKFILL AND COMPACTION AT CURB LINE AFTER CONCRETE FORMS

- FOR SIDEWALKS AND PADS HAVE BEEN STRIPPED.
- ALL LIGHT POLE BASES NOT PROTECTED BY A RAISED CURB SHALL BE PAINTED YELLOW.
- ALL DIMENSIONS ARE TO THE FACE OF CURB UNLESS OTHERWISE NOTED.

**GRADING AND DRAINAGE NOTES:**

- COMPACTION REQUIREMENTS:  
BELOW PAVED OR CONCRETE AREAS 95%  
TRENCH BEDDING MATERIAL AND SAND BLANKET BACKFILL 95%  
BELOW LOAM AND SEED AREAS 90%  
\* ALL PERCENTAGES OF COMPACTION SHALL BE OF THE MAXIMUM DRY DENSITY AT THE OPTIMUM MOISTURE CONTENT AS DETERMINED AND CONTROLLED IN ACCORDANCE WITH ASTM D-1557, METHOD C FIELD DENSITY TESTS SHALL BE MADE IN ACCORDANCE WITH ASTM D-1556 OR ASTM-2922.
- ALL STORM DRAINAGE PIPES SHALL BE HIGH DENSITY POLYETHYLENE (HANCOR HI-Q, ADS N-12 OR EQUAL) OR RCP CLASS IV, UNLESS OTHERWISE SPECIFIED.
- ADJUST ALL MANHOLES, CATCH BASINS, CURB BOXES, ETC. WITHIN LIMITS OF WORK TO FINISH GRADE.
- CONTRACTOR SHALL PROVIDE A FINISH PAVEMENT SURFACE AND LAWN AREAS FREE OF LOW SPOTS AND PONDING AREAS. CRITICAL AREAS INCLUDE BUILDING ENTRANCES, EXITS, RAMPS AND LOADING DOCK AREAS ADJACENT TO THE BUILDING.
- ALL DISTURBED AREAS NOT TO BE PAVED OR OTHERWISE TREATED SHALL RECEIVE 6" LOAM, SEED FERTILIZER AND MULCH.
- ALL STORM DRAIN CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE NHDOT STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES, LATEST EDITION.
- ALL PROPOSED CATCH BASINS SHALL BE EQUIPPED WITH OIL/GAS SEPARATOR HOODS AND 4' SUMPS.

**EROSION CONTROL NOTES:**

- SEE SHEET C-501 FOR GENERAL EROSION CONTROL NOTES AND DETAILS.

**UTILITY NOTES:**

- COORDINATE ALL UTILITY WORK WITH APPROPRIATE UTILITY COMPANY.  
• WATER - CITY OF PORTSMOUTH  
• ELECTRIC - EVERSOURCE  
• COMMUNICATIONS - FAIRPOINT & COMCAST  
ALL WATER MAIN INSTALLATIONS SHALL BE CLASS 52, CEMENT LINED DUCTILE IRON PIPE. ALL WATER MAIN INSTALLATIONS SHALL BE PRESSURE TESTED AND CHLORINATED AFTER CONSTRUCTION PRIOR TO ACTIVATING THE SYSTEM. CONTRACTOR SHALL COORDINATE CHLORINATION AND TESTING WITH THE CITY OF PORTSMOUTH WATER DEPARTMENT.
- CONNECTION TO EXISTING WATER MAIN SHALL BE CONSTRUCTED TO THE CITY OF PORTSMOUTH STANDARDS.
- EXISTING UTILITIES TO BE REMOVED SHALL BE CAPPED AT THE MAIN AND MEET THE DEPARTMENT OF PUBLIC WORKS STANDARDS FOR CAPPING OF WATER AND SEWER SERVICES.  
ALL ELECTRICAL MATERIAL WORKMANSHIP SHALL CONFORM TO THE NATIONAL ELECTRIC CODE, LATEST EDITION, AND ALL APPLICABLE STATE AND LOCAL CODES.
- THE CONTRACTOR SHALL PROVIDE AND INSTALL ALL MANHOLES, BOXES, FITTINGS, CONNECTORS, COVER PLATES, AND OTHER MISCELLANEOUS ITEMS NOT NECESSARILY DETAILED ON THESE DRAWINGS TO RENDER INSTALLATION OF UTILITIES COMPLETE AND OPERATIONAL.
- A 10-FOOT MINIMUM EDGE TO EDGE HORIZONTAL SEPARATION SHALL BE PROVIDED BETWEEN ALL WATER AND SANITARY SEWER LINES. AN 18-INCH MINIMUM OUTSIDE TO OUTSIDE VERTICAL SEPARATION SHALL BE PROVIDED AT ALL WATER/SANITARY SEWER CROSSINGS.
- SAW CUT AND REMOVE PAVEMENT AND CONSTRUCT PAVEMENT TRENCH PATCH FOR ALL PROPOSED UTILITIES LOCATED IN EXISTING PAVEMENT AREAS TO REMAIN
- HYDRANTS, GATE VALVES, FITTINGS, ETC. SHALL MEET THE REQUIREMENTS OF THE CITY OF PORTSMOUTH.
- CONTRACTOR SHALL COORDINATE ALL ELECTRIC WORK INCLUDING BUT NOT LIMITED TO: CONDUIT CONSTRUCTION, MANHOLE CONSTRUCTION, UTILITY POLE CONSTRUCTION, OVERHEAD WIRE RELOCATION, AND TRANSFORMER CONSTRUCTION WITH POWER COMPANY.

**LANDSCAPE NOTES:**

- THE CONTRACTOR SHALL FURNISH AND PLANT ALL PLANTS IN QUANTITIES AS SHOWN ON THIS PLAN. NO SUBSTITUTIONS WILL BE PERMITTED UNLESS APPROVED BY OWNER. ALL PLANTS SHALL BE NURSERY GROWN.
- ALL PLANTS SHALL BE NURSERY GROWN AND PLANTS AND WORKMANSHIP SHALL CONFORM TO THE AMERICAN ASSOCIATION OF NURSERYMEN STANDARDS, INCLUDING BUT NOT LIMITED TO SIZE, HEALTH, SHAPE, ETC., AND SHALL BE SUBJECT TO THE APPROVAL OF THE LANDSCAPE ARCHITECT PRIOR TO ARRIVAL ON-SITE AND AFTER PLANTING.
- PLANT STOCK SHALL BE GROWN WITHIN THE HARDINESS ZONES 4 THRU 7 ESTABLISHED BY THE PLANT HARDINESS ZONE MAP, MISCELLANEOUS PUBLICATIONS NO. 814, AGRICULTURAL RESEARCH SERVICE, UNITED STATES DEPARTMENT AGRICULTURE, LATEST REVISION.
- PLANT MATERIAL SHALL BARE THE SAME RELATIONSHIP TO FINISHED GRADE AS TO THE ORIGINAL PLANTING GRADE PRIOR TO DIGGING.
- THE NUMBER OF EACH INDIVIDUAL PLANT TYPE AND SIZE PROVIDED IN THE PLANT LIST OR ON THE PLAN IS FOR THE CONTRACTOR'S CONVENIENCE ONLY. IF A DISCREPANCY EXISTS BETWEEN THE NUMBER OF PLANTS ON THE LABEL AND THE NUMBER OF SYMBOLS SHOWN ON THE DRAWINGS, THE GREATER NUMBER SHALL APPLY.
- NO SUBSTITUTION OF PLANT MATERIALS WILL BE ALLOWED WITHOUT THE PRIOR WRITTEN APPROVAL OF THE OWNER'S REPRESENTATIVE.
- THE CONTRACTOR SHALL LOCATE, VERIFY AND MARK ALL EXISTING AND NEWLY INSTALLED UNDERGROUND UTILITIES PRIOR TO ANY LAWN WORK OR PLANTING. ANY CONFLICTS WHICH MIGHT OCCUR BETWEEN PLANTING AND UTILITIES SHALL IMMEDIATELY BE REPORTED TO THE OWNER SO THAT ALTERNATE PLANTING LOCATIONS CAN BE DETERMINED.
- ALL DISTURBED AREAS NOT TO BE PAVED OR OTHERWISE TREATED, SHALL RECEIVE 6" OF LOAM AND SEED. NO FILL SHALL BE PLACED IN ANY WETLAND AREA.
- THREE INCHES (3") OF BARK MULCH IS TO BE USED AROUND THE TREE AND SHRUB PLANTING AS SPECIFIED IN THE DETAILS. WHERE BARK MULCH IS TO BE USED IN A CURBED ISLAND THE BARK MULCH SHALL MEET THE TOP INSIDE EDGE OF THE CURB. ALL OTHER AREAS SHALL RECEIVE 6" INCHES OF LOAM AND SEED.
- LANDSCAPING SHALL BE LOCATED WITHIN 150 FT OF EXTERIOR HOSE ATTACHMENT OR SHALL BE PROVIDED WITH AN IRRIGATION SYSTEM.
- SEE PLANTING DETAILS AND SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
- TREE STAKES SHALL REMAIN IN PLACE FOR NO LESS THAN 6 MONTHS AND NO MORE THAN 1 YEAR.
- PLANTING SHALL BE COMPLETED FROM APRIL 15TH THROUGH OCTOBER 1ST. NO PLANTING DURING JULY AND AUGUST UNLESS SPECIAL PROVISIONS ARE MADE FOR DROUGHT.
- PARKING AREA PLANTED ISLANDS TO HAVE MINIMUM OF 1'-0" TOPSOIL PLACED TO WITHIN 3 INCHES OF THE TOP OF CURB ELEVATION. REMOVE ALL CONSTRUCTION DEBRIS BEFORE PLACING TOPSOIL.
- TREES SHALL BE PRUNED IN ACCORDANCE WITH THE LATEST EDITION OF ANSI A300 "TREES, SHRUBS AND OTHER WOOD PLANT MAINTENANCE STANDARD PRACTICES.
- ALL PLANTS SHALL BE WATERED THOROUGHLY TWICE DURING THE FIRST 24 HOUR PERIOD AFTER PLANTING. ALL PLANTS SHALL BE WATERED WEEKLY, OR MORE OFTEN, IF NECESSARY DURING THE FIRST GROWING SEASON. LANDSCAPE CONTRACTOR SHALL COORDINATE WATERING SCHEDULE WITH OWNER DURING THE ONE (1) YEAR GUARANTEE PERIOD.
- EXISTING TREES AND SHRUBS SHOWN ON THE PLAN ARE TO REMAIN UNDISTURBED. ALL EXISTING TREES AND SHRUBS SHOWN TO REMAIN ARE TO BE PROTECTED WITH A 4-FOOT SNOW FENCE PLACED AT THE DRIP LINE OF THE BRANCHES OR AT 8 FEET MINIMUM FROM THE TREE TRUNK. ANY EXISTING TREE OR SHRUB SHOWN TO REMAIN, WHICH IS REMOVED DURING CONSTRUCTION, SHALL BE REPLACED BY A TREE OF COMPARABLE SIZE AND SPECIES TREE OR SHRUB.
- THE CONTRACTOR SHALL GUARANTEE ALL PLANTINGS TO BE IN GOOD HEALTHY, FLOURISHING AND ACCEPTABLE CONDITION FOR A PERIOD OF ONE (1) YEAR BEGINNING AT THE DATE OF

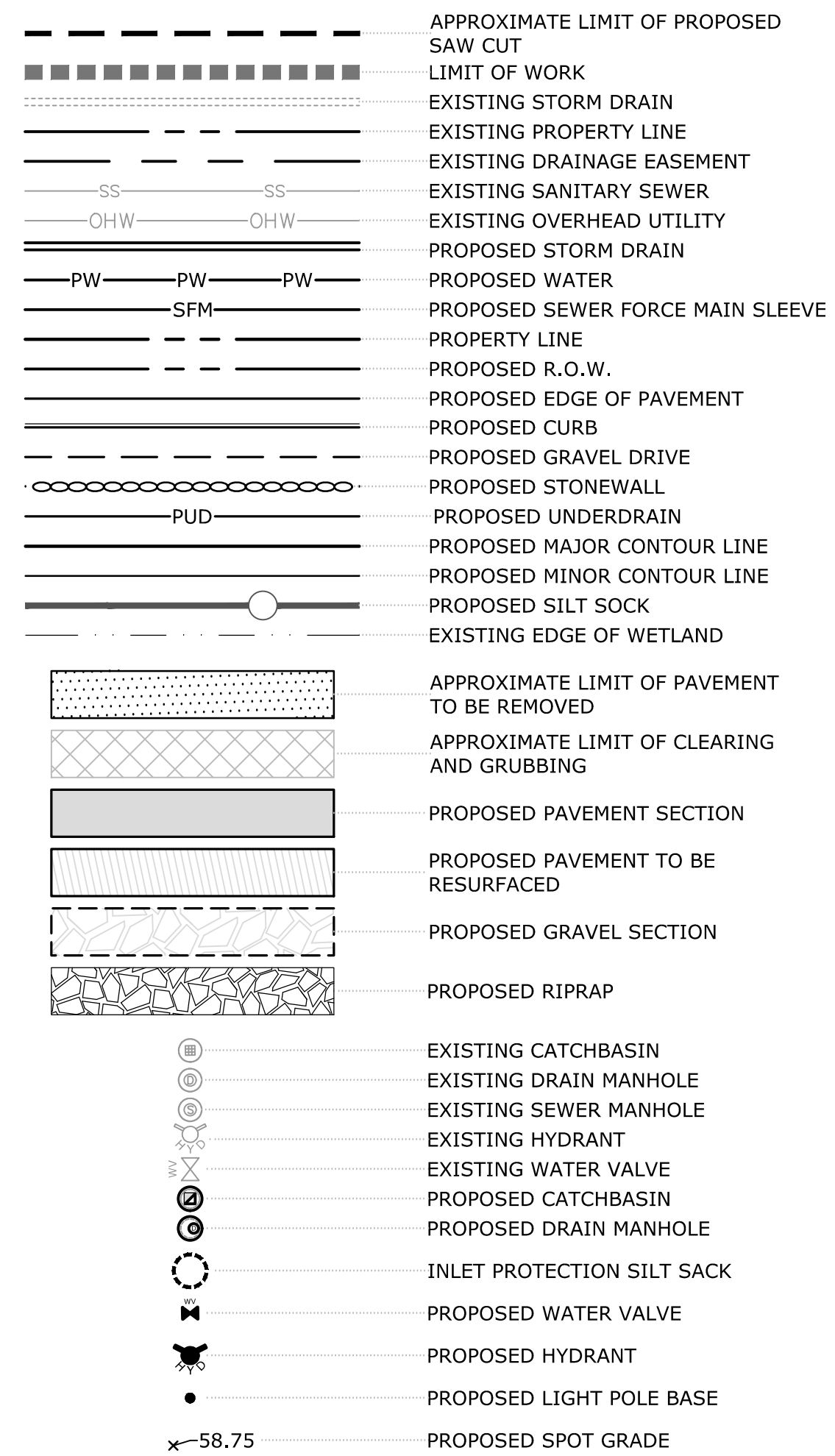
ACCEPTANCE OF SUBSTANTIAL COMPLETION. ALL GRASSES, TREES AND SHRUBS THAT, IN THE OPINION OF THE LANDSCAPE ARCHITECT, SHOW LESS THAN 80% HEALTHY GROWTH AT THE END OF ONE YEAR PERIOD SHALL BE REPLACED BY THE CONTRACTOR.

- UPON EXPIRATION OF THE CONTRACTOR'S ONE YEAR GUARANTEE PERIOD, THE OWNER SHALL BE RESPONSIBLE FOR LANDSCAPE MAINTENANCE INCLUDING WATERING DURING PERIODS OF DROUGHT
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING ALL PLANTING AND LAWNS AGAINST DAMAGE FROM ONGOING CONSTRUCTION. THIS PROTECTION SHALL BEGIN AT THE TIME THE PLANT IS INSTALLED AND CONTINUE UNTIL THE FORMAL ACCEPTANCE OF ALL THE PLANTINGS.
- PRE-PURCHASE PLANT MATERIAL AND ARRANGE FOR DELIVERY TO MEET PROJECT SCHEDULE AS REQUIRED IT MAY BE NECESSARY TO PRE-DIG CERTAIN SPECIES WELL IN ADVANCE OF ACTUAL PLANTING DATES.

**REFERENCE PLANS:**

- "TOPOGRAPHIC WORKSHEET" PREPARED BY DOUCET SURVEY, INC., DATED JULY 20, 2018.

**LEGEND**



**ABBREVIATIONS**

TBR	TO BE REMOVED
TYP	TYPICAL
COORD	COORDINATE
VIF	VERIFY IN FIELD
CONST	CONSTRUCT
30'R	PROPOSED CURB RADIUS
VGC	PROPOSED VERTICAL GRANITE CURB
SGC	PROPOSED SLOPED GRANITE CURB
DSYL	DOUBLE SOLID YELLOW LINE
SSWL	SINGLE SOLID WHITE LINE

**Longmeadow Road Extension**

**City of Portsmouth**

**Portsmouth, New Hampshire**

Portsmouth #42350  
X-A004(818)

E	10/21/2020	NHDOT Comments
D	3/4/2019	Revised AoT Submission
C	2/11/2019	P.B. Submission
B	1/7/2019	P.D. Submission
A	1/7/2019	AoT Submission
MARK	DATE	DESCRIPTION
PROJECT NO: P-0714-005		
DATE: October 21, 2019		
FILE: P-0714-005-C-DSGN.dwg		
DRAWN BY:	NAH/CLK	
CHECKED:	PMC	
APPROVED:	BLM	

**GENERAL NOTES, LEGEND & ABBREVIATIONS**

SCALE: AS SHOWN

**C-100**

**LEGEND**

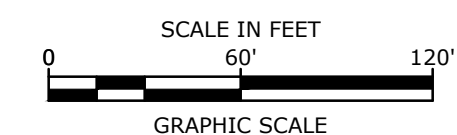
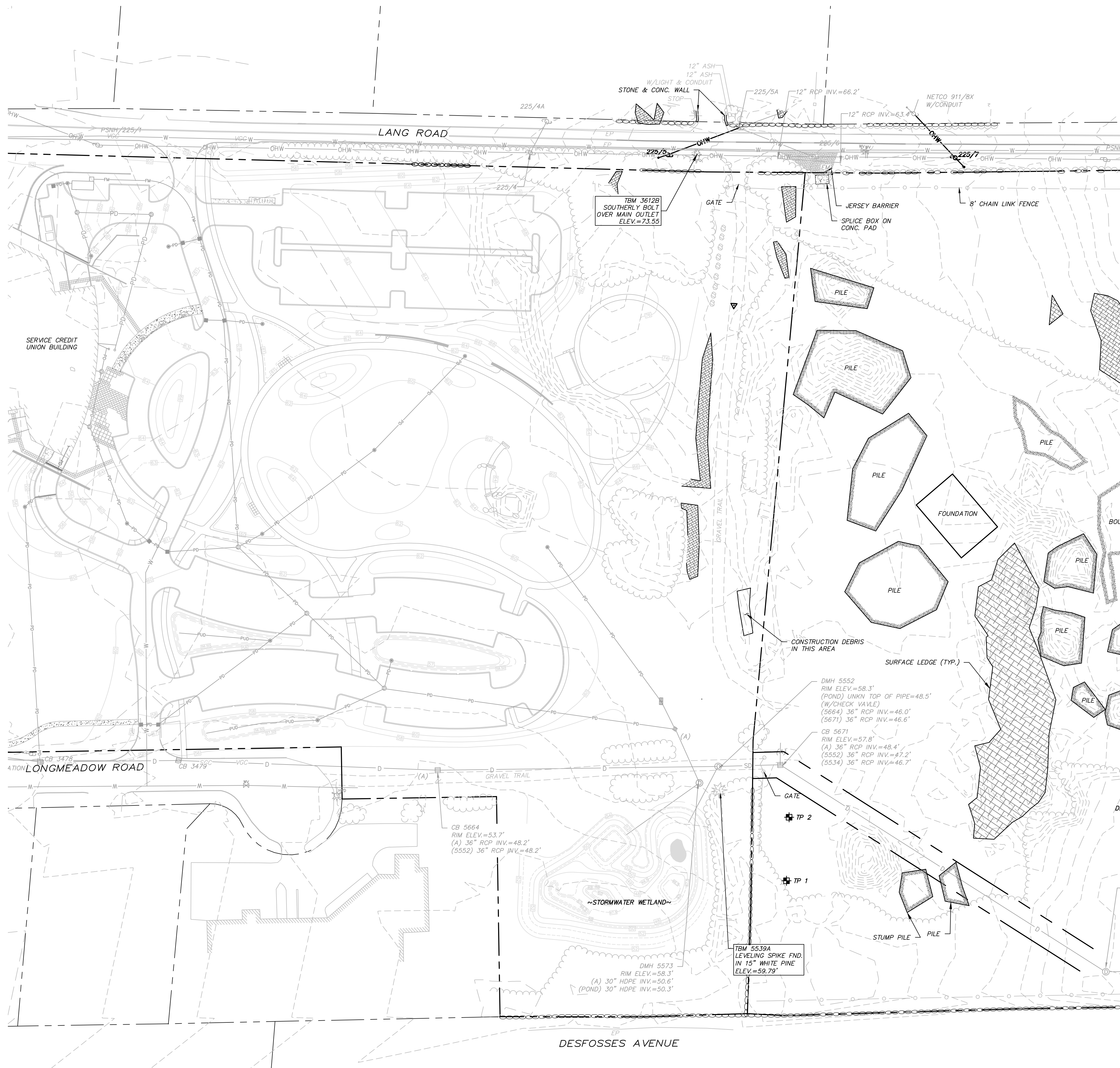
---	LOT LINE
- - -	APPROXIMATE ABUTTERS LOT LINE
○ ○ ○ ○	STONE WALL
○ ○ ○ ○	REMNANT STONE WALL
○ ○ ○ ○	CHAIN LINK FENCE
○ ○ ○ ○	OVERHEAD WIRE
○ ○ ○ ○	SD DRAIN LINE
○ ○ ○ ○	MAJOR CONTOUR LINE
○ ○ ○ ○	MINOR CONTOUR LINE
○ ○ ○ ○	TREE LINE
○ ○ ○ ○	EDGE OF WETLAND
○ ○ ○ ○	STREAM
▨	CONCRETE
▨	CRUSHED STONE
○	UTILITY POLE
○	UTILITY POLE & GUY WIRE
○	SIGN
○	POST
○	FIRE HYDRANT
○	WATER GATE VALVE
○	CATCH BASIN
○	DRAIN MANHOLE
○	FLARED END SECTION
○	WETLAND AREA
○	CONIFEROUS TREE
○	DECIDUOUS TREE
○	LEDGE OUTCROP
○	CONC.
○	EP
○	EDGE OF PAVEMENT

**NOTES:**

1. REFERENCE: PROPOSED LONGMEADOW ROAD EXTENSION
2. FIELD SURVEY PERFORMED BY DOUCET SURVEY DURING DECEMBER 2015 USING A TRIMBLE 5603 TOTAL STATION AND A TRIMBLE R8 SURVEY GRADE GPS UNIT WITH A TRIMBLE TSC3 DATA COLLECTOR AND A SOKKIA B21 AUTO LEVEL AND DURING JUNE & JULY 2018 USING A TRIMBLE S6 TOTAL STATION WITH A TRIMBLE TSC3 DATA COLLECTOR AND A SOKKIA B21 AUTO LEVEL. TRAVERSE ADJUSTMENT BASED ON LEAST SQUARE ANALYSIS. ADDITIONAL SURVEY PERFORMED ON SEPT. 14, 2020.
3. HORIZONTAL DATUM BASED ON PLAN REFERENCE 1.
4. VERTICAL DATUM IS BASED ON NGVD 29 (SURVEY DISK "GPS ROBE, 379-0870").
5. PROPER FIELD PROCEDURES WERE FOLLOWED IN ORDER TO GENERATE CONTOURS AT 2' INTERVALS. ANY MODIFICATION OF THIS INTERVAL WILL DIMINISH THE INTEGRITY OF THE DATA, AND DOUCET SURVEY, INC. WILL NOT BE RESPONSIBLE FOR ANY SUCH ALTERATION PERFORMED BY THE USER.
6. THE ACCURACY OF MEASURED UTILITY INVERTS AND PIPE SIZES/TYPES IS SUBJECT TO NUMEROUS FIELD CONDITIONS, INCLUDING: THE ABILITY TO MAKE VISUAL OBSERVATIONS, DIRECT ACCESS TO THE VARIOUS ELEMENTS, MANHOLE CONFIGURATION, ETC.
7. ALL ELECTRIC, GAS, TEL. WATER, SEWER AND DRAIN SERVICES ARE SHOWN IN SCHEMATIC FASHION, THEIR LOCATIONS ARE NOT PRECISE OR NECESSARILY ACCURATE. NO WORK WHATSOEVER SHALL BE UNDERTAKEN ON THIS SITE USING THIS PLAN TO LOCATE THE ABOVE SERVICES. CONSULT WITH THE PROPER AUTHORITIES CONCERNED WITH THE SUBJECT SERVICE LOCATIONS FOR INFORMATION REGARDING SUCH. CALL DIG-SAFE AT 1-888-DIG-SAFE.

**REFERENCE PLANS:**

1. "TOPOGRAPHIC PLAN FOR SERVICE CREDIT UNION OF 2995 LAYAFAYETTE ROAD/US ROUTE 1, PORTSMOUTH, NEW HAMPSHIRE" DATED JANUARY 8, 2010 BY DOUCET SURVEY, INC.
2. "LOT LINE RELOCATION PLAN FOR RALPH'S TRUCK SALES, INC., ET AL" DATED AUGUST 26, 1999 BY MILLETTE, SPRAGUE & COLWELL, INC. R.C.R.D. PLAN D-27623.



**Longmeadow Road Extension**

City of Portsmouth

Portsmouth, New Hampshire

Portsmouth #42350  
X-A004(818)

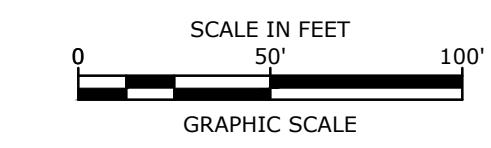
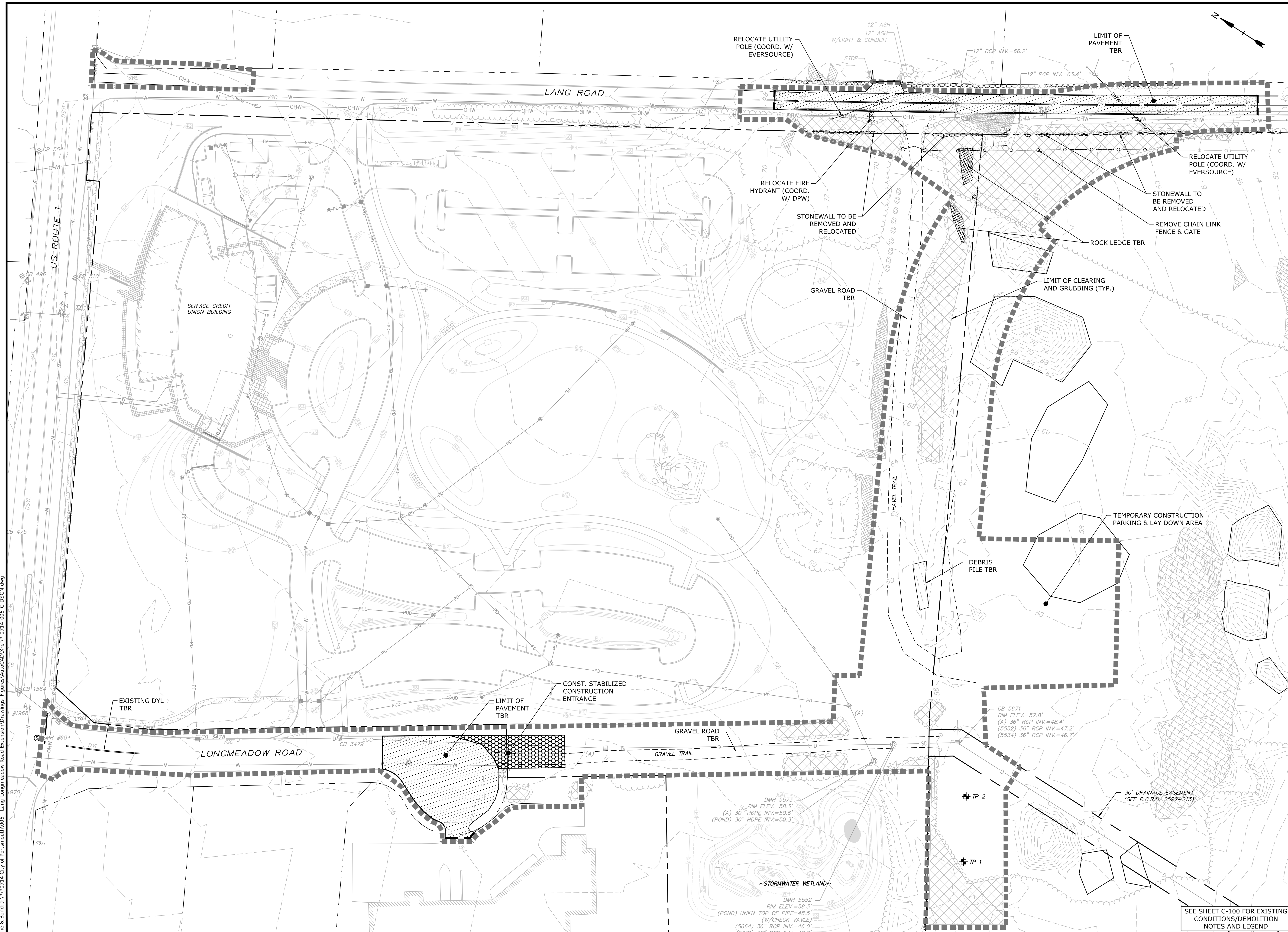
MARK	DATE	DESCRIPTION
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A	1/7/2019	AoT Submission

PROJECT NO: P-0714-005  
DATE: October 21, 2019  
FILE: P-0714-005-V-SURV.dwg  
DRAWN BY: NAH/CLK  
CHECKED: PMC  
APPROVED: BLM

**EXISTING CONDITIONS PLAN**

SCALE: AS SHOWN

**C-101**



**Longmeadow Road Extension**

City of Portsmouth

Portsmouth, New Hampshire

Portsmouth #42350  
X-A004(818)

MARK	DATE	DESCRIPTION
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**DEMOLITION PLAN**

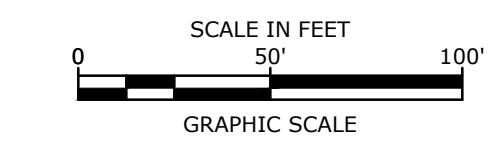
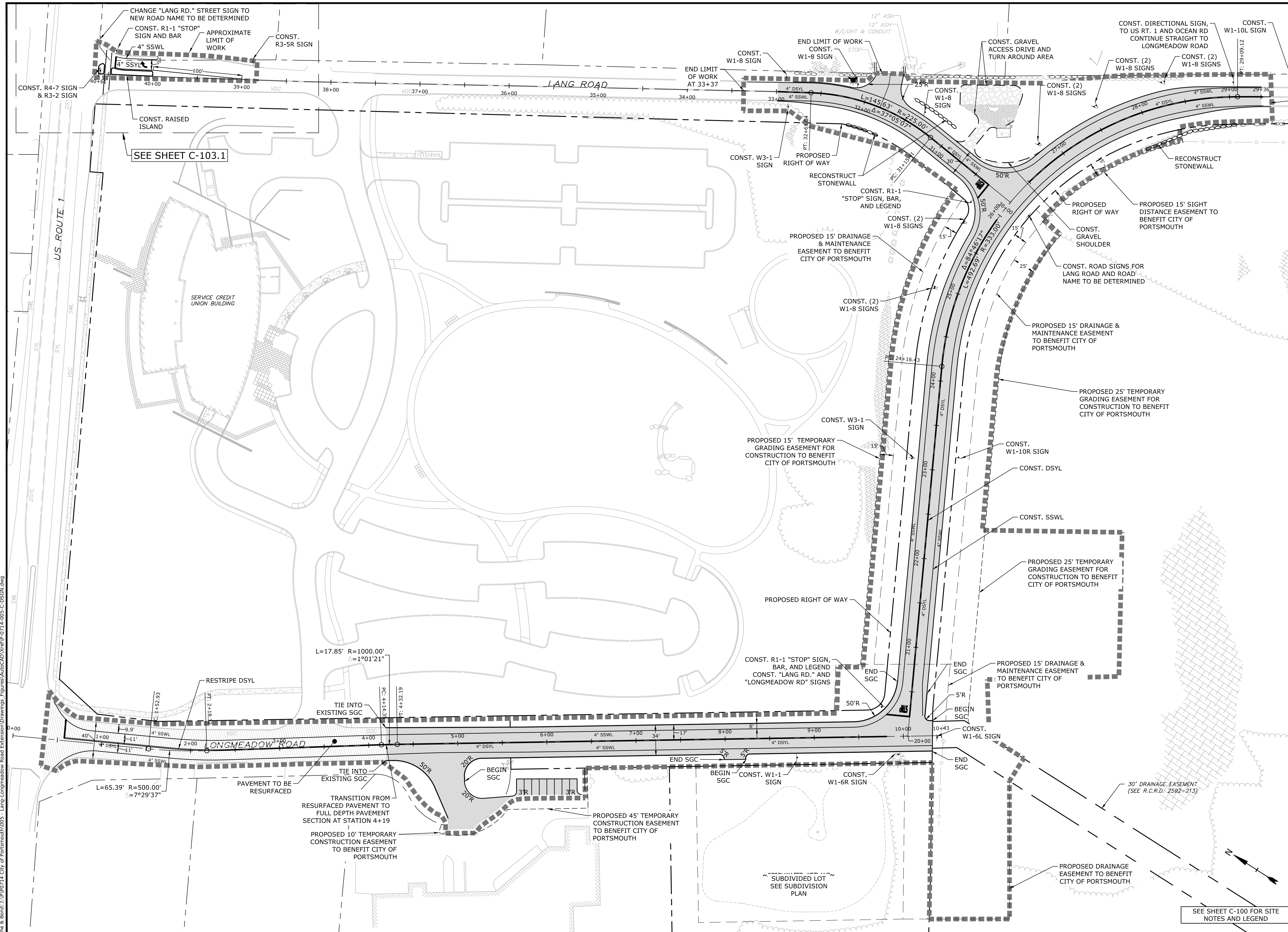
SCALE: AS SHOWN

**C-102**

Last Saved: 10/23/2020 9:05pm By: Ckrzcnk  
 Plotted On: Oct 23, 2020 9:05pm  
 Tighe & Bond 210 Pop 24 City of Portsmouth 005 - Lang - Longmeadow Road Extension Drawings - Figures AutoCAD Vref P-0714-005-C-DSGN.dwg

SEE SHEET C-100 FOR EXISTING CONDITIONS/DEMOLITION NOTES AND LEGEND





# Longmeadow Road Extension

City of Portsmouth

Portsmouth, New Hampshire

Portsmouth #42350  
X-A004(818)

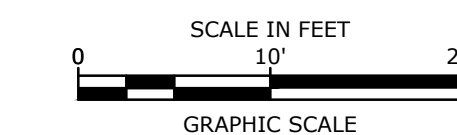
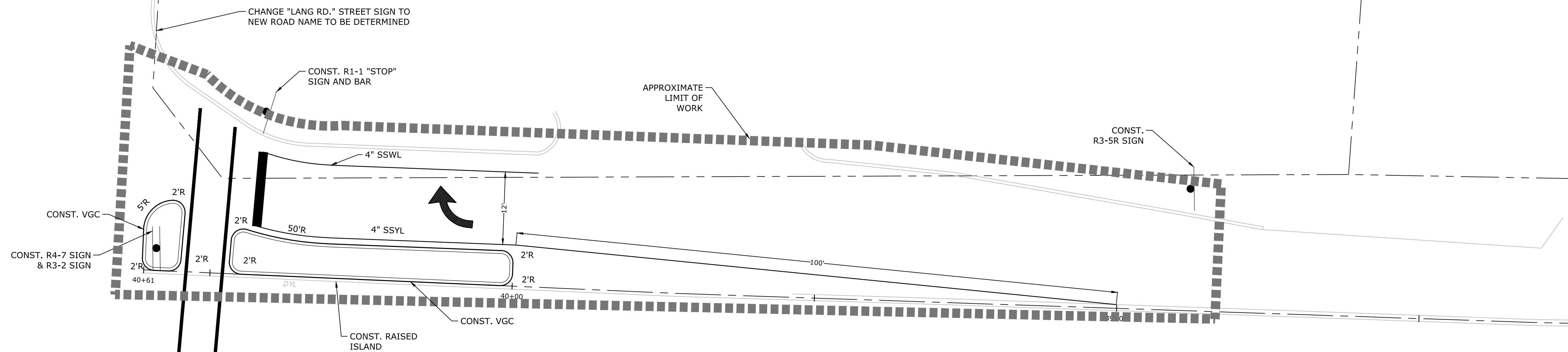
MARK	DATE	DESCRIPTION
E	10/21/2020	NHDOT Comments
D	3/4/2019	Revised AoT Submission
C	2/11/2019	P.B. Submission
B	1/7/2019	P.D. Submission
A	1/7/2019	AoT Submission

PROJECT NO: P-0714-005  
DATE: October 21, 2019  
FILE: P-0714-005-C-DSGN.dwg  
DRAWN BY: NAH/CLK  
CHECKED: PMC  
APPROVED: BLM

## OVERALL ROADWAY PLAN

SCALE: AS SHOWN

Last Saved: 10/23/2020 3:35pm By: Ckrzulk  
 Printed On: Oct 23, 2020 3:35pm  
 Tighe & Bond 210 Pop 24 City of Portsmouth 005 - Lang-Longmeadow Road Extension Drawings - Figures/AutoCAD/VeriP-0714-005-C-DSGN.dwg



**Longmeadow Road Extension**

City of Portsmouth

Portsmouth, New Hampshire

Portsmouth #42350  
X-A004(818)

MARK	DATE	DESCRIPTION
E	10/21/2020	NHDOT Comments
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A	1/7/2019	AoT Submission

PROJECT NO: P-0714-005  
DATE: October 21, 2019

FILE: P-0714-005-C-DSGN.dwg

DRAWN BY: NAH/CJK

CHECKED: PMC

APPROVED: BLM

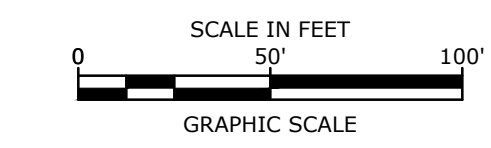
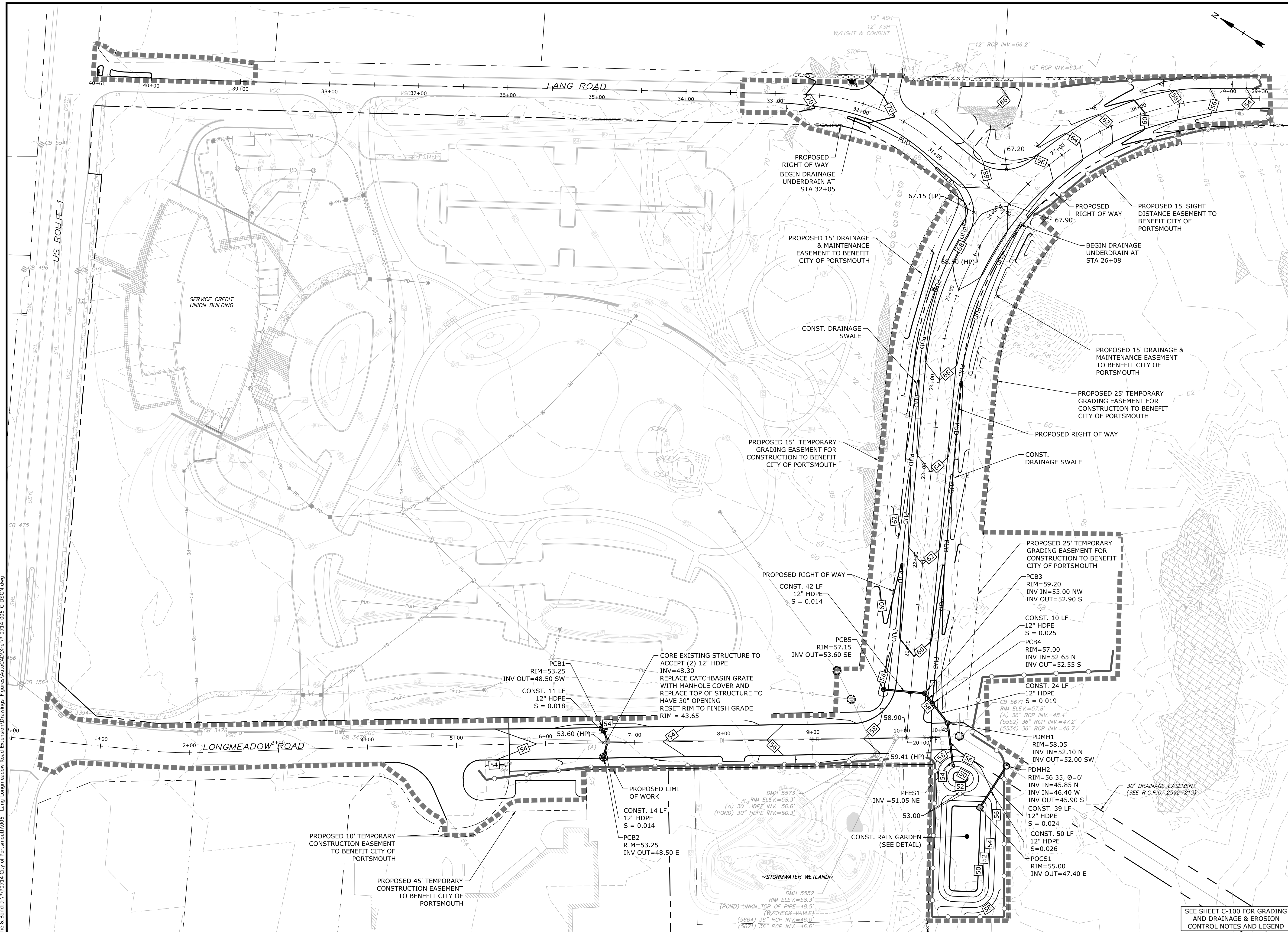
**PROPOSED ROADWAY PLAN**

SCALE: AS SHOWN

**C-103.1**

Last Saved: 10/23/2020 9:09pm By: Ckrzcnk  
 Plotted On: OCT 23, 2020 9:09pm By: Ckrzcnk  
 Title & Content: P-0714 City of Portsmouth 005 - Lang - Longmeadow Road Extension Drawings - Figures/AutoCAD/VP/P-0714-005-C-DSGN.dwg

SEE SHEET C-100 FOR SITE NOTES AND LEGEND



### Longmeadow Road Extension

City of Portsmouth

Portsmouth, New Hampshire

Portsmouth #42350  
X-A004(818)

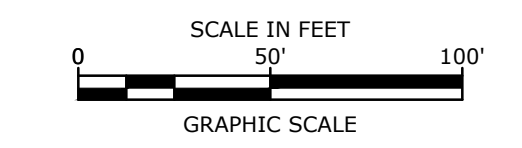
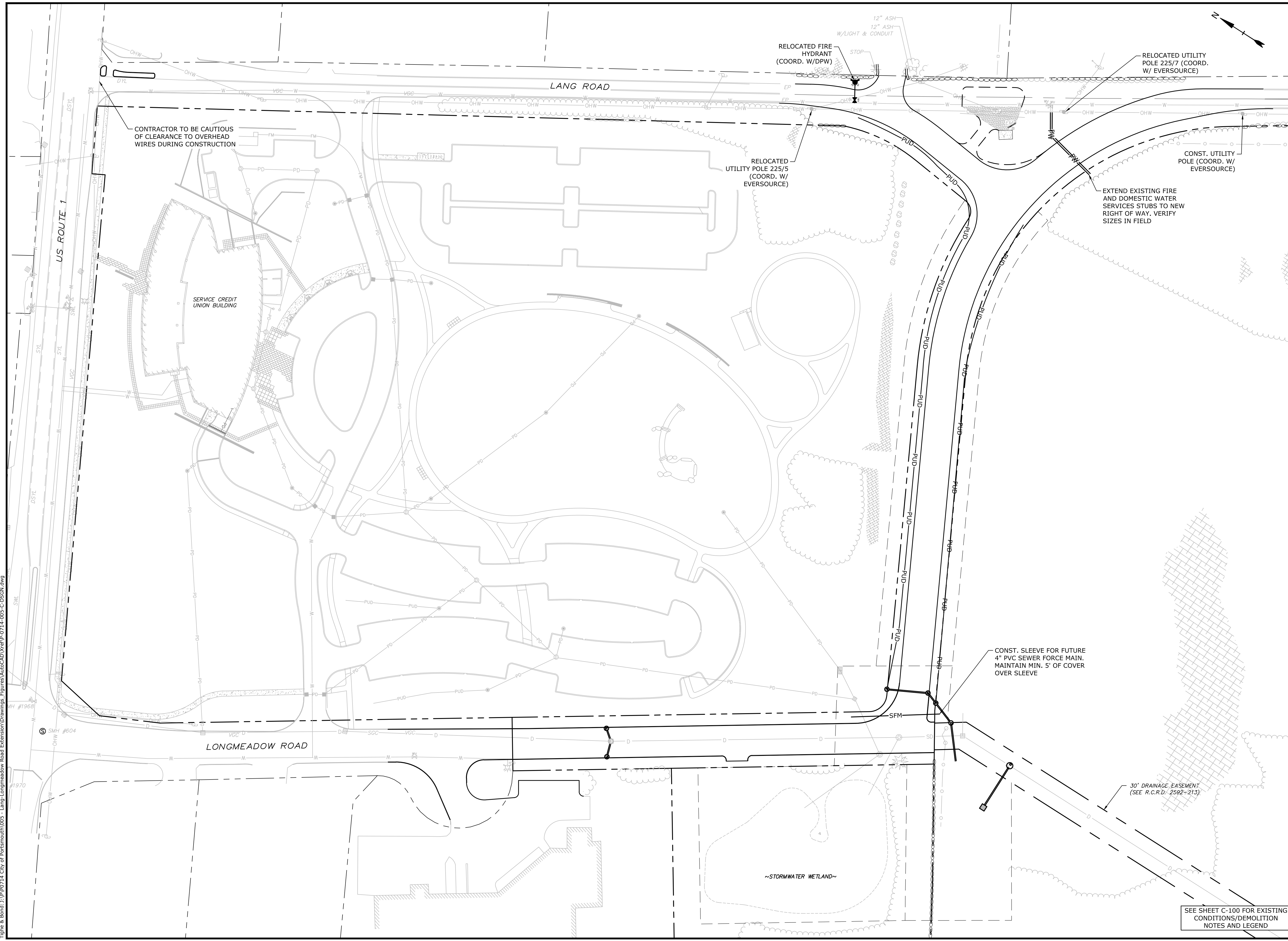
MARK	DATE	DESCRIPTION
E	10/21/2020	NHDOT Comments
D	3/4/2019	Revised AOT Submission
C	2/11/2019	P.B. Submission
B	1/7/2019	P.D. Submission
A	1/7/2019	AoT Submission

PROJECT NO:	P-0714-005
DATE:	October 21, 2019
FILE:	P-0714-005-C-DSGN.dwg
DRAWN BY:	NAH/CLK
CHECKED:	PMC
APPROVED:	BLM

### GRADING, DRAINAGE, & EROSION CONTROL PLAN

SCALE: AS SHOWN

Last Saved: 10/23/2020 10:23:31 AM By: Ckrzulk  
 Printed On: Oct 23, 2020 10:23:31 AM  
 Tighe & Bond 210 Pop 24 City of Portsmouth 0305 - Lang - Longmeadow Road Extension Drawings - Figures/autocad/Drawings/P-0714-005-C-DSGN.dwg



**Longmeadow Road Extension**

City of Portsmouth

Portsmouth, New Hampshire

Portsmouth #42350  
X-A004(818)

MARK	DATE	DESCRIPTION
E	10/21/2020	NHDOT Comments
D	3/4/2019	Revised AoT Submission
C	2/11/2019	P.B. Submission
B	1/7/2019	P.D. Submission
A	1/7/2019	AoT Submission

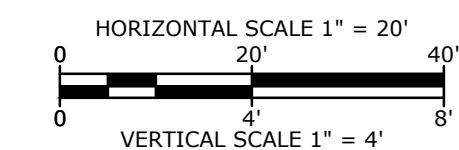
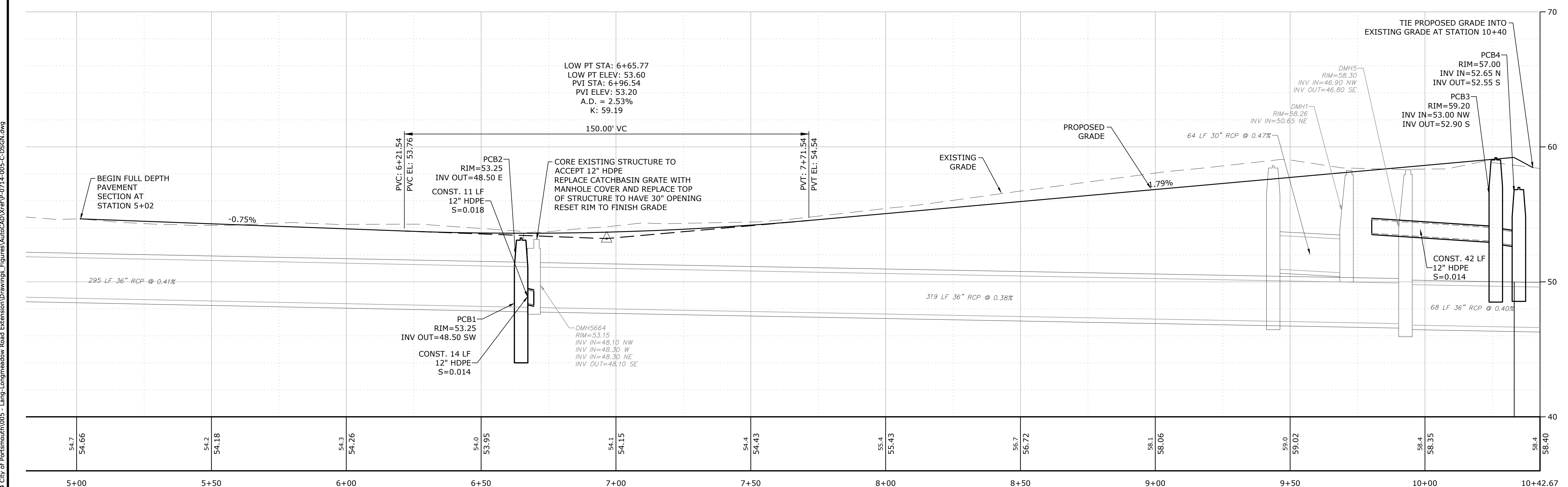
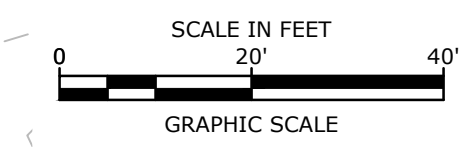
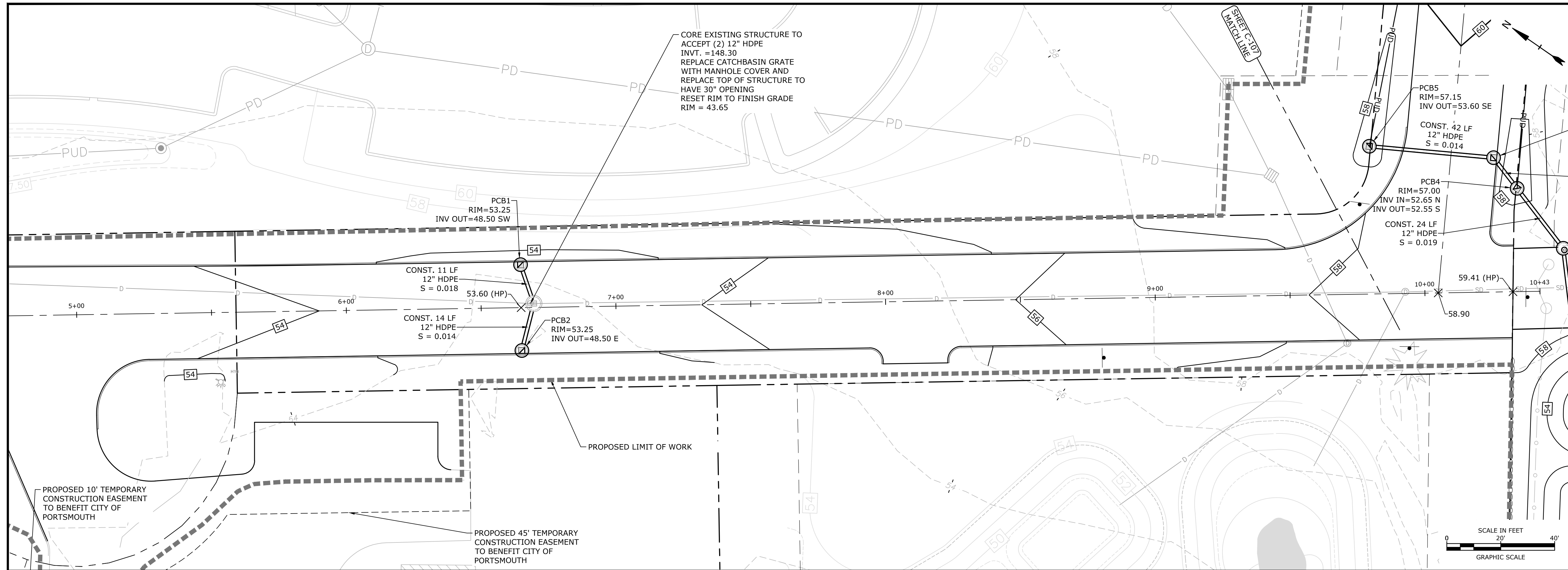
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DATE:	October 21, 2019
FILE:	P-0714-005-C-DSGN.dwg
DRAWN BY:	NAH/CLK
CHECKED:	PMC
APPROVED:	BLM

UTILITIES PLAN

SCALE: AS SHOWN

C-105

Last Saved: 10/21/2020 11:29am By: CKrzuik  
 Plotted On: Oct 21, 2020 11:29am By: CKrzuik  
 Tighe & Bond 210 Pop 24 City of Portsmouth 005 - Lang - Longmeadow Road Extension Drawings - Figures AutoCAD Vref P-0714-005-C-DSGN.dwg



**Longmeadow Road Extension**

City of Portsmouth

Portsmouth, New Hampshire

Portsmouth #42350  
X-A004(818)

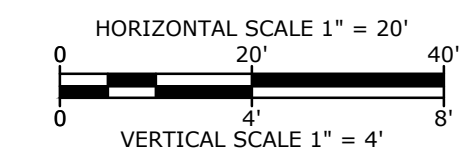
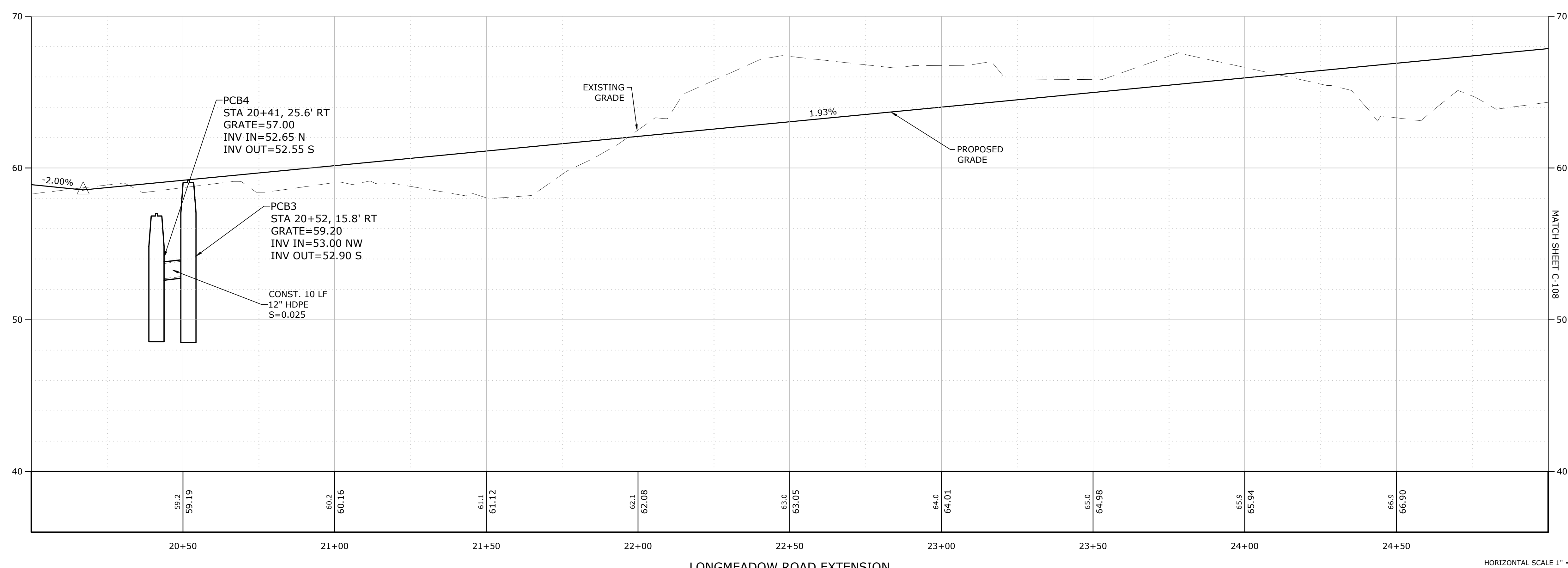
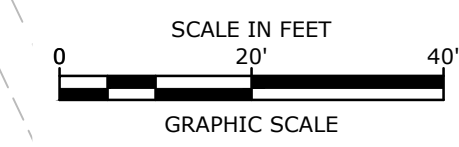
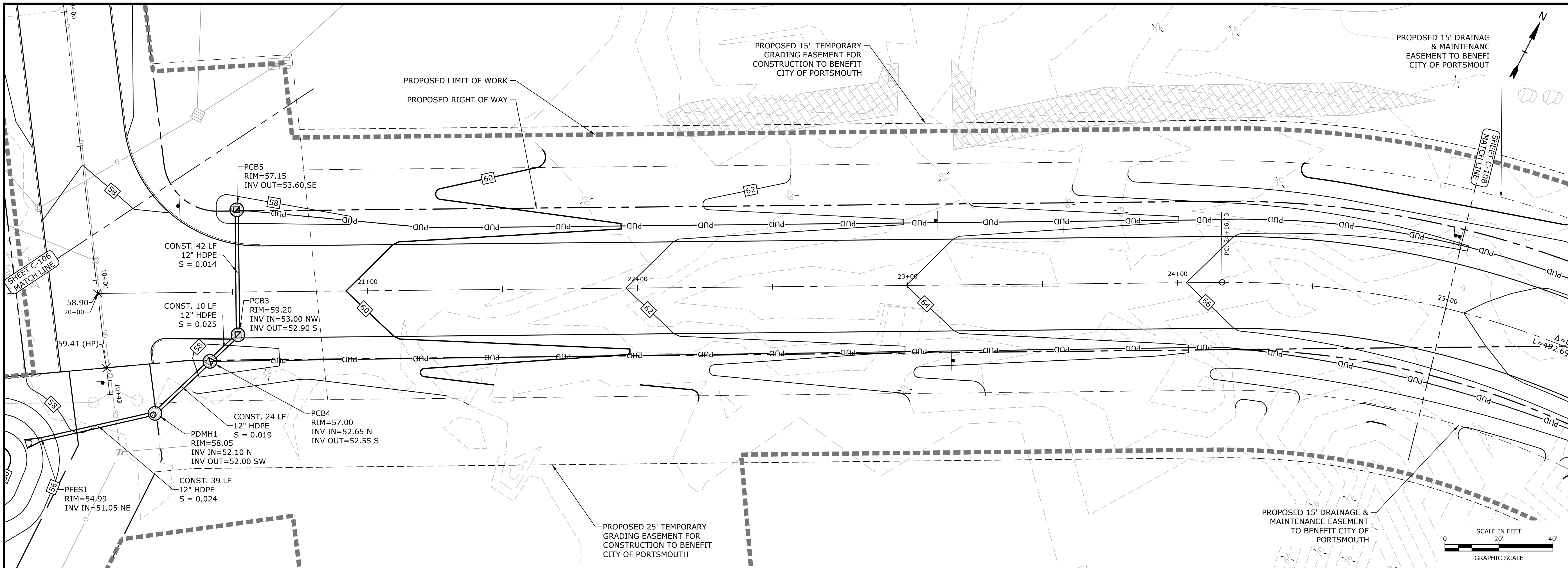
MARK	DATE	DESCRIPTION
E	10/21/2020	NHDOT Comments
D	3/4/2019	Revised AOT Submission
C	2/11/2019	P.B. Submission
B	1/7/2019	P.D. Submission
A	1/7/2019	AoT Submission

PROJECT NO:	P-0714-005
DATE:	October 21, 2019
FILE:	P-0714-005-C-DSGN.dwg
DRAWN BY:	NAH/CIK
CHECKED:	PMC
APPROVED:	BLM

**LONGMEADOW ROAD PLAN & PROFILE**

SCALE: AS SHOWN

Last Saved: 10/23/2020 2:25pm By: Ckrzulk  
 Plotted On: Oct 23, 2020 2:25pm  
 Tighe & Bond 210 Pop 24 City of Portsmouth 005 - Lang - Longmeadow Road Extension Drawings - Figures AutoCAD Vref P-0714-005-C-DSGN.dwg



**Longmeadow Road Extension**

City of Portsmouth

Portsmouth, New Hampshire

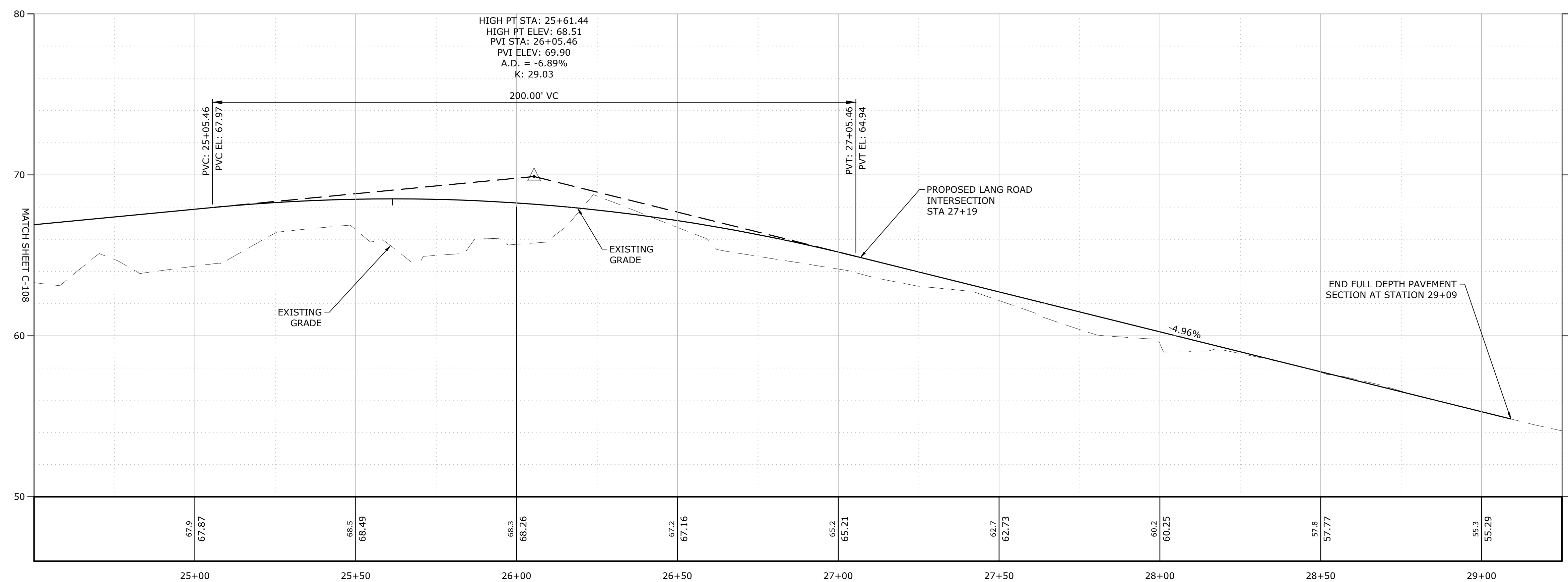
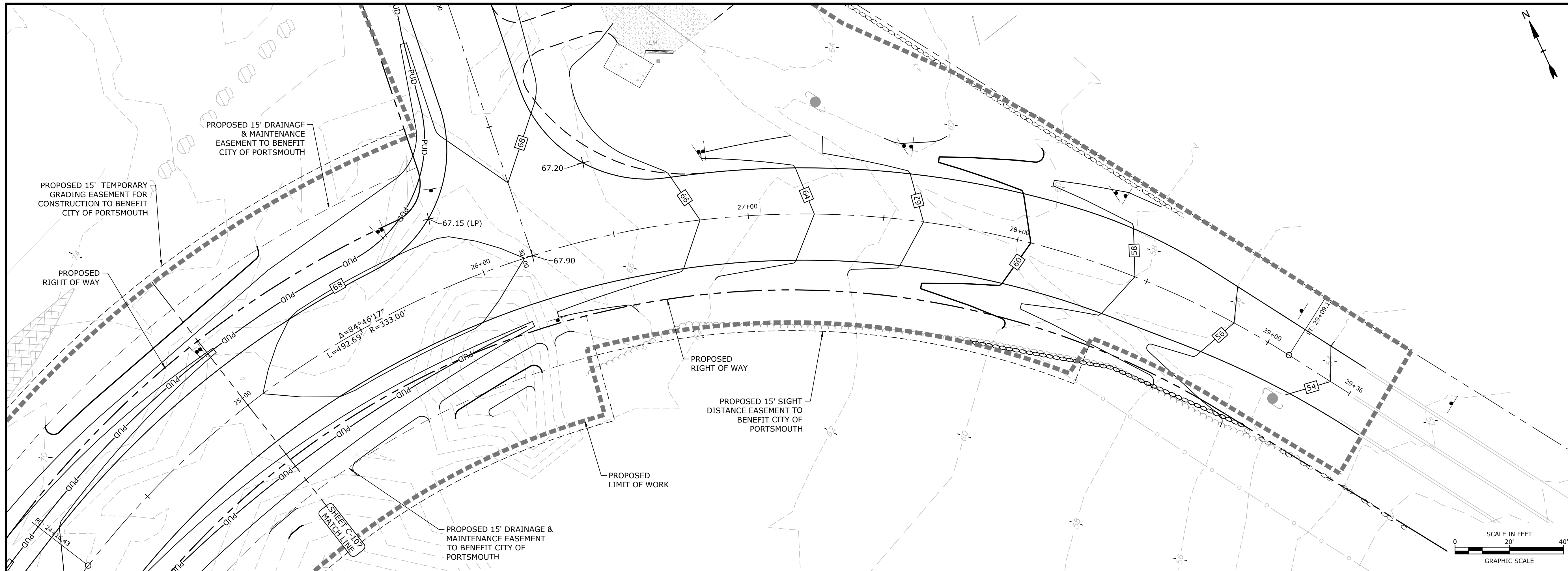
Portsmouth #42350  
X-A004(818)

MARK	DATE	DESCRIPTION
E	10/21/2020	NHDOT Comments
D	3/4/2019	Revised AoT Submission
C	2/11/2019	P.B. Submission
B	1/7/2019	P.D. Submission
A	1/7/2019	AoT Submission
PROJECT NO:		P-0714-005
DATE:		October 21, 2019
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CHECKED:		PMC
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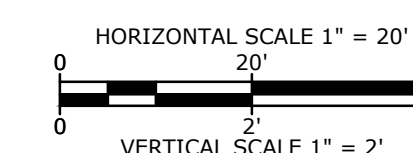
**LONGMEADOW ROAD EXTENSION PLAN & PROFILE**

SCALE: AS SHOWN

Last Saved: 10/23/2020 9:22:27pm By: Ckrzcnk  
 Plotted On: Oct 23, 2020 10:22:27pm By: Ckrzcnk  
 Figure & Sheet: P-0714-005-C-DSGN.dwg  
 Figure & Sheet: P-0714-005-C-DSGN.dwg



LONGMEADOW ROAD EXTENSION - LANG ROAD



**Longmeadow Road Extension**

City of Portsmouth

Portsmouth, New Hampshire

Portsmouth #42350  
X-A004(818)

MARK	DATE	DESCRIPTION
E	10/21/2020	NHDOT Comments
D	3/4/2019	Revised AoT Submission
C	2/11/2019	P.B. Submission
B	1/7/2019	P.D. Submission
A	1/7/2019	AoT Submission

PROJECT NO: P-0714-005  
DATE: October 21, 2019

FILE: P-0714-005-C-DSGN.dwg

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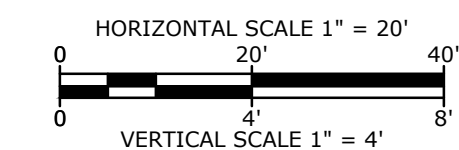
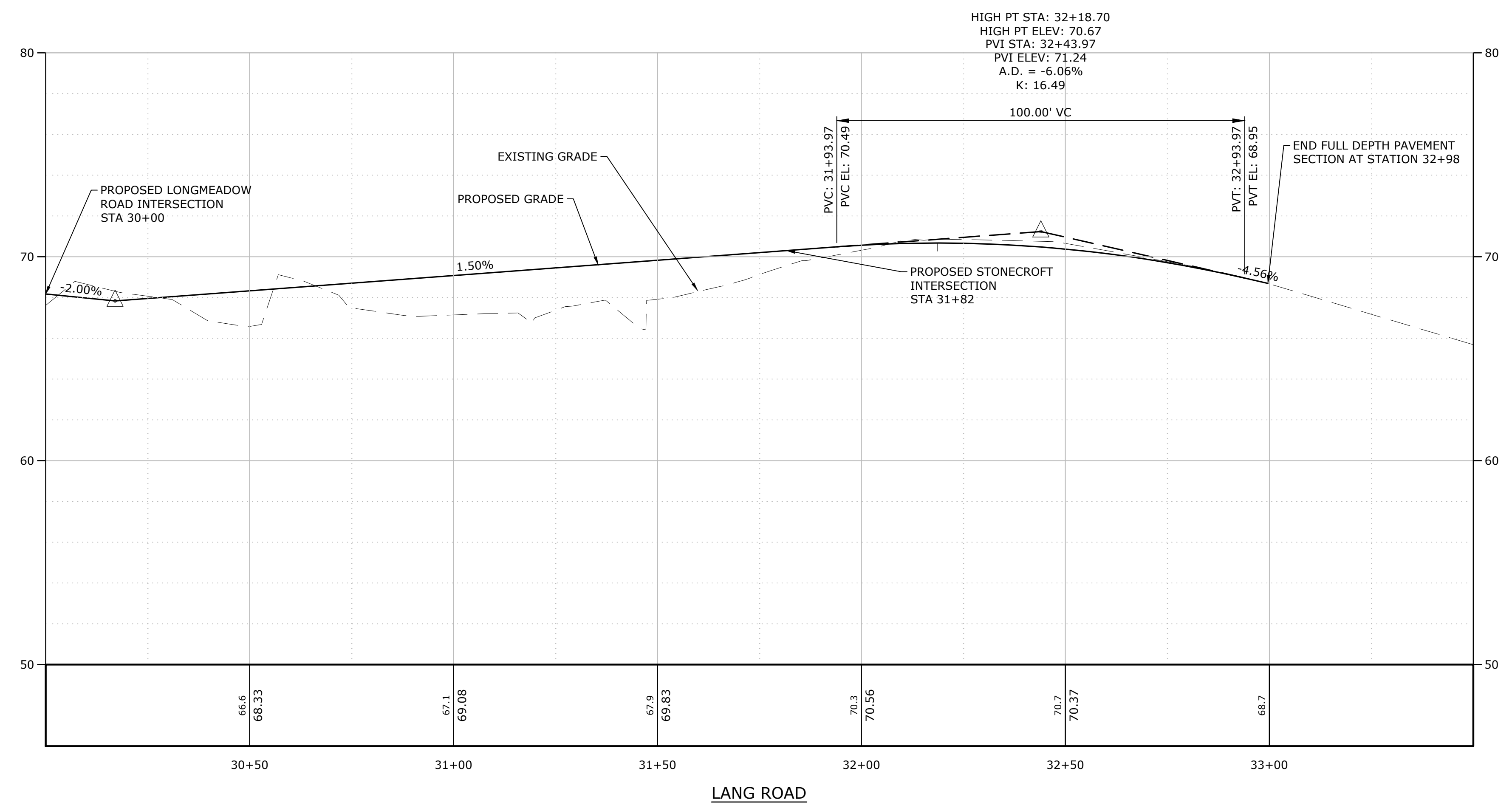
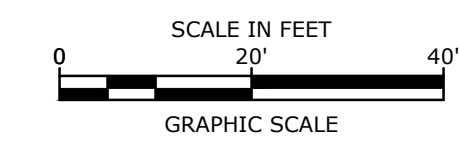
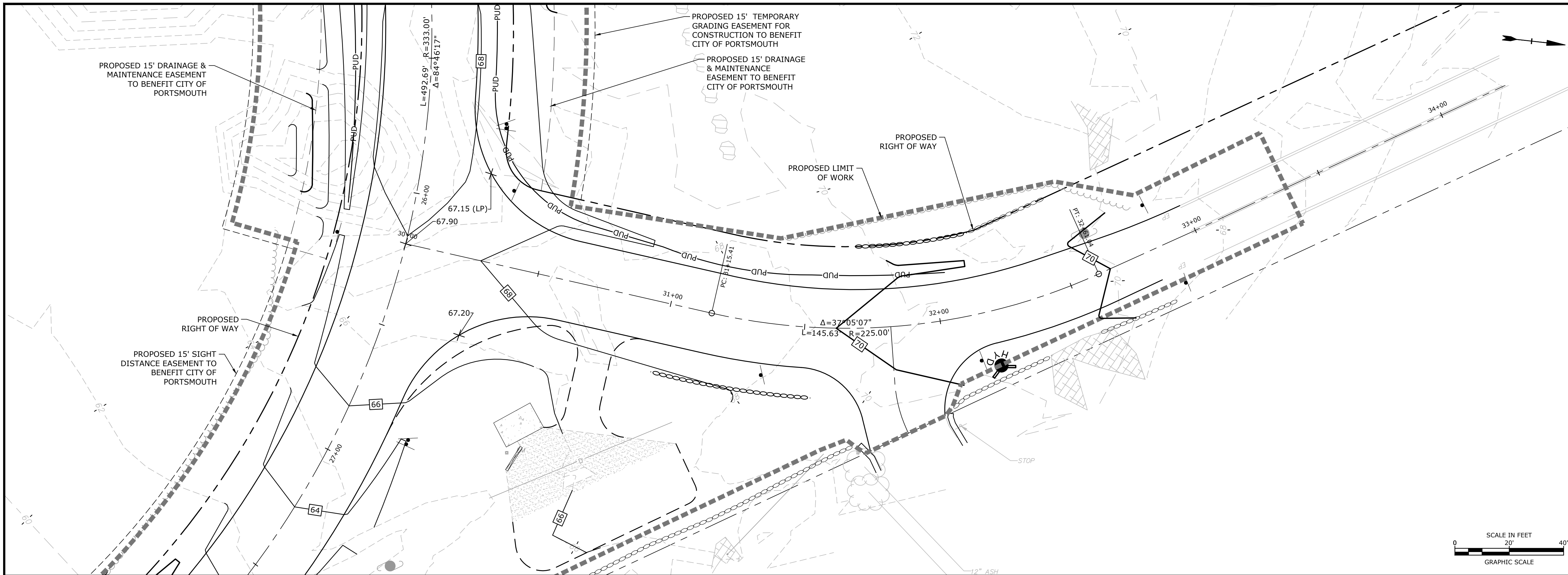
CHECKED: PMC

APPROVED: BLM

LONGMEADOW ROAD EXTENSION PLAN & PROFILE

SCALE: AS SHOWN

C-108



# Longmeadow Road Extension

City of Portsmouth

Portsmouth, New Hampshire

Portsmouth #42350  
X-A004(818)

MARK	DATE	DESCRIPTION
E	10/21/2020	NHDOT Comments
D	3/4/2019	Revised AoT Submission
C	2/11/2019	P.B. Submission
B	1/7/2019	P.D. Submission
A	1/7/2019	AoT Submission

PROJECT NO: P-0714-005  
DATE: October 21, 2019  
FILE: P-0714-005-C-DSGN.dwg  
DRAWN BY: NAH/CIK  
CHECKED: PMC  
APPROVED: BLM

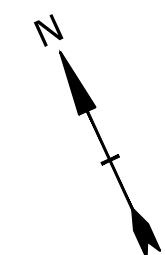
LANG ROAD PLAN & PROFILE

SCALE: AS SHOWN

C-109

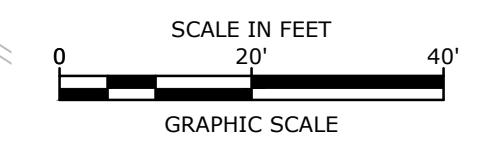
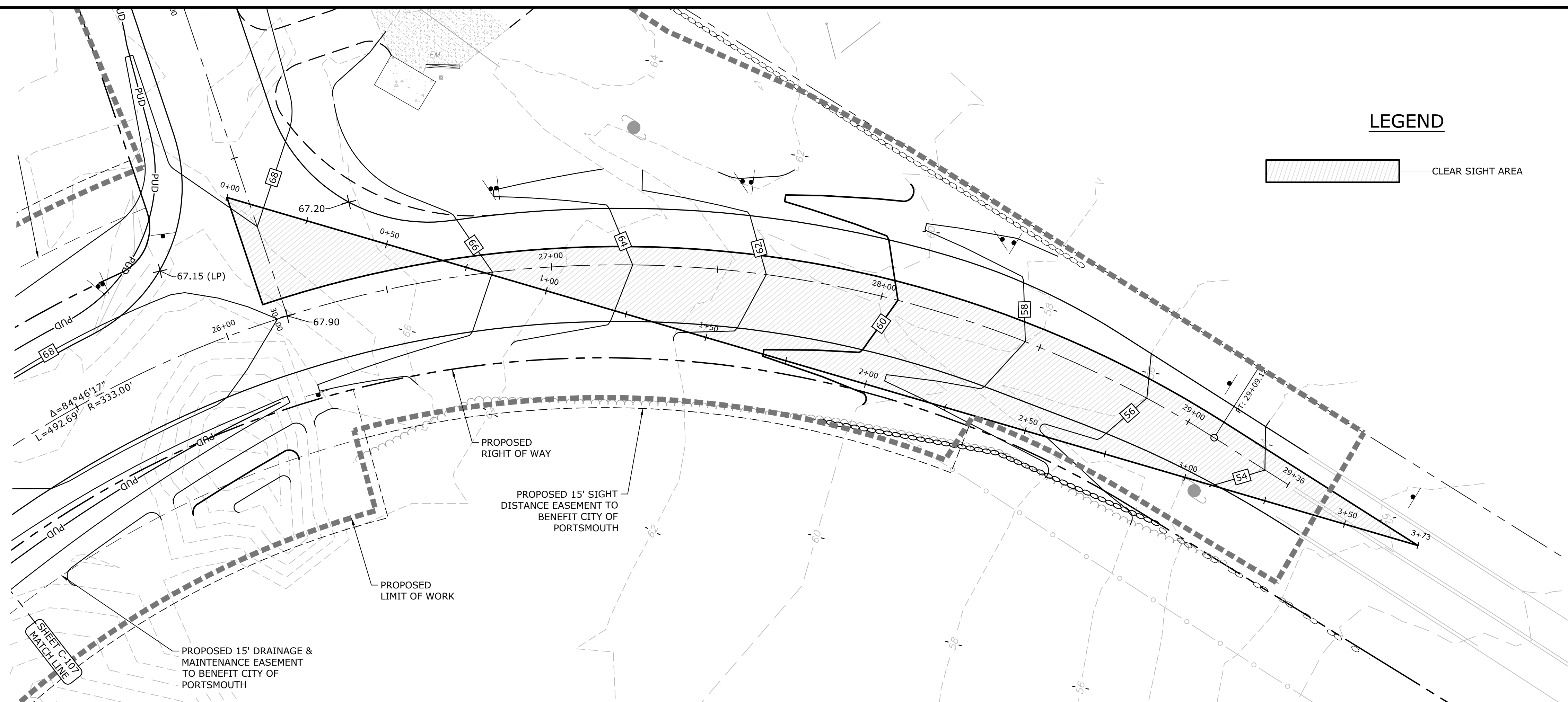
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**LEGEND**

CLEAR SIGHT AREA



**Longmeadow Road Extension**

City of Portsmouth

Portsmouth, New Hampshire

Portsmouth #42350  
X-A004(818)

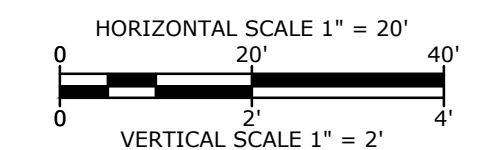
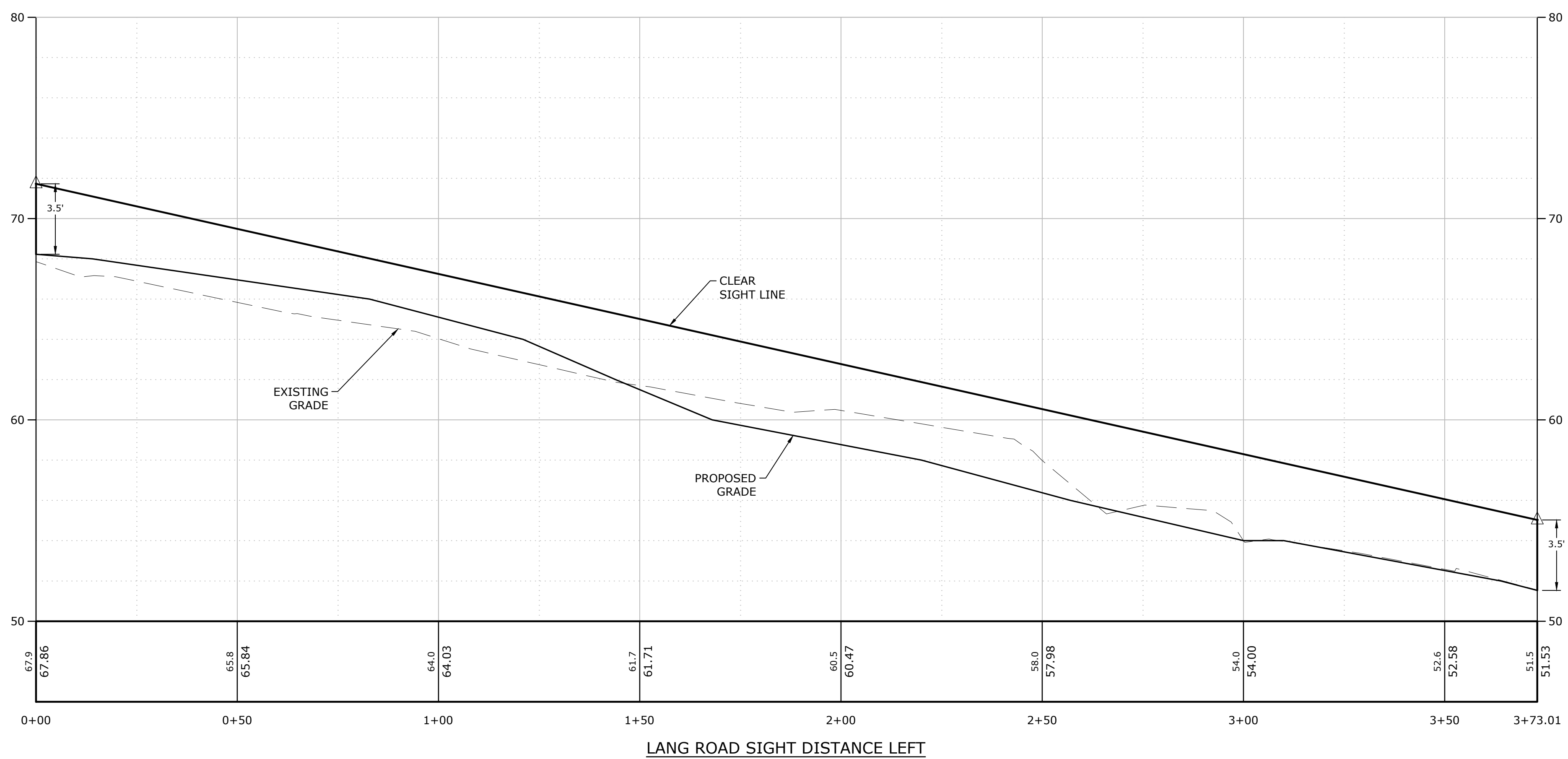
MARK	DATE	DESCRIPTION
E	10/21/2020	NHDOT Comments
D	3/4/2019	Revised AoT Submission
C	2/11/2019	P.B. Submission
B	1/7/2019	P.D. Submission
A	1/7/2019	AoT Submission

PROJECT NO:	P-0714-005
DATE:	October 21, 2019
FILE:	P-0714-005-C-DSGN.dwg
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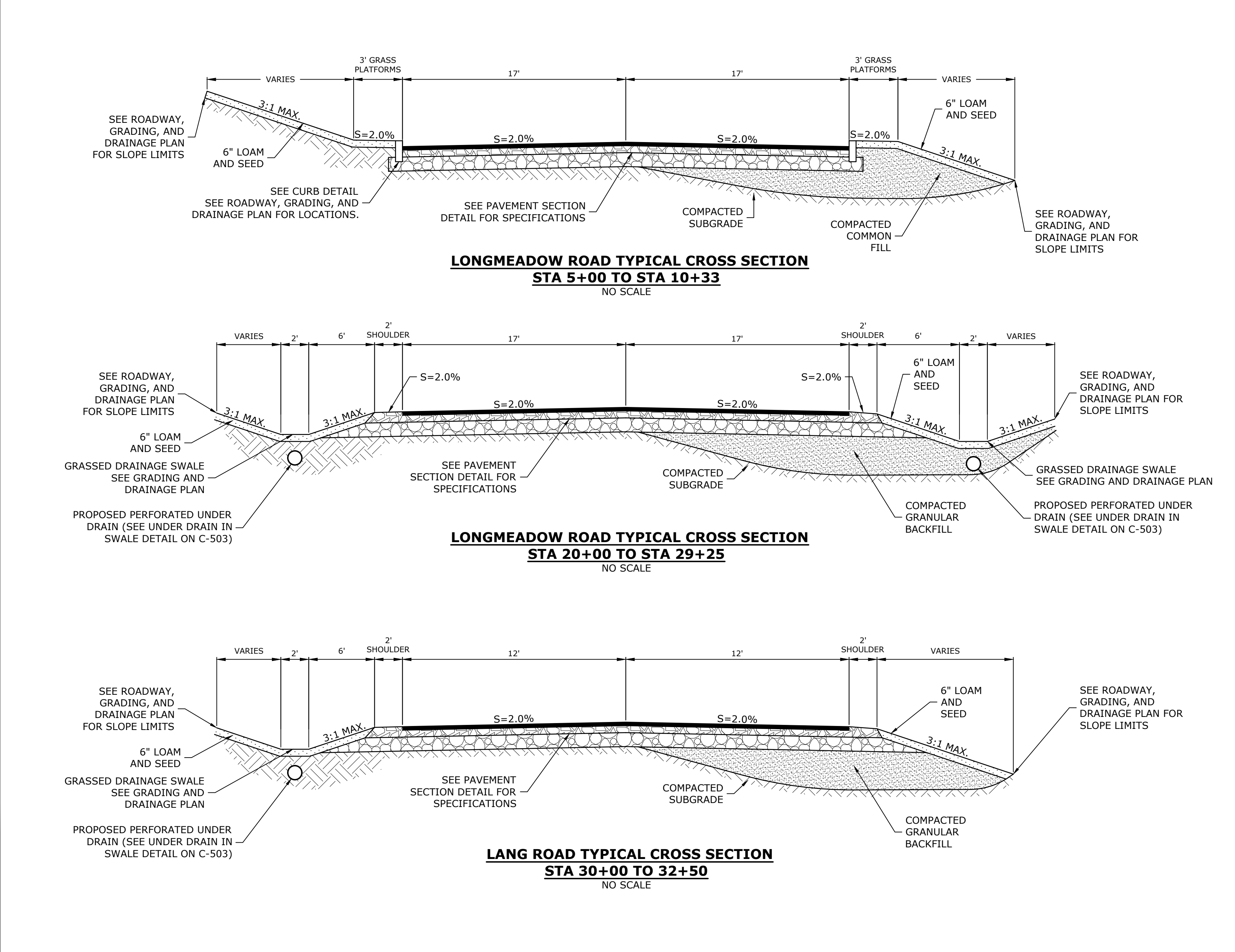
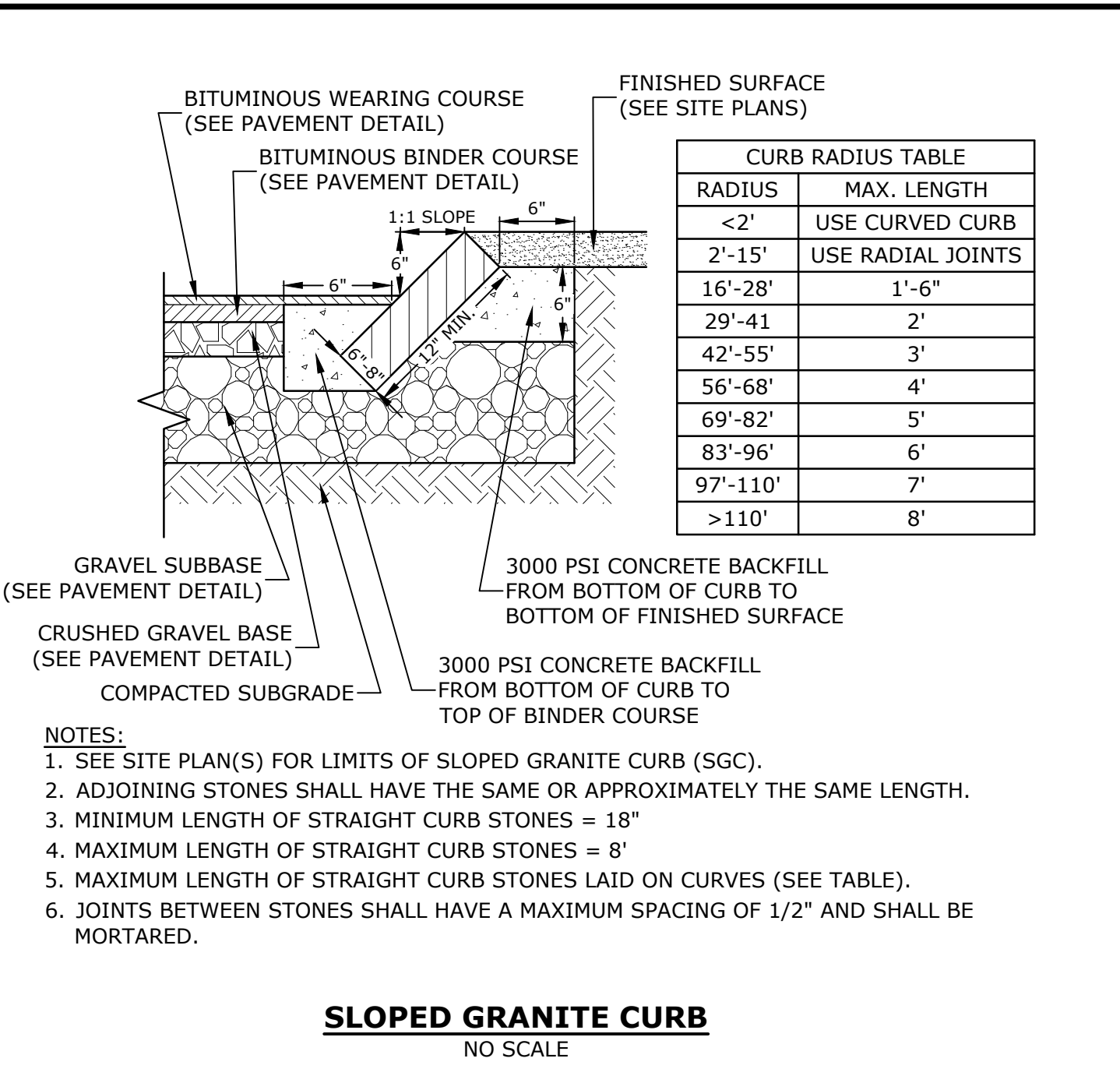
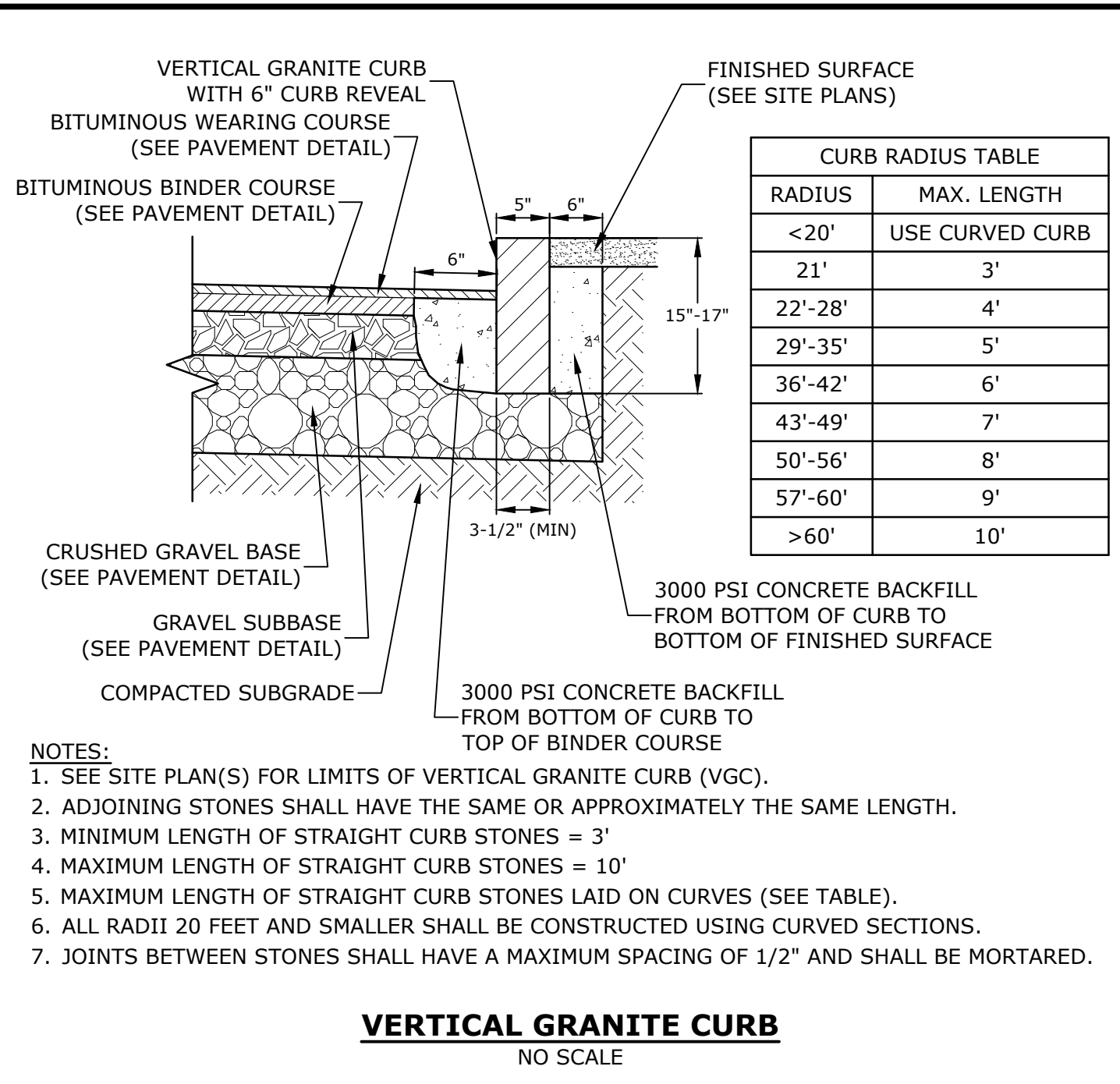
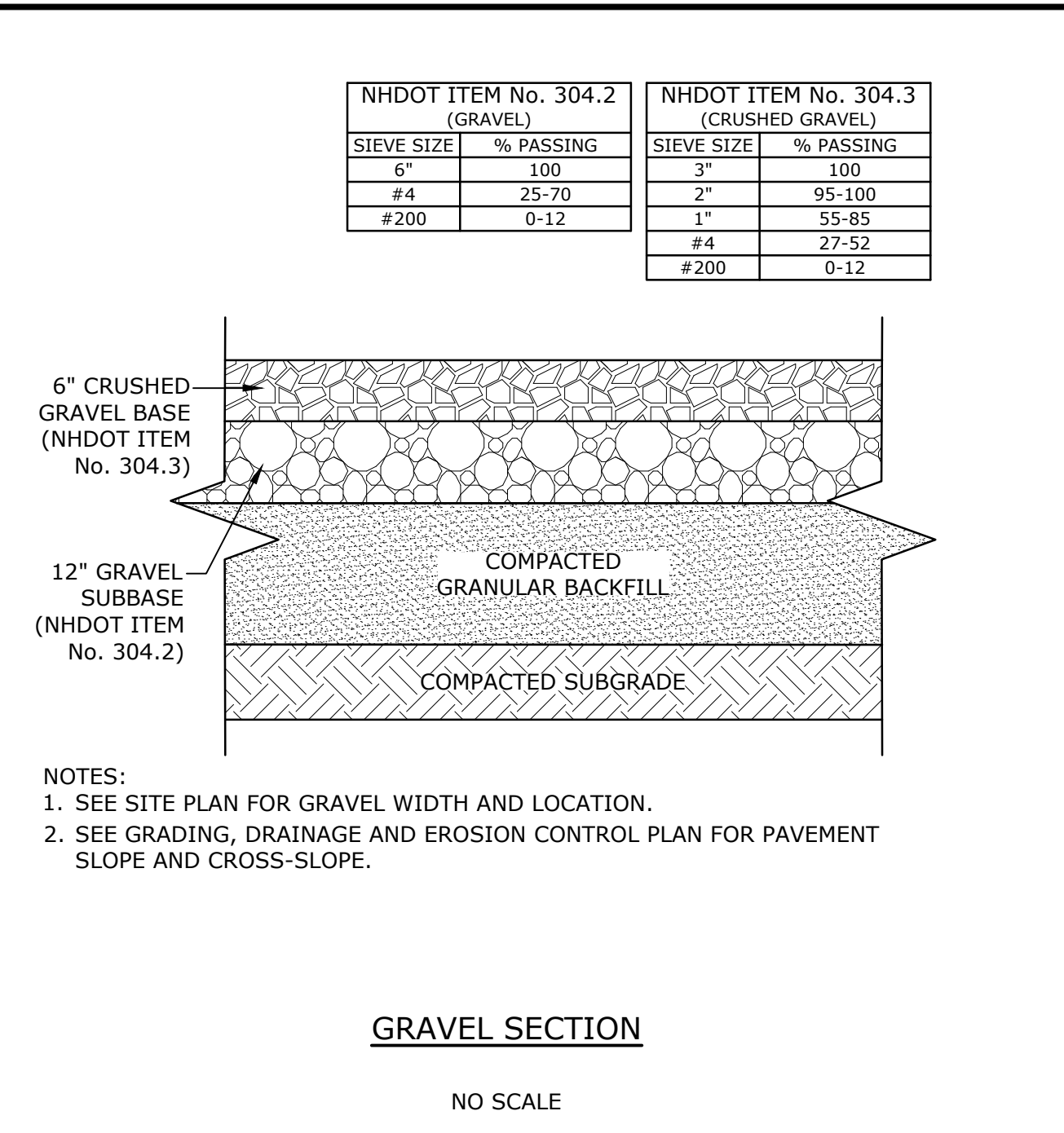
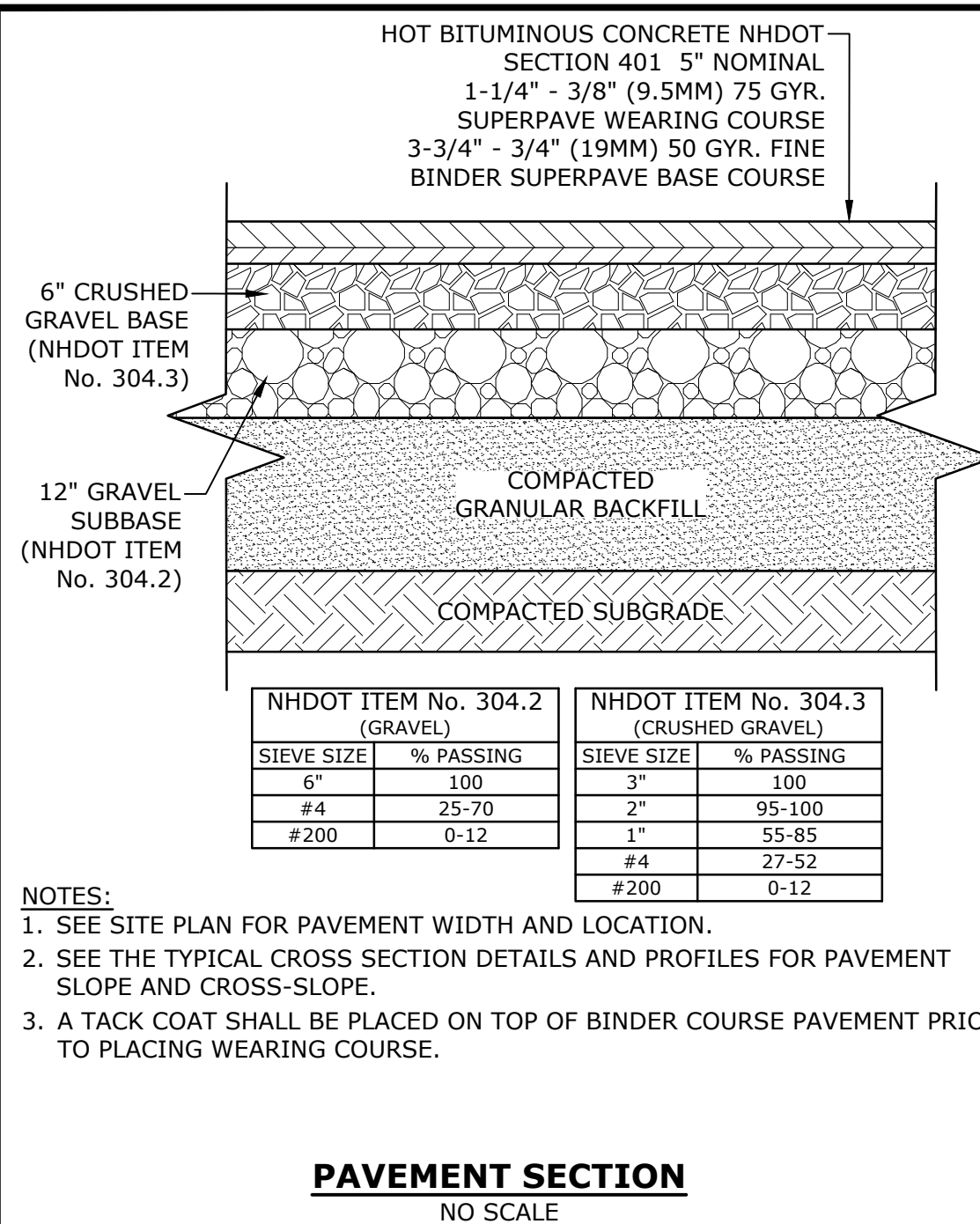
**LANG ROAD SIGHT DISTANCE PLAN & PROFILE**

SCALE: AS SHOWN

C-110







**Longmeadow Road Extension**

City of Portsmouth

Portsmouth, New Hampshire

Portsmouth #42350  
X-A004(818)

MARK	DATE	DESCRIPTION
E	10/21/2020	NHDOT Comments
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A	1/7/2019	AoT Submission

PROJECT NO: P-0714-005  
DATE: October 21, 2019  
FILE: P-0714-005-C-DTLS.dwg  
DRAWN BY: NAH/CIK  
CHECKED: PMC  
APPROVED: BLM

DETAILS SHEET  
SCALE: AS SHOWN  
**C-502**

Last Saved: 10/20/2020 2:24pm By: Ckrzulk  
 Plotted On: OCT 21, 2020 10:02:24am By: Ckrzulk  
 Tighe & Bond 211 York St Portsmouth NH 03801

**Longmeadow Road Extension**

City of Portsmouth

Portsmouth, New Hampshire

Portsmouth #42350  
X-A004(818)

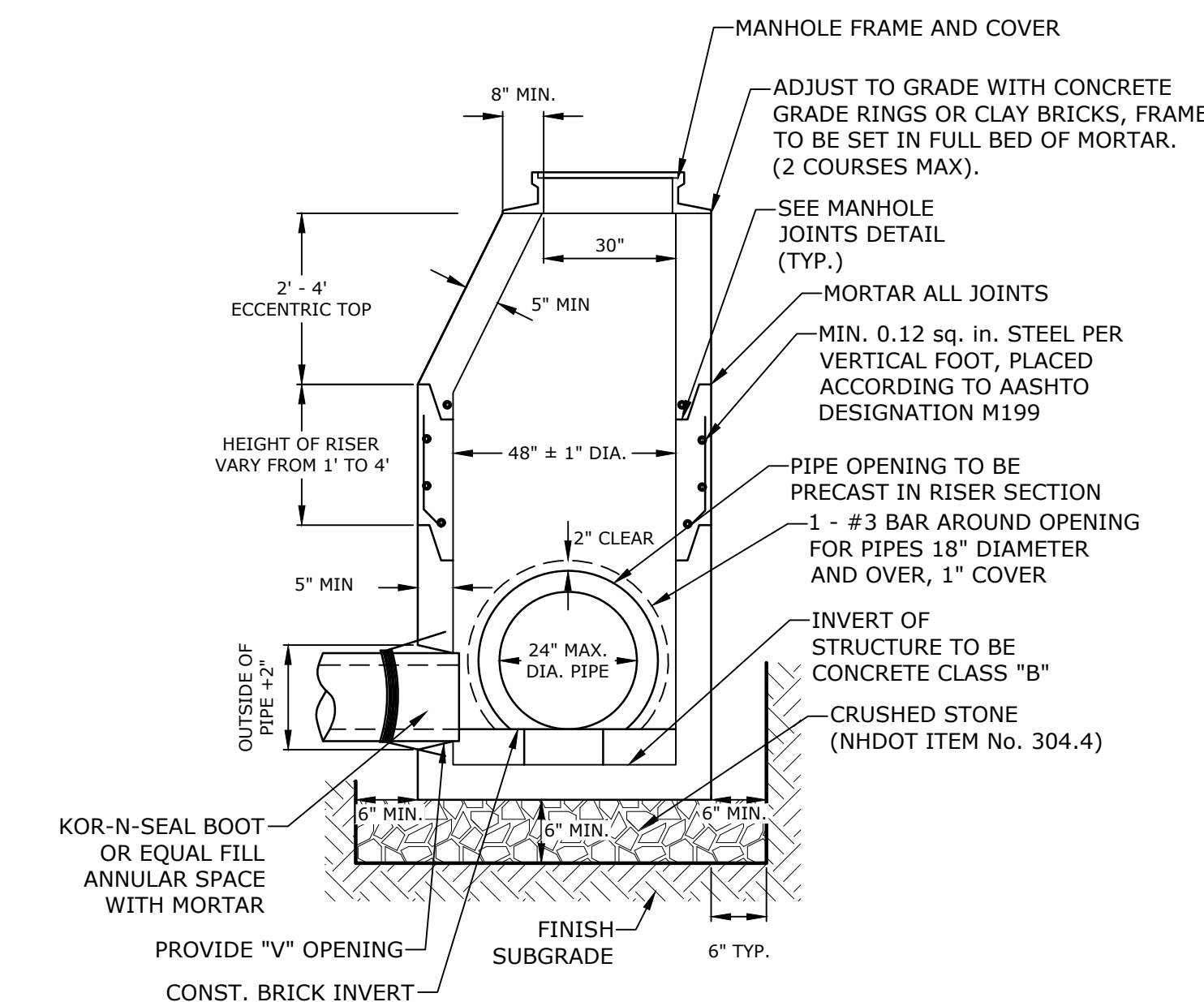
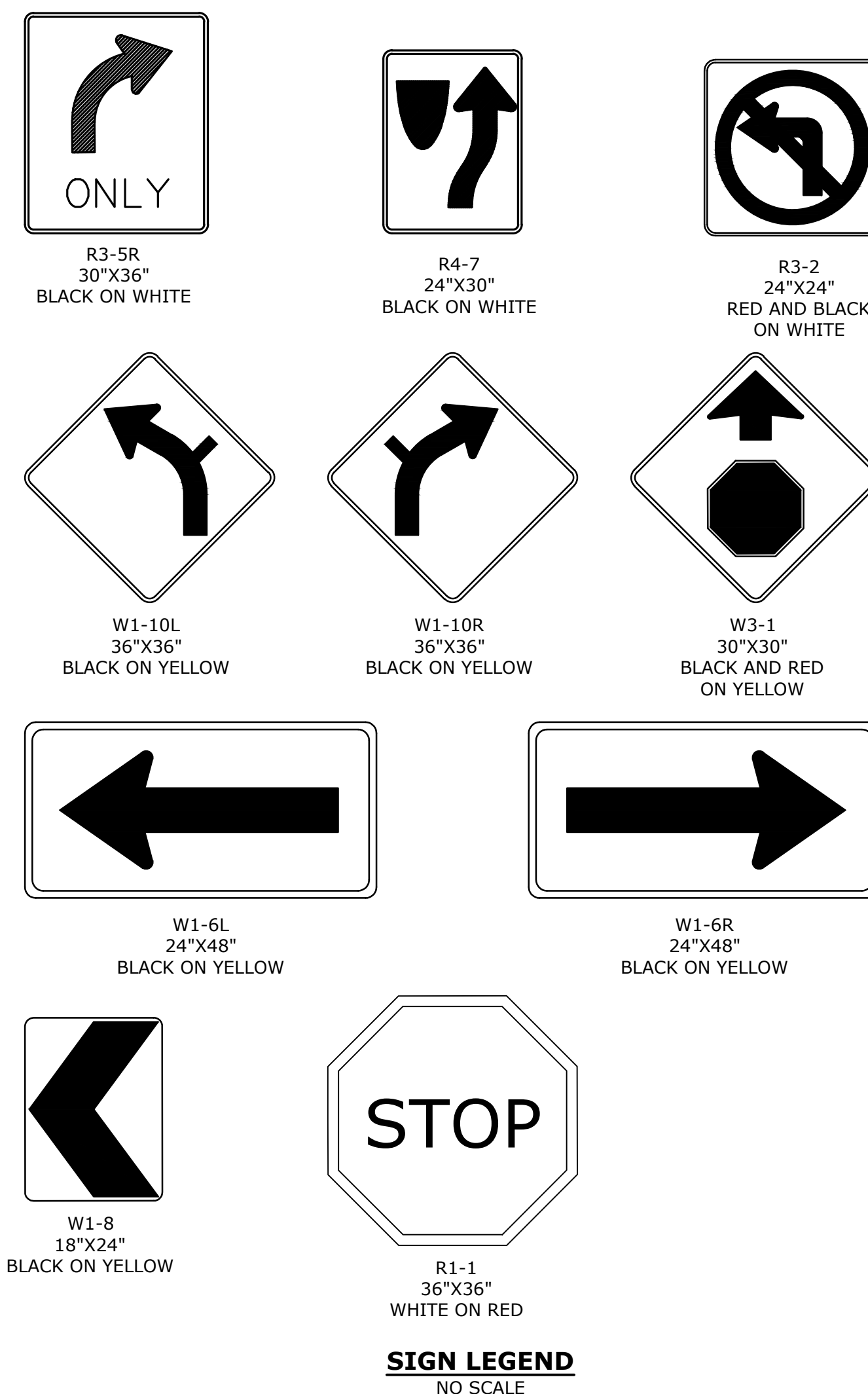
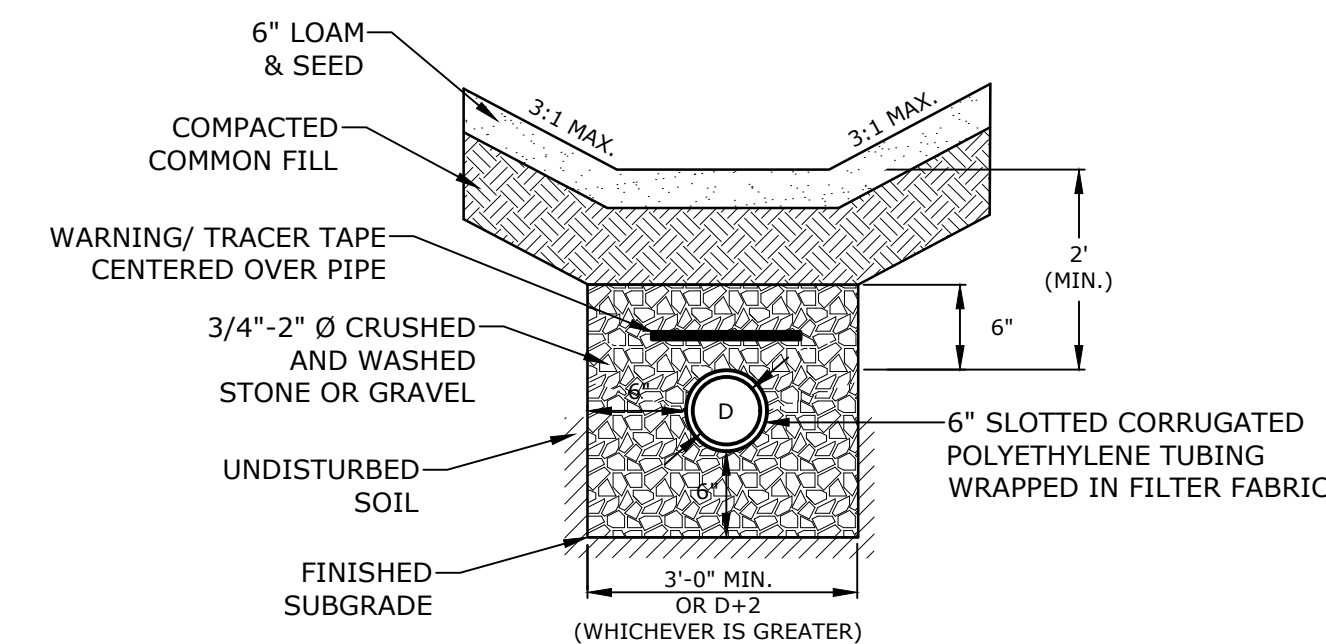
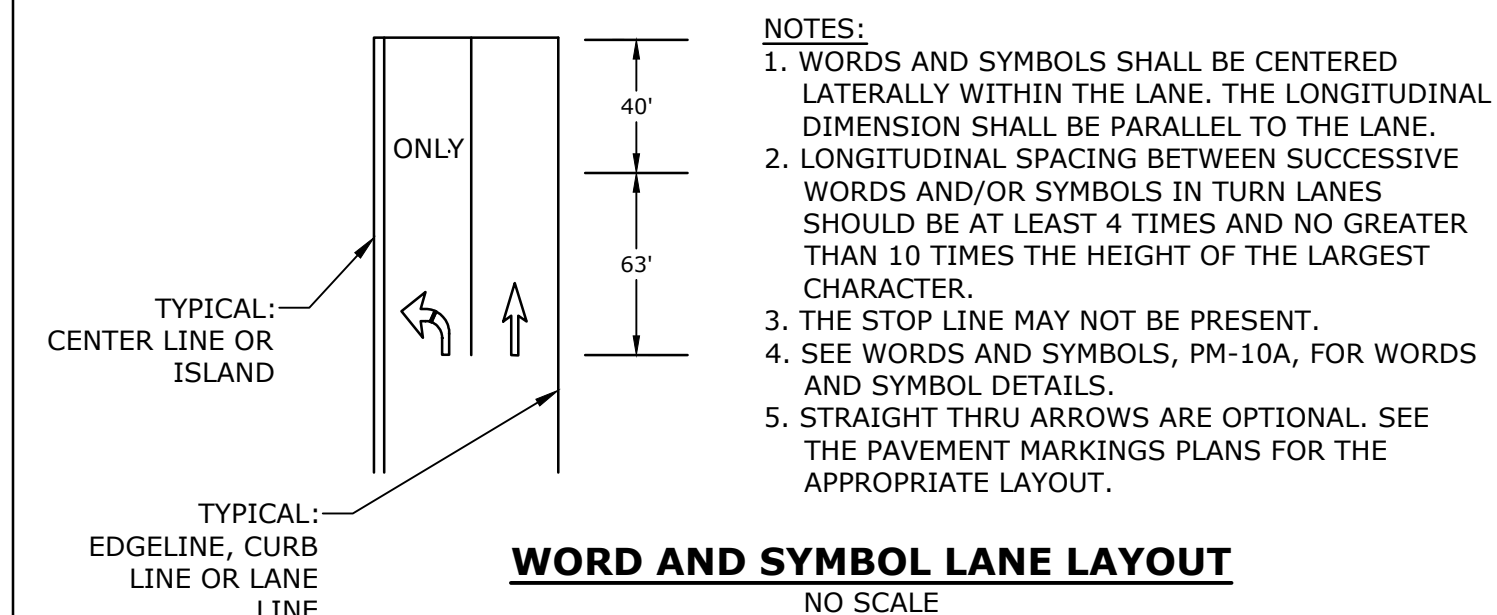
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D	3/4/2019	Revised AoT Submission
C	2/11/2019	P.B. Submission
B	1/7/2019	P.D. Submission
A	1/7/2019	AoT Submission
MARK	DATE	DESCRIPTION

PROJECT NO:	P-0714-005
DATE:	October 21, 2019
FILE:	P-0714-005-C-DTLS.dwg
DRAWN BY:	NAH/CLK
CHECKED:	PMC
APPROVED:	BLM

DETAILS SHEET

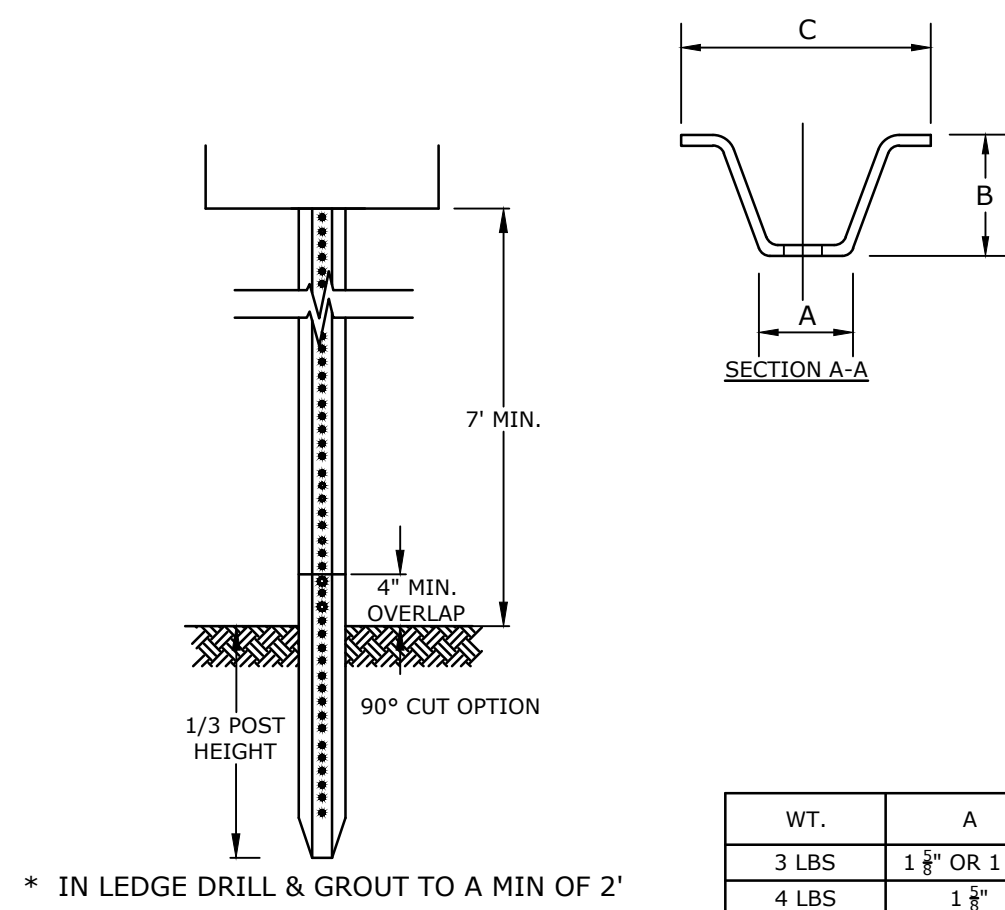
SCALE: AS SHOWN

**C-503**



- NOTES:  
1. ALL SECTIONS SHALL BE 4,000 PSI CONCRETE.  
2. CIRCUMFERENTIAL REINFORCEMENT SHALL BE 0.12 SQUARE INCHES PER LINEAR FOOT IN ALL SECTIONS AND SHALL BE PLACED IN THE CENTER THIRD OF THE WALL.  
3. THE TONGUE AND THE GROOVE OF THE JOINT SHALL CONTAIN ONE LINE OF CIRCUMFERENTIAL REINFORCEMENT EQUAL TO 0.12 SQUARE INCHES PER LINEAR FOOT.  
4. THE STRUCTURES SHALL BE DESIGNED FOR H20 LOADING.  
5. CONSTRUCT CRUSHED STONE BEDDING AND BACKFILL UNDER (6" MINIMUM THICKNESS)  
6. THE TONGUE AND GROOVE JOINT SHALL BE SEALED WITH ONE STRIP OF BUTYL RUBBER SEALANT.  
7. PIPE ELEVATIONS SHOWN ON PLANS SHALL BE FIELD VERIFIED PRIOR TO PRECASTING.  
8. OUTSIDE EDGES OF PIPES SHALL PROJECT NO MORE THAN 3" BEYOND INSIDE WALL OF STRUCTURE.  
9. PRECAST SECTIONS SHALL HAVE A TONGUE AND GROOVE JOINT 4" HIGH AT AN 11° ANGLE CENTERED IN THE WIDTH OF THE WALL AND SHALL BE ASSEMBLED USING AN APPROVED FLEXIBLE SEALANT IN JOINTS.  
10. ALL STRUCTURES WITH MULTIPLE PIPES SHALL HAVE A MINIMUM OF 12" OF INSIDE SURFACE BETWEEN HOLES, NO MORE THAN 75% OF A HORIZONTAL CROSS SECTION SHALL BE HOLES, AND THERE SHALL BE NO HOLES CLOSER THAN 3" TO JOINTS.  
11. MANHOLE FRAME AND COVER SHALL BE 32" HINGED ERGO XL BY EJ CO. PER CITY OF PORTSMOUTH STANDARD

DIAMETER	WALL THICKNESS (MIN.)	FLOOR THICKNESS (MIN.)
4"	5"	6"
5"	6"	8"
6"	7"	8"
8"	9"	10"



- NOTES:  
1. STEEL FOR POSTS SHALL CONFORM TO THE MECHANICAL REQUIREMENTS OF ASTM A 499-81 GRADE 60 AND TO THE CHEMICAL REQUIREMENTS OF ASTM A1-76 CARBON STEEL TEE RAIL HAVING NOMINAL WEIGHT OF 91 LBS. OR GREATER PER LINEAR YARD.  
2. AFTER FABRICATION, ALL STEEL POSTS SHALL BE GALVANIZED TO MEET THE REQUIREMENTS OF ASTM A 123.  
3. ALL SIGN POSTS SHALL HAVE "BREAKAWAY" FEATURES THAT MEET AASHTO REQUIREMENTS CONTAINED IN "STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS-1985." THE "BREAKAWAY" FEATURES SHALL BE STRUCTURALLY ADEQUATE TO CARRY THE SIGNS SHOWN IN THE PLANS AT 60 MPH WIND LOADINGS. INSTALLATIONS SHALL BE IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.  
4. TYPE A POSTS - 3 LB/FT TYPE B POSTS - 4 LB/FT.  
5. ALL SIGNS TO BE CONSTRUCTED PER THE LATEST EDITION OF THE FHWA STANDARD HIGHWAY SIGNS MANUAL AND INSTALLED AS INDICATED IN THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION.  
6. MEET REQUIREMENTS OF SECTION 615 SIGNS OF NHDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, 2010 EDITION, AS AMENDED.

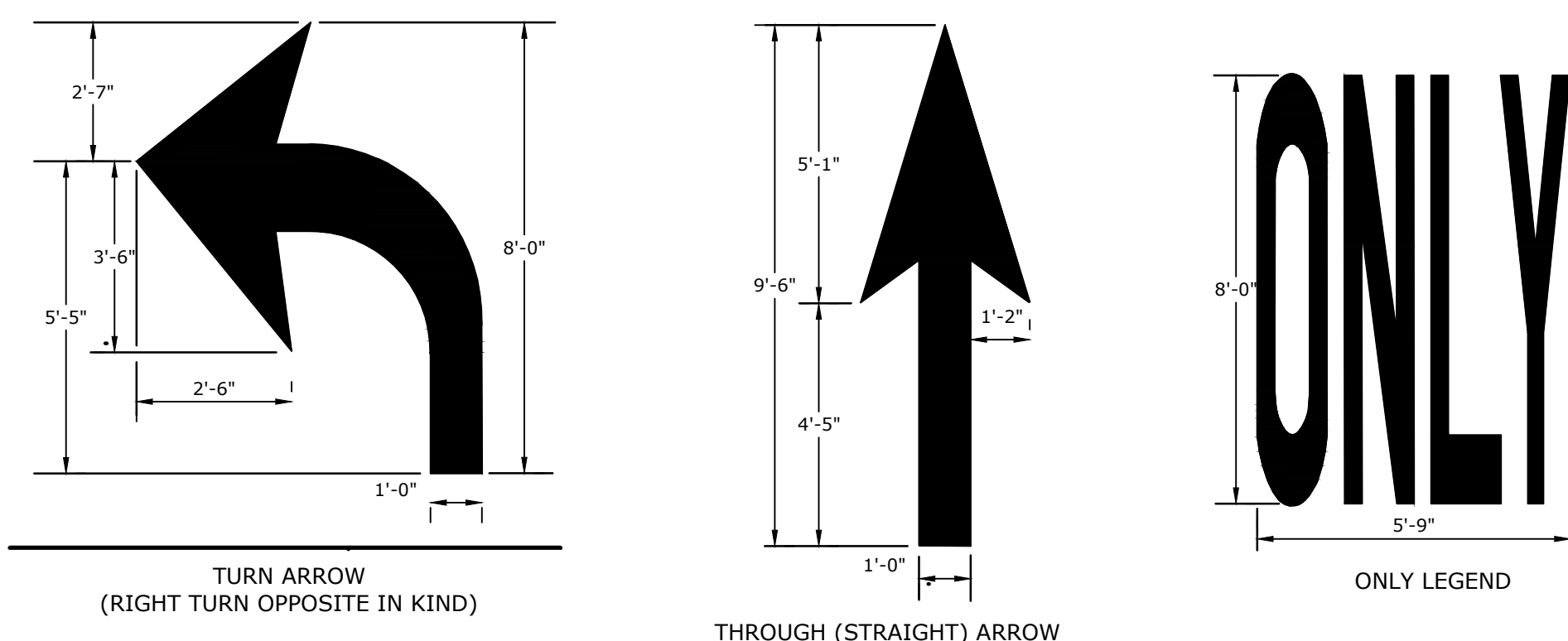
WT.	A	B	C
3 LBS	1 1/2" OR 1 3/8"	1 1/2" OR 1 3/8"	3 1/4"
4 LBS	1 3/4"	1 3/4"	3 1/2"

\* IN LEDGE DRILL & GROUT TO A MIN OF 2'

SIGN POST TO COMPLY WITH ALL ASPECTS OF NHDOT SECTION 615.

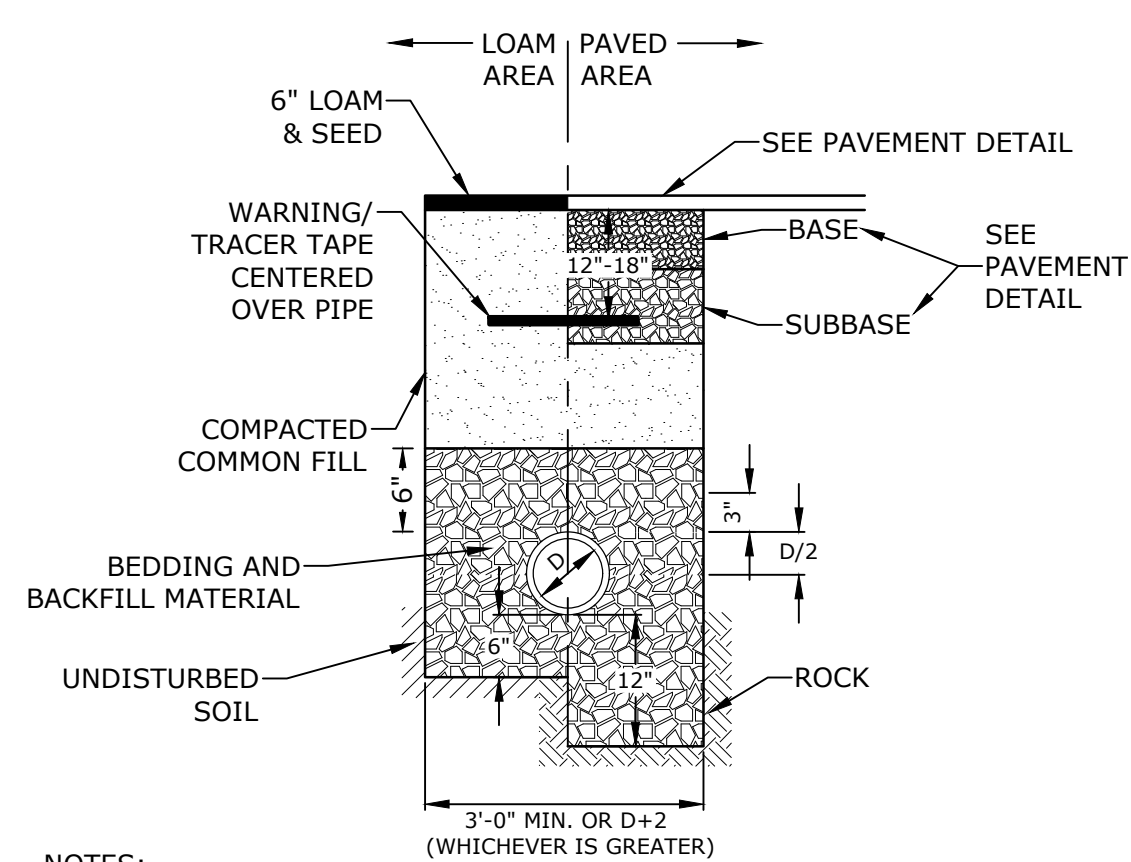
LENGTH: AS REQUIRED  
WEIGHT PER LINEAR FOOT: 2.50 LBS (MIN.)  
HOLES: 3/8" DIAMETER, 1" C-C FULL LENGTH  
STEEL: SHALL CONFORM TO ASTM A-499 (GRADE 60) OR ASTM A-576 (GRADE 1070 - 1080)  
FINISH: SHALL BE GALVANIZED IN ACCORDANCE WITH AASHTO M111.

**SIGN POST**  
NO SCALE

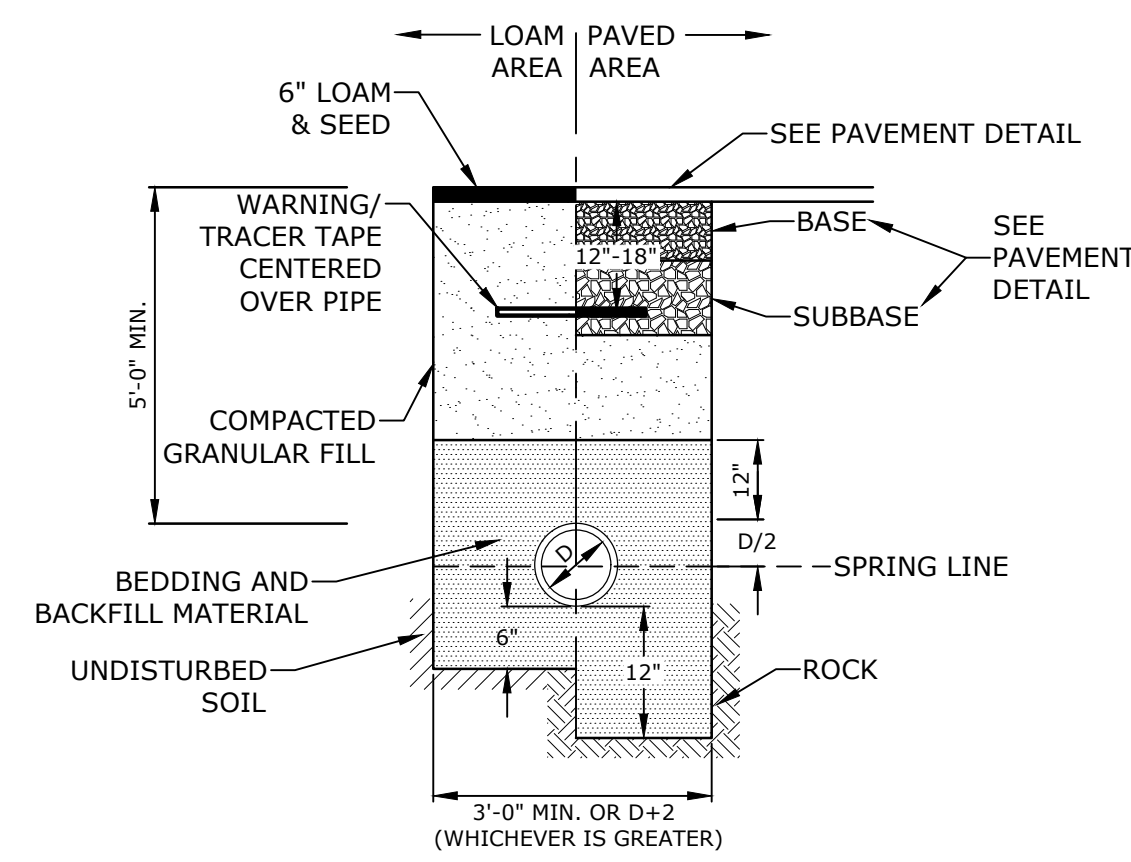


- PAVEMENT MARKING NOTES:  
1. ALL WORDS AND SYMBOLS SHALL BE RETROREFLECTIVE WHITE AND SHALL CONFORM TO THE LATEST VERSION OF THE MUTCD.  
2. MULTI-WORD MESSAGES SHALL READ "UP"; THAT IS, THE FIRST WORD SHALL BE NEAREST THE APPROACHING DRIVER.  
3. THE WORD "ONLY" SHALL NOT BE USED WITH THROUGH OR COMBINATION ARROWS, AND SHALL NOT BE USED ADJACENT TO A BROKEN LANE LINE. A WORD/SYMBOL SHALL PRECEED THE WORD "ONLY".  
4. COMBINATION ARROWS MAY BE COMPRISED OF 2 SINGLE ARROWS (e.g. TURN AND THROUGH ARROWS). HOWEVER, THE SHAFTS OF THE ARROWS SHALL COINCIDE AS SHOWN.  
5. PREFORMED WORDS AND SYMBOLS SHALL BE PRE-CUT BY THE MANUFACTURER.  
6. WRONG-WAY ARROWS SHALL NOT BE SUBSTITUTED FOR THROUGH ARROWS.  
7. ALL STOP BARS, WORDS, SYMBOLS AND ARROW SHALL BE THERMOPLASTIC.

**PAVEMENT MARKINGS**  
NO SCALE



- NOTES:  
1. CRUSHED STONE BEDDING AND BACKFILL FOR FULL WIDTH OF THE TRENCH FROM 6" BELOW PIPE IN EARTH AND 12" BELOW PIPE IN ROCK UP TO 6" ABOVE TOP OF PIPE.  
2. ALL UTILITIES SHALL BE INSTALLED PER THE INDIVIDUAL UTILITY COMPANY STANDARDS. COORDINATE ALL INSTALLATIONS WITH INDIVIDUAL UTILITY COMPANIES AND THE CITY OF PORTSMOUTH.



- NOTES:  
1. SAND BEDDING AND BACKFILL FOR FULL WIDTH OF THE TRENCH FROM 6" BELOW PIPE IN EARTH AND 12" BELOW PIPE IN ROCK UP TO 12" ABOVE TOP OF PIPE.  
2. WATER MAIN SHALL BE INSTALLED PER CITY OF PORTSMOUTH STANDARDS. COORDINATE ALL INSTALLATIONS WITH THE CITY OF PORTSMOUTH.

**WATER TRENCH**  
NO SCALE

**Longmeadow Road Extension**

City of Portsmouth

Portsmouth, New Hampshire

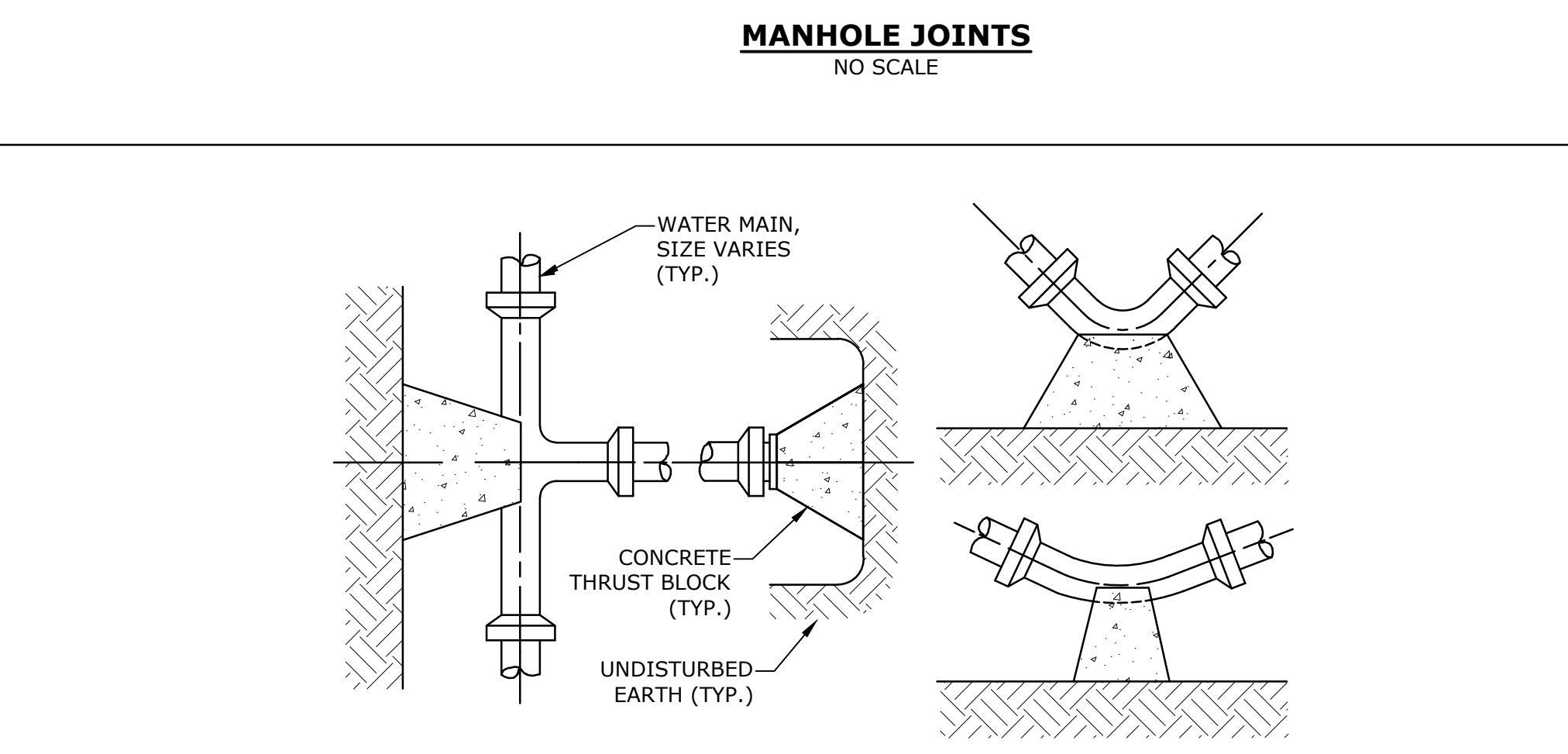
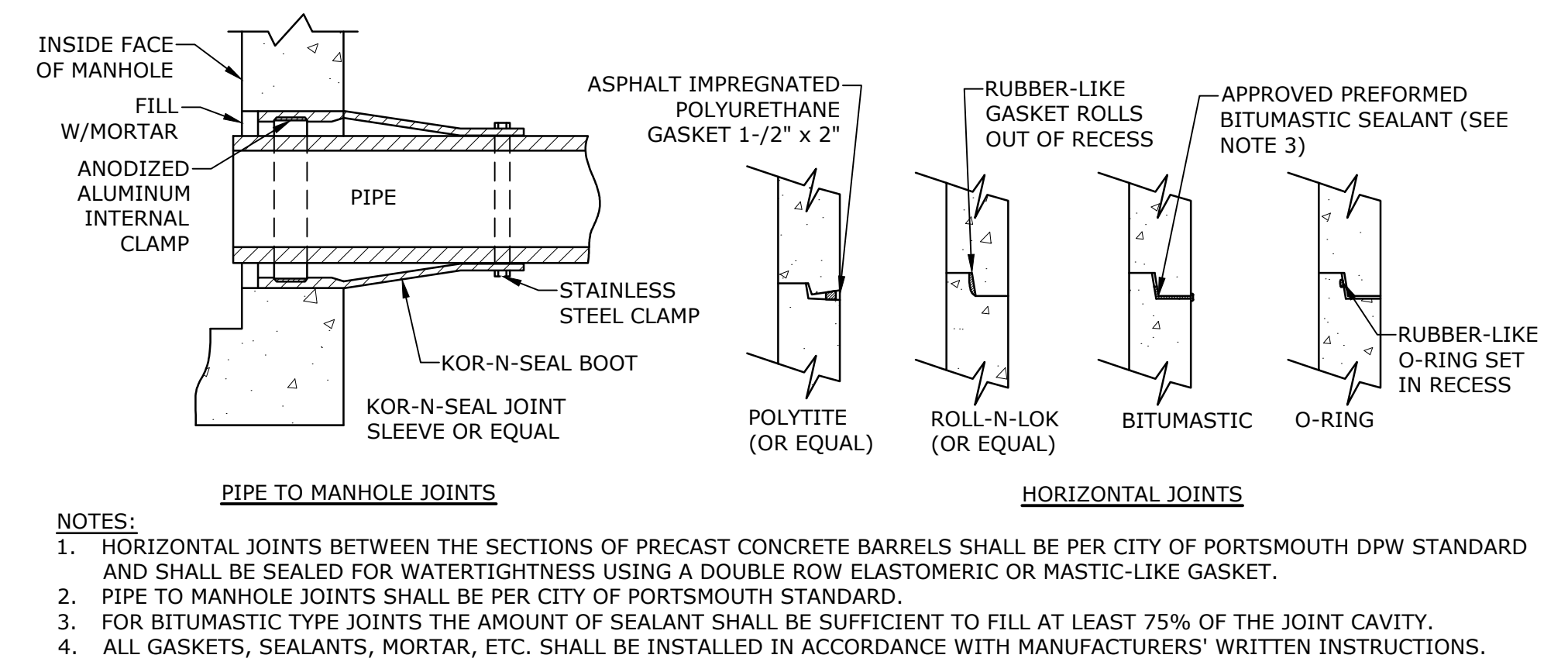
Portsmouth #42350  
X-A004(818)

E	10/21/2020	NHDOT Comments
D	3/4/2019	Revised AoT Submission
C	2/11/2019	P.B. Submission
B	1/7/2019	P.D. Submission
A	1/7/2019	AoT Submission
MARK	DATE	DESCRIPTION
PROJECT NO: P-0714-005		
DATE: October 21, 2019		
FILE: P-0714-005-C-DTLS.dwg		
DRAWN BY: NAH/CLK		PMC
CHECKED: BLM		BLM
APPROVED: BLM		

DETAILS SHEET

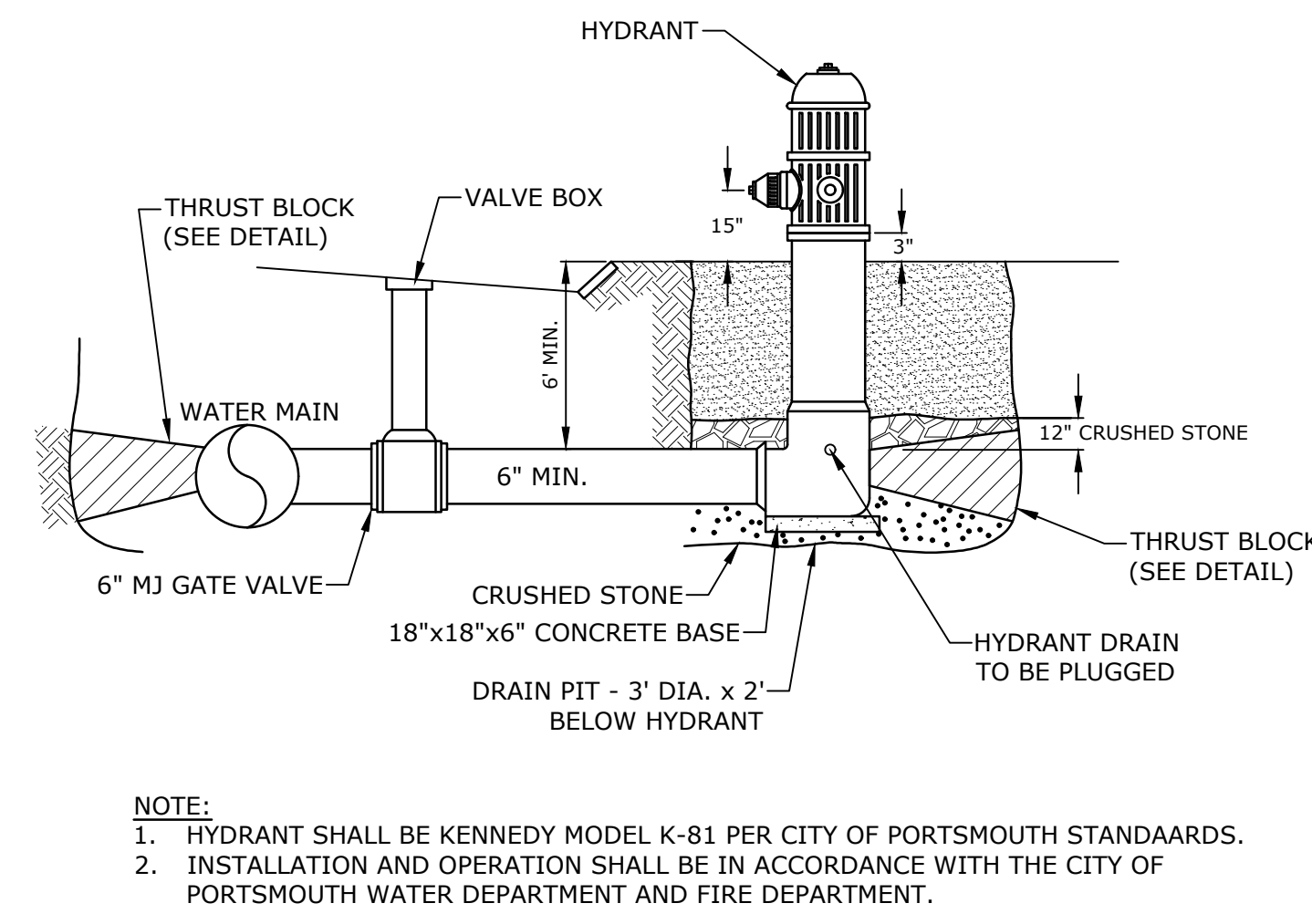
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C-504

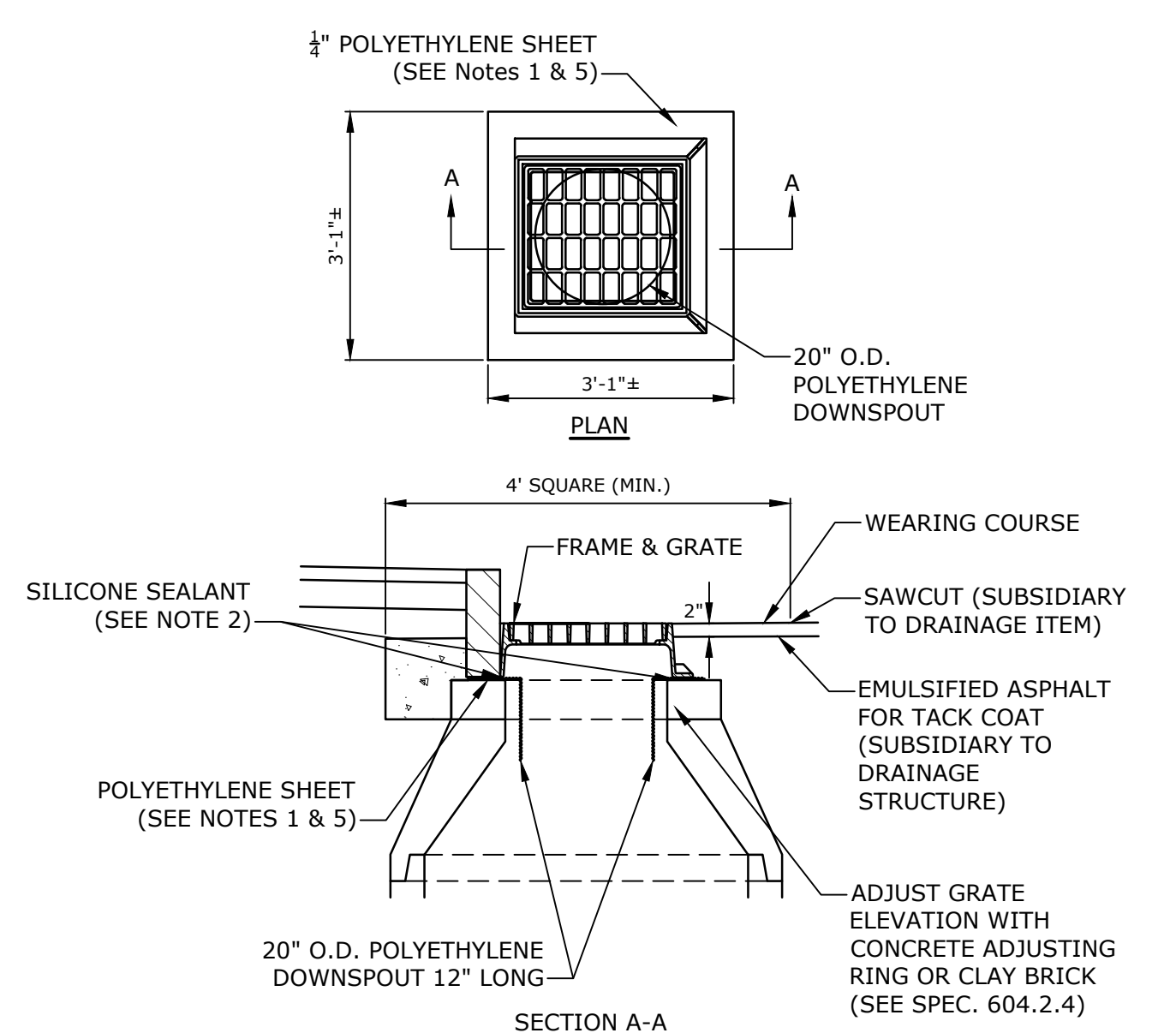


REACTION TYPE	PIPE SIZE				
	4"	6"	8"	10"	12"
A 90°	0.89	2.19	3.82	11.14	17.24
B 180°	0.65	1.55	2.78	8.38	12.00
C 45°	0.48	1.19	2.12	6.02	9.32
D 22-1/2°	0.25	0.60	1.06	3.08	4.74
E 11-1/4°	0.13	0.30	0.54	1.54	2.38

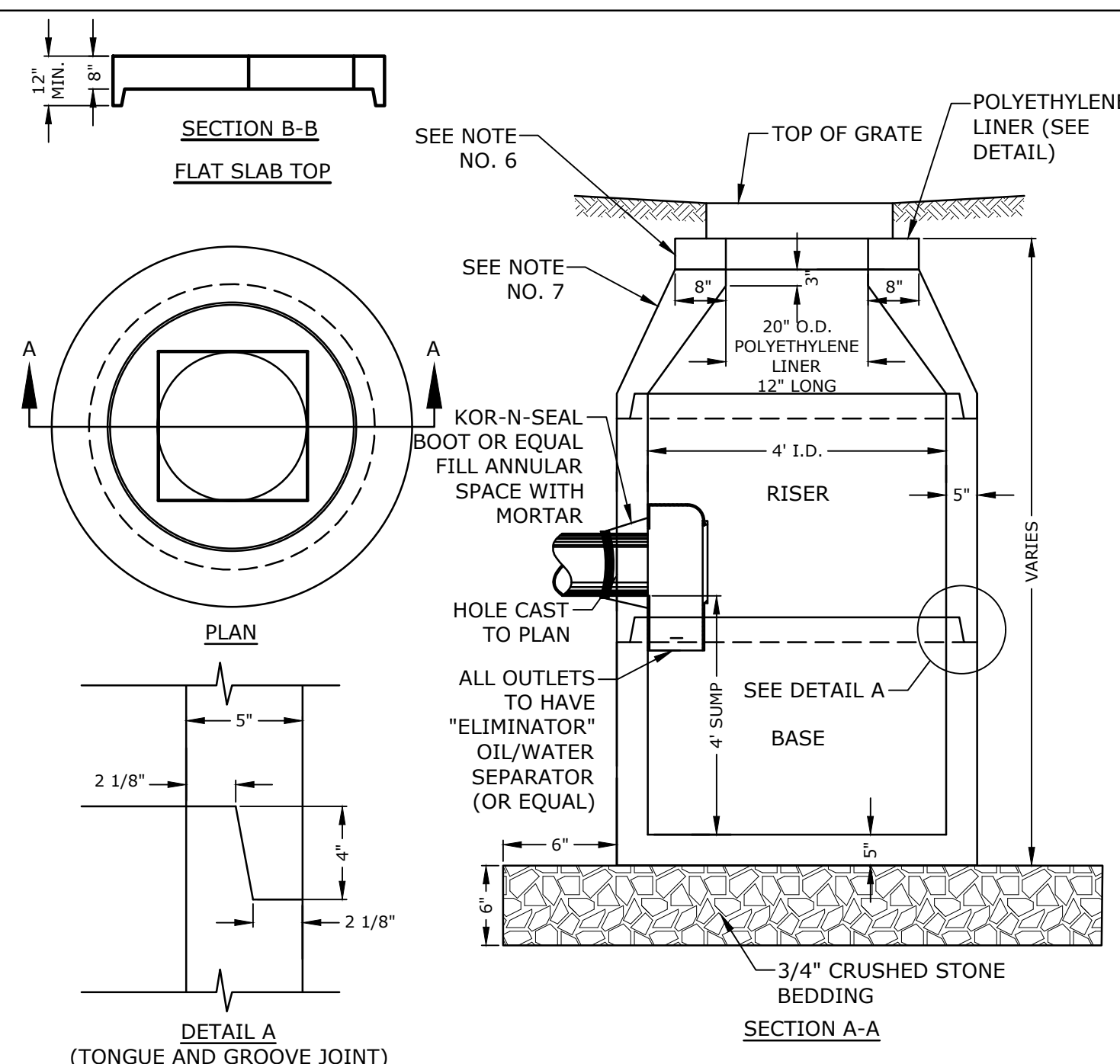
- NOTES:**
- POUR THRUST BLOCKS AGAINST UNDISTURBED MATERIAL, WHERE TRENCH WALL HAS BEEN DISTURBED, EXCAVATE LOOSE MATERIAL AND EXTEND THRUST BLOCK TO UNDISTURBED MATERIAL. NO JOINTS SHALL BE COVERED WITH CONCRETE.
  - ON BENDS AND TEES, EXTEND THRUST BLOCKS FULL LENGTH OF FITTING.
  - PLACE BOARD IN FRONT OF ALL PLUGS BEFORE POURING THRUST BLOCKS.
  - WHERE M.J. PIPE IS USED, M.J. PLUG WITH RETAINER GLAND MAY BE SUBSTITUTED FOR END BLOCKINGS.
  - INSTALLATION AND STANDARD DIMENSIONAL REQUIREMENTS SHALL BE WITH CITY OF PORTSMOUTH WATER DEPARTMENT STANDARDS.



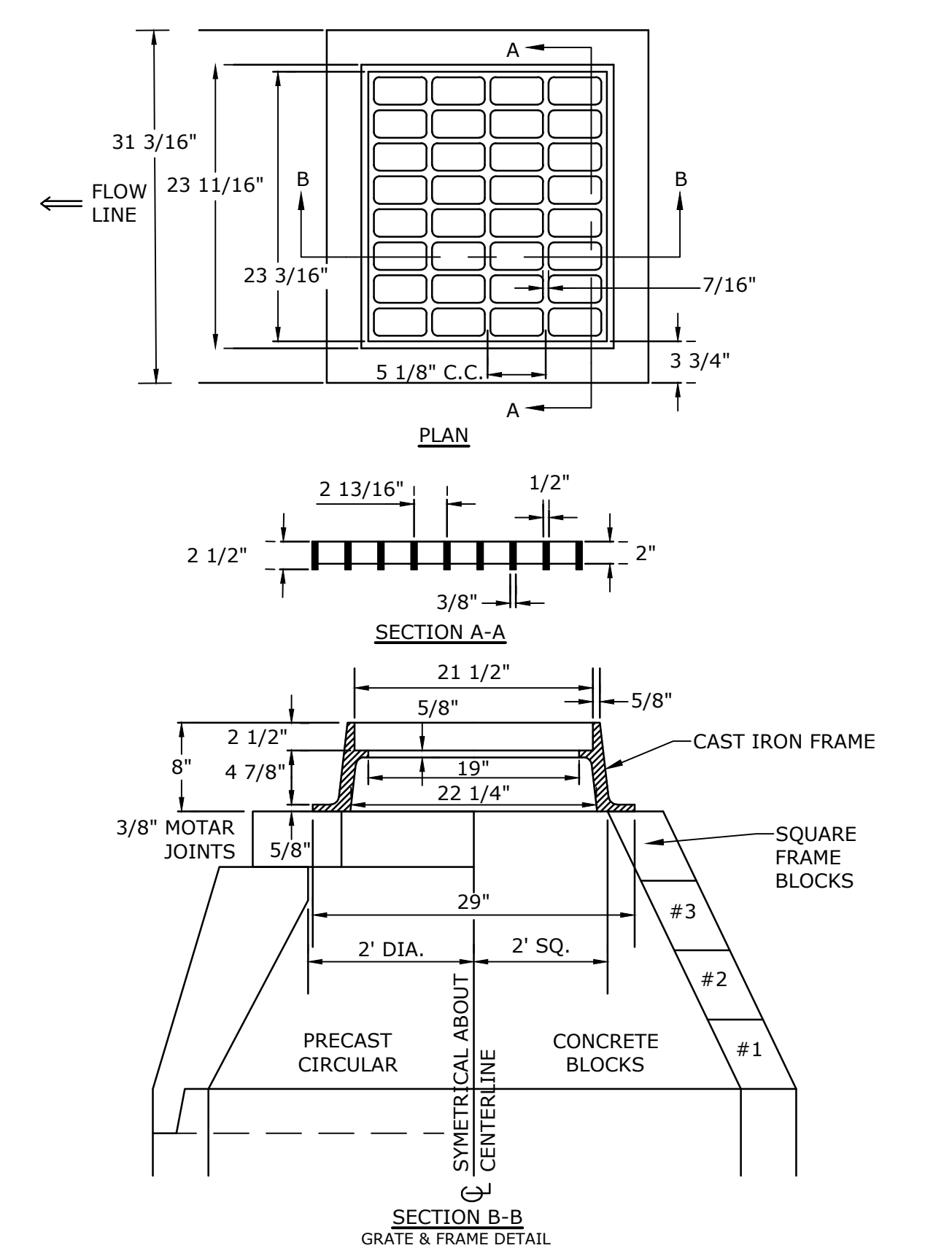
- NOTE:**
- HYDRANT SHALL BE KENNEDY MODEL K-81 PER CITY OF PORTSMOUTH STANDARDS.
  - INSTALLATION AND OPERATION SHALL BE IN ACCORDANCE WITH THE CITY OF PORTSMOUTH WATER DEPARTMENT AND FIRE DEPARTMENT.



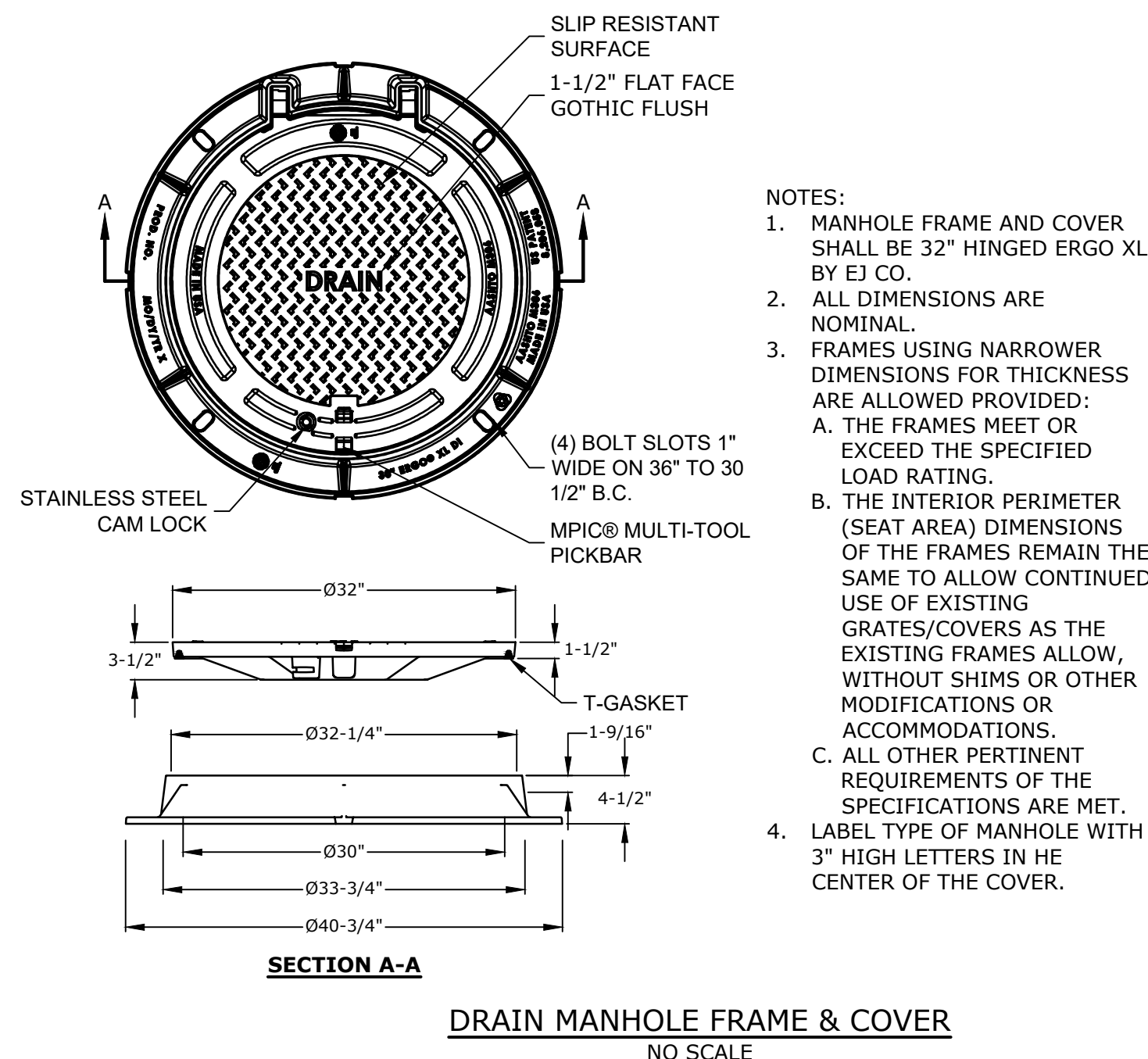
- NOTES:**
- POLYETHYLENE LINER (ITEM 604.0007) SHALL BE FABRICATED AT THE SHOP. DOWNSPOUT SHALL BE EXTRUSION FILLET WELDED TO THE POLYETHYLENE SHEET.
  - PLACE A CONTINUOUS BEAD OF AN APPROVED SILICONE SEALANT (SUBSIDIARY TO ITEM 604.0007) BETWEEN FRAME AND POLYETHYLENE SHEET.
  - PLACE CLASS AA CONCRETE TO 2" BELOW THE TOP OF THE GRATE ELEVATION (SUBSIDIARY TO DRAINAGE STRUCTURE).
  - USE ON DRAINAGE STRUCTURES 4' MIN. DIAMETER ONLY.
  - TRIM POLYETHYLENE SHEET A MAXIMUM OF 4" OUTSIDE THE FLANGE ON THE FRAME FOR THE CATCH BASIN BEFORE PLACING CONCRETE (EXCEPT AS SHOWN WHEN USED WITH 3-FLANGE FRAME AND CURB).
  - THE CENTER OF THE GRATE & FRAME MAY BE SHIFTED A MAXIMUM OF 6" FROM THE CENTER OF THE DOWNSPOUT IN ANY DIRECTION.
  - PLACED ONLY IN DRAINAGE STRUCTURES IN PAVEMENT.
  - SEE NHDOT DR-04, "DI-DB, UNDERDRAIN FLUSHING BASIN AND POLYETHYLENE LINER DETAILS", FOR ADDITIONAL INFORMATION.



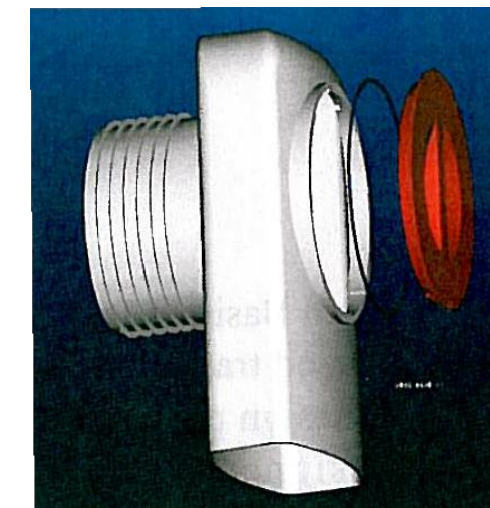
- NOTES:**
- ALL SECTIONS SHALL BE CONCRETE CLASS AA(4000 PSI).
  - CIRCUMFERENTIAL REINFORCEMENT SHALL BE 0.12 SQ. IN. PER LINEAR FT. IN ALL SECTIONS AND SHALL BE PLACED IN THE CENTER THIRD OF THE WALL.
  - THE TONGUE AND GROOVE OF THE JOINT SHALL CONTAIN ONE LINE OF CIRCUMFERENTIAL REINFORCEMENT EQUAL TO 0.12 SQ. IN. PER LINEAR FT.
  - RISERS OF 1', 2', 3' & 4' CAN BE USED TO REACH DESIRED DEPTH.
  - THE STRUCTURES SHALL BE DESIGNED FOR H2O LOADING.
  - FITTING FRAME TO GRADE MAY BE DONE WITH PREFABRICATED ADJUSTMENT RINGS OR CLAY BRICKS (2 COURSES MAX.).
  - CONE SECTIONS MAY BE EITHER CONCENTRIC OR ECCENTRIC, OR FLAT SLAB TOPS MAY BE USED WHERE PIPE WOULD OTHERWISE ENTER INTO THE CONE SECTION OF THE STRUCTURE AND WHERE PERMITTED.
  - PIPE ELEVATIONS SHOWN ON PLANS SHALL BE FIELD VERIFIED PRIOR TO PRECASTING.
  - OUTSIDE EDGES OF PIPES SHALL PROJECT NO MORE THAN 3" BEYOND INSIDE WALL OF STRUCTURE.
  - PRECAST SECTIONS SHALL HAVE A TONGUE AND GROOVE JOINT 4" HIGH AT AN 11° ANGLE CENTERED IN THE WIDTH OF THE WALL AND SHALL BE ASSEMBLED USING AN APPROVED FLEXIBLE SEALANT IN JOINTS.
  - THE TONGUE AND GROOVE JOINT SHALL BE SEALED WITH ONE STRIP OF BUTYL RUBBER SEALANT.
  - "ELIMINATOR" OIL/WATER SEPARATOR SHALL BE INSTALLED TIGHT TO INSIDE OF CATCHBASIN.



- NOTES:**
- GRATE TO BE CAST IRON (NHDOT TYPE B IN PAVED AREAS AND TYPE C IN NON-PAVED AREAS)
  - FRAME AND GRATE TO BE MANUFACTURED IN THE USA



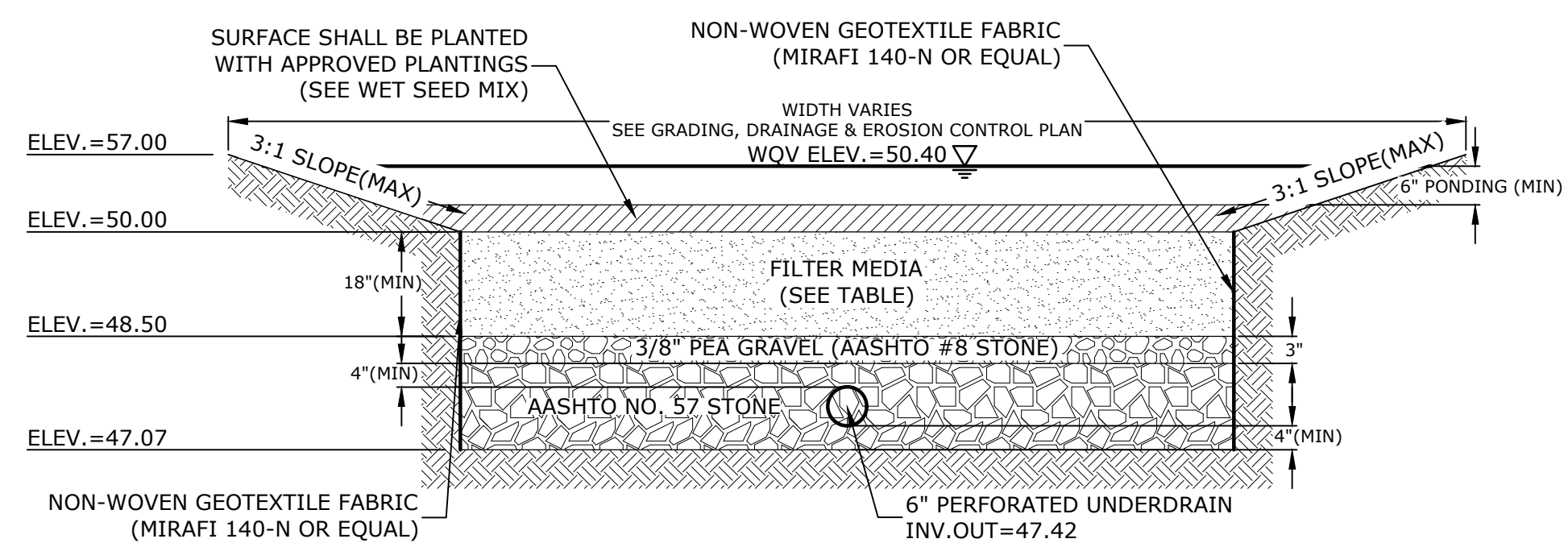
- NOTES:**
- MANHOLE FRAME AND COVER SHALL BE 32" HINGED ERGO XL BY EJ CO.
  - ALL DIMENSIONS ARE NOMINAL.
  - FRAMES USING NARROWER DIMENSIONS FOR THICKNESS ARE ALLOWED PROVIDED:
    - THE FRAMES MEET OR EXCEED THE SPECIFIED LOAD RATING.
    - THE INTERIOR PERIMETER (SEAT AREA) DIMENSIONS OF THE FRAMES REMAIN THE SAME TO ALLOW CONTINUED USE OF EXISTING GRATES/COVERS AS THE EXISTING FRAMES ALLOW, WITHOUT SHIMS OR OTHER MODIFICATIONS OR ACCOMMODATIONS.
    - ALL OTHER PERTINENT REQUIREMENTS OF THE SPECIFICATIONS ARE MET.
  - LABEL TYPE OF MANHOLE WITH 3" HIGH LETTERS IN THE CENTER OF THE COVER.



**"ELIMINATOR" OIL & FLOATING DEBRIS TRAP**  
NO SCALE

- NOTES:**
- ALL CATCH BASIN OUTLETS TO HAVE "ELIMINATOR" OIL AND FLOATING DEBRIS TRAP MANUFACTURED BY KLEANSTREAM (OR EQUAL)
  - INSTALL DEBRIS TRAP TIGHT TO INSIDE OF STRUCTURE.
  - 1/4" HOLE SHALL BE DRILLED IN TOP OF DEBRIS TRAP

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 Lang Longmeadow Road Extension Drawings - Figures AutoCAD/Revit/P-0714-005-C-DTLS.dwg



**SECTION VIEW**

FILTER MEDIA COMPOSITION:			
COMPONENT MATERIAL	PERCENT OF MIXTURE BY VOLUME	GRADATION OF MATERIAL	
		SIEVE NO.	PERCENT PASSING
ASTM C-33 CONCRETE SAND	50-55	SEE NOTE # 5	
LOAMY SAND TOPSOIL	20-30	200	15-25
MODERATELY FINE SHREDDED BARK OR WOOD FIBER MULCH	20-30	200	5 MAX

**WET SEED MIX**

50% NEW ENGLAND WETLAND PLANTS- NEW ENGLAND EROSION CONTROL/RESTORATION MIX FOR DETENTION BASINS & MOIST SITES

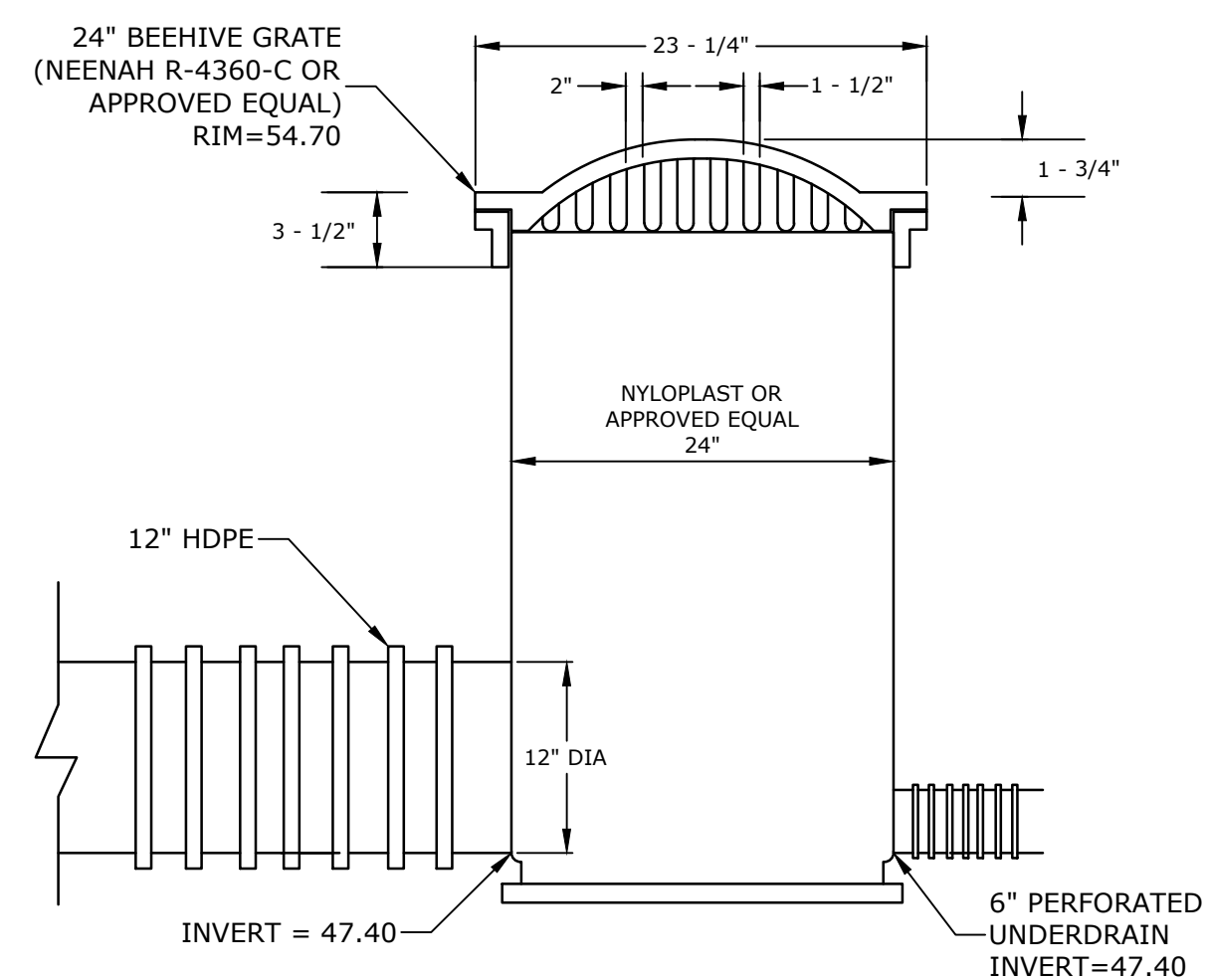
50% NEW ENGLAND WETLAND PLANTS- NEW ENGLAND CONSERVATION WILDLIFE MIX

**NOTES:**

- RAIN GARDENS SHALL NOT BE PLACED INTO SERVICE UNTIL THE PRACTICE HAS BEEN PLANTED AND ITS CONTRIBUTING AREAS HAVE BEEN FULLY STABILIZED.
- DO NOT TRAFFIC EXPOSED SOIL SURFACES WITH CONSTRUCTION EQUIPMENT. CONTRACTOR SHALL KEEP ALL EXCAVATION EQUIPMENT OUTSIDE OF THE LIMIT OF THE RAIN GARDEN.
- SEE GRADING, DRAINAGE & EROSION CONTROL PLAN FOR LOCATIONS, LAYOUTS, AND ELEVATIONS.
- THE SAND PORTION OF THE FILTER MEDIA SHALL MEET THE FOLLOWING GRADATION (ASTM C-33):

SIEVE SIZE	PERCENT PASSING	AASHTO #8 STONE (#8 to 3/8")	AASHTO #57 STONE (#4 to 1")
3/8"	100		
#4	95-100	SIEVE SIZE	% PASSING
#8	80-100	1/2"	100
#16	50-65	3/8"	85-100
#30	25-60	#4	10-30
#50	5-30	#8	0-10
#100	0-10	#16	0-5

**RAIN GARDEN**  
NO SCALE



**OUTLET CONTROL STRUCTURE DETAIL**  
NO SCALE

**Longmeadow Road Extension**

City of Portsmouth

Portsmouth, New Hampshire

Portsmouth #42350  
X-A004(818)

MARK	DATE	DESCRIPTION
E	10/21/2020	NHDOT Comments
D	3/4/2019	Revised AoT Submission
C	2/11/2019	P.B. Submission
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DETAILS SHEET

SCALE: AS SHOWN

**C-505**

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