

GRADING AND UTILITY: EROSION AND SEDIMENT CONSTRUCTION NOTES:

1. SLOPE TO RECEIVE TEMPORARY OR PERMANENT SEEDING SHALL HAVE THE SURFACE ROUGHENED BY MEANS OF TRACK-WALKING OR THE USE OF OTHER APPROVED IMPLEMENTS. SURFACE ROUGHENING IMPROVES SEED BEDDING AND REDUCES RUN-OFF VELOCITY.
2. TEMPORARY SLOPE STABILIZATION MEASURES SHALL INCLUDE: COVERING EXPOSED SOIL WITH PLASTIC SHEETING, STRAW MULCHING, WOOD CHIPS, OR OTHER APPROVED MEASURES.
3. STOCKPILED SOIL OR STRIPPINGS SHALL BE PLACED IN A STABLE LOCATION AND CONFIGURATION. DURING "WET WEATHER" PERIODS, STOCKPILES SHALL BE COVERED WITH PLASTIC SHEETING OR STRAW MULCH. SEDIMENT FENCE IS REQUIRED AROUND THE PERIMETER OF THE STOCKPILE.
4. EXPOSED CUT OR FILL AREAS SHALL BE STABILIZED WITHIN 15 DAYS OF GRADING COMMENCEMENT THROUGH THE USE OF TEMPORARY SEEDING AND MULCHING, EROSION CONTROL BLANKETS OR MATS, MID-SLOPE SEDIMENT FENCES OR WATTLES, OR OTHER APPROPRIATE MEASURES. SLOPES EXCEEDING 25% MAY REQUIRE ADDITIONAL EROSION CONTROL MEASURES.
5. CONSTRUCTION ENTRANCES SHALL BE INSTALLED AT THE BEGINNING OF CONSTRUCTION AND MAINTAINED FOR THE DURATION OF THE PROJECT. ADDITIONAL MEASURES INCLUDING, BUT NOT LIMITED TO, TIRE WASHES, STREET SWEEPING, AND VACUUMING MAY BE REQUIRED TO INSURE THAT ALL PAVED AREAS ARE KEPT CLEAN FOR THE DURATION OF THE PROJECT.
6. USE BMPs SUCH AS CHECK-DAMS, BERMS, AND INLET PROTECTION TO PREVENT RUN-OFF FROM REACHING DISCHARGE POINTS.
7. ALL CATCH BASINS AND DRAIN PIPES SHALL BE PROTECTED UNLESS NOTED OTHERWISE.
8. COVER CATCH BASINS, MANHOLES, AND OTHER DISCHARGE POINTS WHEN APPLYING SEAL COAT, TACK COAT, ETC. TO PREVENT INTRODUCING THESE MATERIALS TO THE STORM WATER SYSTEM.

EROSION AND SEDIMENT CONTROL BMP IMPLEMENTATION:

1. ALL BASE ESC MEASURES (INLET PROTECTION, PERIMETER SEDIMENT CONTROL, GRAVEL CONSTRUCTION ENTRANCES, ETC.) MUST BE IN PLACE, FUNCTIONAL, AND APPROVED IN AN INITIAL INSPECTION, PRIOR TO COMMENCEMENT OF CONSTRUCTION ACTIVITIES, AND CONSTANTLY MAINTAINED DURING THE LIFE OF THE PROJECT.
2. TREE PROTECTION SHALL BE MAINTAINED ON THE SITE UNTIL ALL SITE WORK IS COMPLETED AND THE FINAL INSPECTION IS SCHEDULED.
3. ALL "SEDIMENT BARRIERS (TO BE INSTALLED AFTER GRADING)" SHALL BE INSTALLED IMMEDIATELY FOLLOWING ESTABLISHMENT OF FINISHED GRADE. LONG TERM SLOPE STABILIZATION MEASURES "INCLUDING MATTING" SHALL BE IN PLACE OVER ALL EXPOSED SOILS BY OCTOBER 1.
4. THE STORM WATER BASIN SHALL BE CONSTRUCTED AND LANDSCAPED PRIOR TO THE STORM WATER SYSTEM FUNCTIONING AND SITE PAVING.
5. INLET PROTECTION SHALL BE IN-PLACE IMMEDIATELY FOLLOWING PAVING ACTIVITIES.
6. SEE "NOTICE OF INTENT" FOR A COMPLETE LIST OF BMP'S AND HOW SPECIFIC STANDARDS ARE MET.

LEGEND

EXISTING	PROPOSED

PROJECT NAME:
WENHAM PINES

56 & 60 Main Street
Wenham, MA 01984

APPLICANT:
WENHAM PINES LLC.

6 Kimball Lane
Lynnfield, MA 01940

OWNER:
ESTATE OF WILLIAM J. FLYNN

5 Barker Road
Boxford, MA 01921

HANCOCK ASSOCIATES

Civil Engineers
Land Surveyors
Wetland Scientists

185 CENTRE STREET, DANVERS, MA 01923
VOICE (978) 777-3050, FAX (978) 774-7816
WWW.HANCOCKASSOCIATES.COM

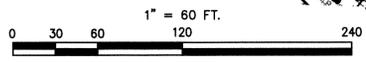
1	JPC	RAT	10/5/16	PLANNING BOARD COMMENTS
NO.	BY	APP	DATE	ISSUE/REVISION DESCRIPTION
DATE:	7/19/2016	DESIGN BY:	RAT	
SCALE:	AS SHOWN	DRAWN BY:	JPC	
APPRVD. BY:	WJT	CHECK BY:	DD/RAT	

EROSION AND SEDIMENTATION CONTROL PLAN

PLOT DATE: Oct 10, 2016 6:30 pm
PATH: P:\CMA 3D Projects\16093\DWG\

DWG: 19400C1 16093.dwg
LAYOUT: ESC
SHEET: 27 OF 36

PROJECT NO.: **19400**



CURTIS L. ALEXANDER
DEED BOOK 30881, PAGE 307
PLAN BOOK 376, PLAN 45

PROJECT NAME:
**WENHAM
PINES**

56 & 60 Main Street
Wenham, MA 01984

APPLICANT:
**WENHAM
PINES
LLC.**

6 Kimball Lane
Lynnfield, MA 01940

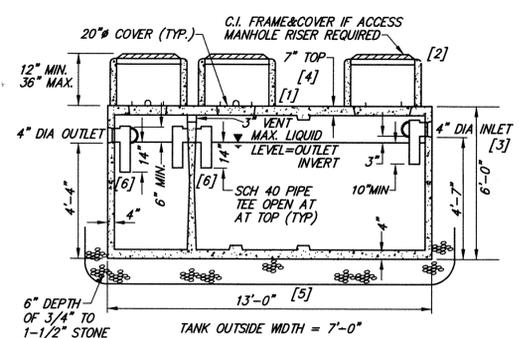
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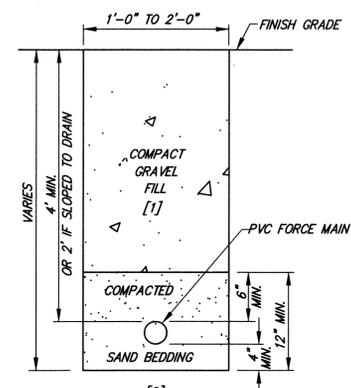


- [1] PRECAST REINFORCED CONCRETE CONSTRUCTION, LOAD RATING: H10 FULLY DAMP-PROOFED EXTERIOR, ALL OPENINGS SEALED WATERTIGHT, AS MANUFACTURED BY E.F. SHEA OF WILMINGTON, MA., OR EQUAL.
- [2] MANHOLE RISER REQUIRED: YES NO
IF YES, APPROX. DEPTH OF COVER OVER RISER RIM: 0 INCHES
- [3] IF SIDE INLET OF SEPTIC TANK IS USED, EXTEND INLET PIPE TO CENTER OF TANK.
- [4] WHERE UNDER OR ADJACENT TO AREA TO BE PAVED, COMPACT BACKFILL TO 95% PER ASTM D-1557.
- [5] UNDISTURBED SOIL OR SUBGRADE COMPACTED TO 95% PER ASTM D-1557.
- [6] OUTLET TEES SHALL BE EQUIPPED WITH A CORROSION-RESISTANT GAS DEFLECTOR.
- [7] INSTALL EFFLUENT FILTER A-1800 OR EQUAL. MANHOLE OVER FILTER SHALL BE BE LABELED "FILTER".

1340/660 GAL. MONOLITHIC SEPTIC TANK
(310 CMR 15.223 - 15.227)
TYPICAL CROSS SECTION
NOT TO SCALE

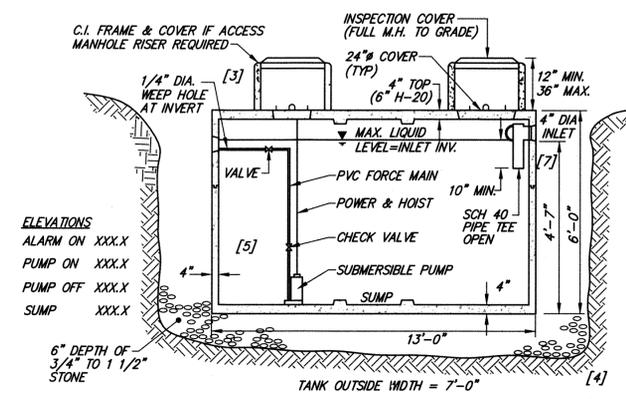
- 1. FIRST COMPARTMENT : 200% DAILY FLOW = 1340 GAL.
- 2. SECOND COMPARTMENT : 100% DAILY FLOW = 660 GAL.
- 3. REQUIRED: 1340/660 GAL., 2 COMPARTMENT TANK

SEPTIC TANK COMPUTATIONS
(310 CMR 15.223)



- [1] WHERE UNDER OR ADJACENT AREA TO BE PAVED, COMPACT BACKFILL TO 95% PER ASTM D-1557.
- [2] UNDISTURBED SOIL OR SUBGRADE COMPACTED TO 95% PER ASTM D-1557.

FORCE MAIN TRENCH
TYPICAL CROSS SECTION
NOT TO SCALE



- [1] PRECAST REINFORCED CONCRETE CONSTRUCTION, LOAD RATING: H10 H20 FULLY DAMP-PROOFED EXTERIOR, ALL OPENINGS SEALED WATERTIGHT, AS MANUFACTURED BY E.F. SHEA OF WILMINGTON, MA., OR EQUAL.
- [2] MANHOLE RISER REQUIRED: YES NO
IF YES, APPROX. DEPTH OF COVER OVER RISER RIM: X INCHES
- [3] WHERE UNDER OR ADJACENT AREA TO BE PAVED, COMPACT BACKFILL TO 95% PER ASTM D-1557.
- [4] UNDISTURBED SOIL OR SUBGRADE COMPACTED TO 95% PER ASTM D-1557.
- [5] INSTALL SEPARATE RISER FOR FLOATS (REMOVABLE FOR INSPECTION & SERVICE).
- [6] FLOAT CONTROLS SHALL BE SUSPENDED FROM A STAINLESS STEEL FLOAT RACK.
- [7] IF SIDE INLET OF SEPTIC TANK IS USED, EXTEND INLET PIPE TO CENTER OF MANHOLE.

2000-GALLON MONOLITHIC DOSING CHAMBER
(310 CMR 15.231)
TYPICAL CROSS SECTION
NOT TO SCALE

1	JPC	RAT	10/5/16	PLANNING BOARD COMMENTS
NO.	BY	APP	DATE	ISSUE/REVISION DESCRIPTION
DATE:	6/29/2016	DESIGN BY:	VWT	
SCALE:	NONE	DRAWN BY:	TRO	
APPRVD. BY:	RAT	CHECK BY:		

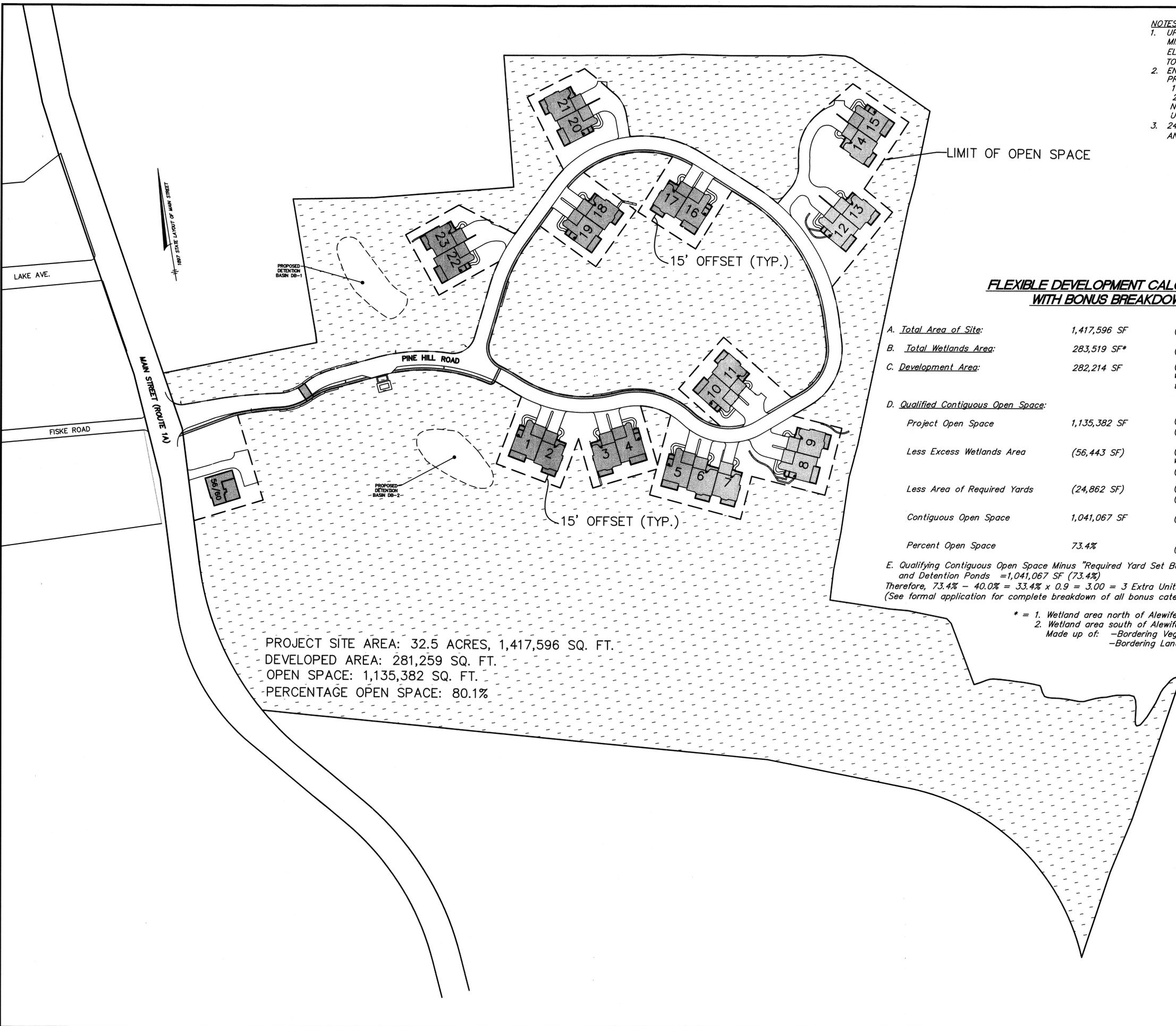
**SEWER AND
SEPTIC DETAILS**

PLOT DATE: Oct 10, 2016 6:30 pm
PATH: F:\CH3 3D Projects\19400\DWG\

DWG: 19400C1 160930.dwg
LAYOUT: DETAILS-SEP
SHEET: 29 OF 36



PROJECT NO.: 19400



PROJECT SITE AREA: 32.5 ACRES, 1,417,596 SQ. FT.
 DEVELOPED AREA: 281,259 SQ. FT.
 OPEN SPACE: 1,135,382 SQ. FT.
 PERCENTAGE OPEN SPACE: 80.1%

- NOTES:**
1. UPLAND AREA CALCULATED AS TOTAL LOT AREA MINUS AREA OF LOT BELOW FLOODPLAIN ELEVATION (ELEV. 39) (ZONING BY-LAWS OF THE TOWN OF WENHAM §5.2.2)
 2. ENTIRE PARCEL: 32.5± ACRES
 PROPOSED UNITS: 23+2 AFFORDABLE UNITS=25
 10 NEWLY CONSTRUCTED BUILDINGS
 2 UNITS IN EACH BUILDING AND 1 NEWLY CONSTRUCTED BUILDING WITH 3 UNITS
 3. 24' ROADWAY W/ CAPE COD BERM AND 4.5' BITUMINOUS CONCRETE SIDEWALK

FLEXIBLE DEVELOPMENT CALCULATION WITH BONUS BREAKDOWN

A. Total Area of Site:	1,417,596 SF	(= 32.4 acres)
B. Total Wetlands Area:	283,519 SF*	(= 20% of Total Area)
C. Development Area:	282,214 SF	(Includes calculated area of land to be developed with roadway, driveways, buildings and areas to be maintained as exclusive use yards)
D. Qualified Contiguous Open Space:		
Project Open Space	1,135,382 SF	(Site Area - Development Area) (= 80% of site or about 26 acres)
Less Excess Wetlands Area	(56,443 SF)	(Difference between total site wetlands and 20% wetland area allowed (227,076 SF) - see Section 11.1.5.1)
Less Area of Required Yards	(24,862 SF)	(Calculated area of land within required yards) (See Section 11.1.2)
Contiguous Open Space	1,041,067 SF	(1,135,382 SF - 56,443 SF - 24,862 SF - 2 Detention Basins: 13,010 SF)
Percent Open Space	73.4%	(1,041,067/1,417,596)
E. Qualifying Contiguous Open Space Minus "Required Yard Set Backs" (24,864 SF) and Excess Wetlands and Detention Ponds = 1,041,067 SF (73.4%)		
Therefore, 73.4% - 40.0% = 33.4% x 0.9 = 3.00 = 3 Extra Units		
(See formal application for complete breakdown of all bonus categories)		

* = 1. Wetland area north of Alewife Brook = 157,077 S.F.
 2. Wetland area south of Alewife Brook = 126,442 S.F.
 Made up of: -Bordering Vegetated Wetland = 42,409 S.F.
 -Bordering Land Subject to Flooding = 84,033 S.F.

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WENHAM PINES
 56 & 60 Main Street
 Wenham, MA 01984

APPLICANT:
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 6 Kimball Lane
 Lynnfield, MA 01940

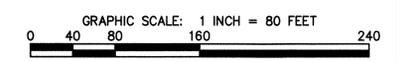
OWNER:
ESTATE OF WILLIAM J. FLYNN
 5 Barker Road
 Boxford, MA 01921

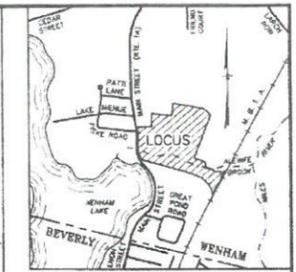
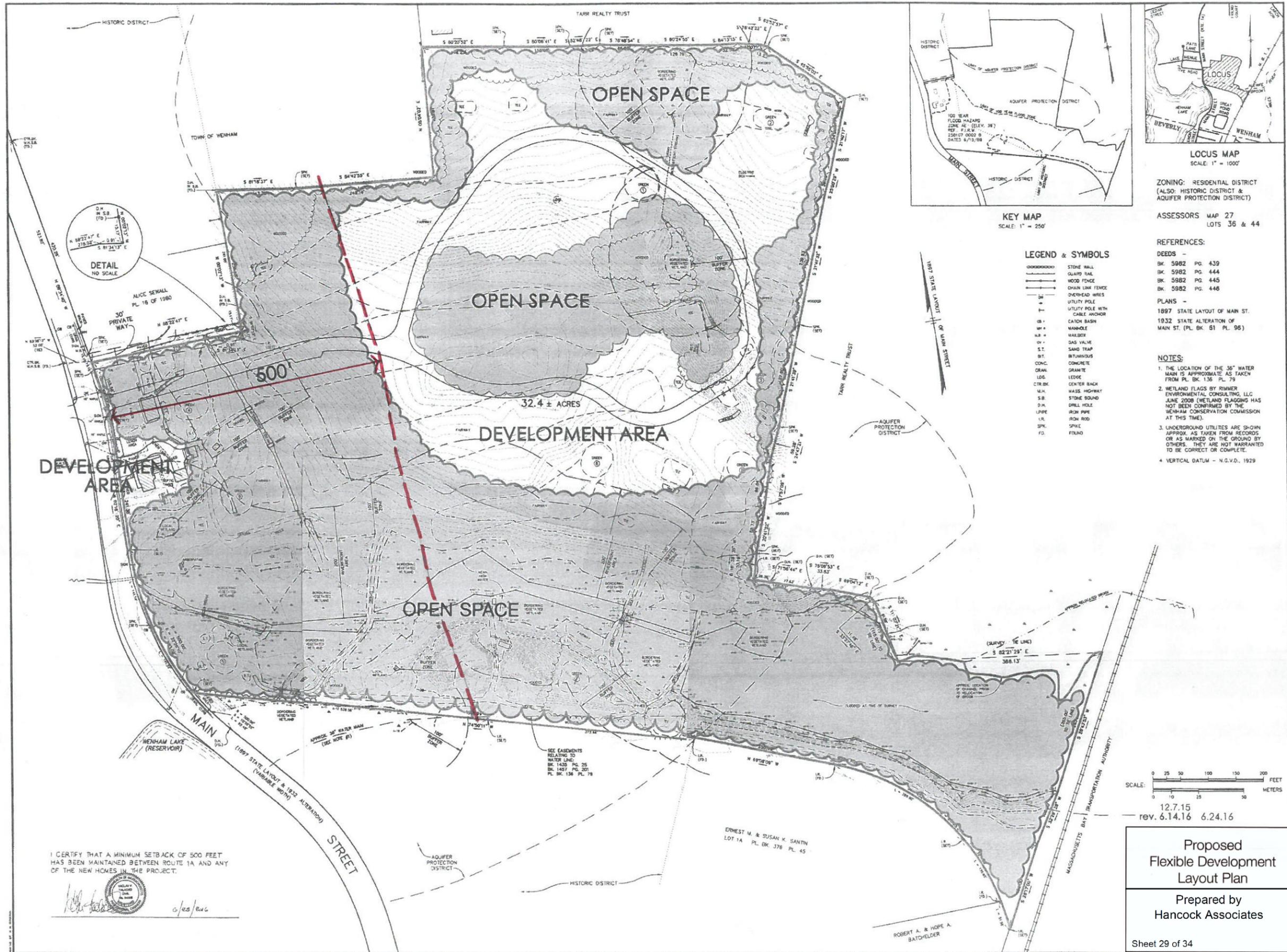
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1	JPC	RAT	10/5/16	PLANNING BOARD COMMENTS
NO.	BY	APP	DATE	ISSUE/REVISION DESCRIPTION
DATE:	7/19/2016	DESIGN BY:	RAT	
SCALE:	1"=80'	DRAWN BY:	JPC	
APPRVD. BY:	VVT	CHECK BY:	RAT	

OPEN SPACE PLAN
 PLOT DATE: Oct 10, 2016 6:31 pm
 PATH: F:\Ch4 30 Projects\19400\DWG\DWG: 19400C1 Open Space Calcs.dwg
 LAYOUT: OPEN SPACE
 SHEET: 30 OF 36
 PROJECT NO.: **19400**





KEY MAP
SCALE: 1" = 250'

LOCUS MAP
SCALE: 1" = 1000'

ZONING: RESIDENTIAL DISTRICT
(ALSO: HISTORIC DISTRICT & AQUIFER PROTECTION DISTRICT)

ASSESSORS MAP 27
LOTS 36 & 44

REFERENCES:

- DEEDS -
BK. 5982 PG. 439
BK. 5982 PG. 444
BK. 5982 PG. 445
BK. 5982 PG. 448

- PLANS -
1897 STATE LAYOUT OF MAIN ST.
1932 STATE ALTERATION OF MAIN ST. (PL. BK. 81 PL. 96)

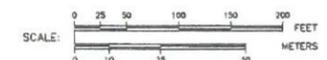
NOTES:

1. THE LOCATION OF THE 36" WATER MAIN IS APPROXIMATE AS TAKEN FROM PL. BK. 136 PL. 79.
2. WETLAND FLAGS BY SUMNER ENVIRONMENTAL CONSULTING, LLC JUNE 2008 (WETLAND FLAGGING HAS NOT BEEN CONFIRMED BY THE WRENTHAM CONSERVATION COMMISSION AT THIS TIME).
3. UNDERGROUND UTILITIES ARE SHOWN APPROX. AS TAKEN FROM RECORDS OR AS MARKED ON THE GROUND BY OTHERS. THEY ARE NOT WARRANTED TO BE CORRECT OR COMPLETE.
4. VERTICAL DATUM - N.G.V.D., 1929

LEGEND & SYMBOLS

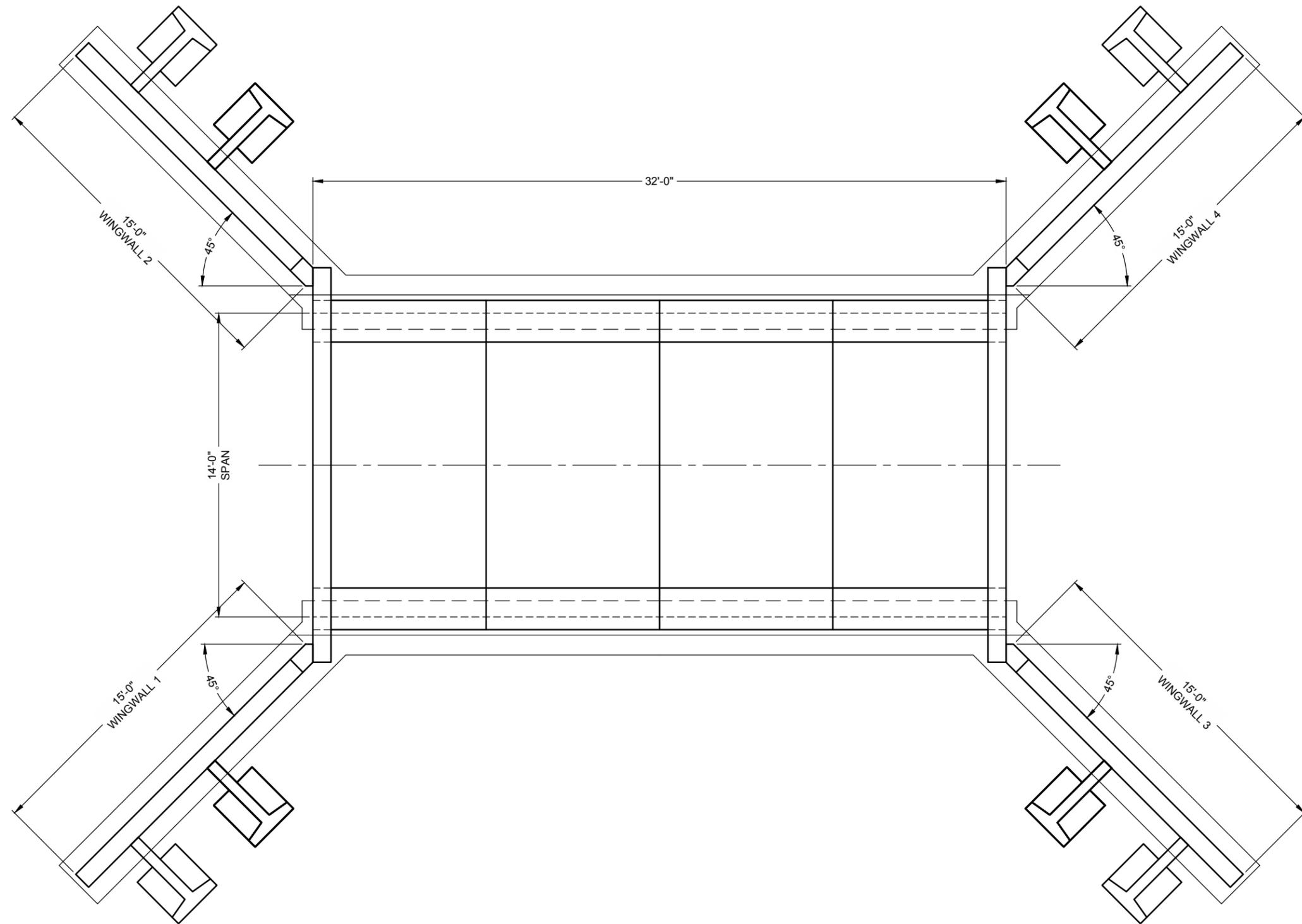
- STONE WALL
- GUARD RAIL
- WOOD FENCE
- CHAIN LINK FENCE
- OVERHEAD WIRES
- UTILITY POLE
- UTILITY POLE WITH CABLE ANCHOR
- CB + CATCH BASIN
- HW + MANHOLE
- MB + MAILBOX
- GV + GAS VALVE
- S.T. SAND TRAP
- BT. BITUMINOUS
- CONC. CONCRETE
- GRAN. GRANITE
- LOC. LEDGE
- CTR.BK. CENTER BACK
- M.H. MASS. HIGHWAY
- S.B. STONE SOUND
- S.H. SHIEL HOLE
- PIPE IRON PIPE
- LR. R.O.M. ROAD
- SPK. SPIKE
- FD. FOUND

I CERTIFY THAT A MINIMUM SETBACK OF 500 FEET HAS BEEN MAINTAINED BETWEEN ROUTE 1A AND ANY OF THE NEW HOMES IN THE PROJECT.



12.7.15
rev. 6.14.16 6.24.16

Proposed Flexible Development Layout Plan
Prepared by Hancock Associates



BRIDGE PLAN

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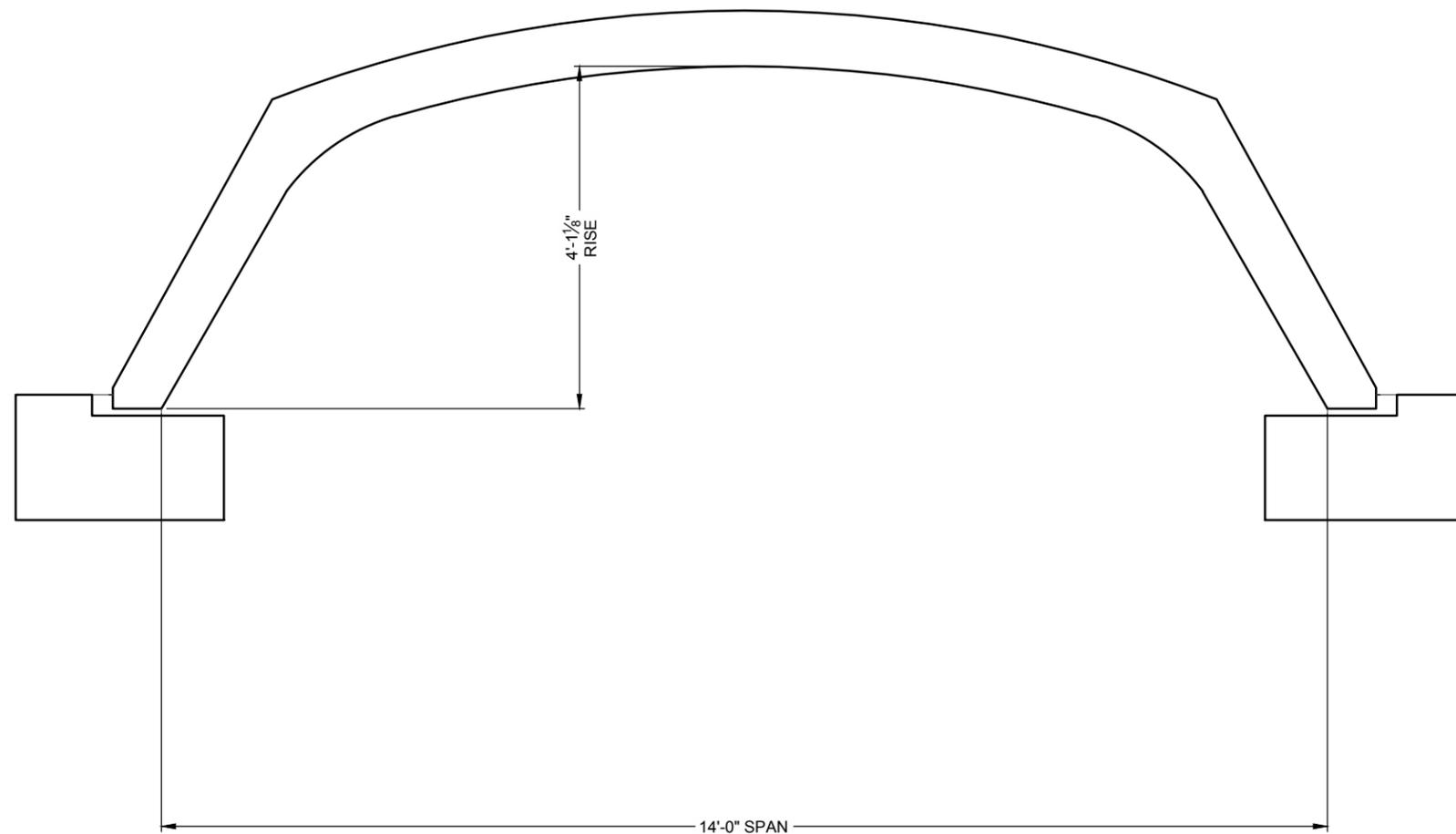
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CON/SPAN
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DRAWING

Wenham Pines
CON/SPAN O-Series O114 14'-0" Span x 4'-1 1/4" Rise
1 Cell - 32' Long
Wenham, Massachusetts

PROJECT No.: 208947	SEQ. No.:	DATE: 5/31/2016
DESIGNED: DYOB	DRAWN: DYOB	
CHECKED: DYOB	APPROVED: DYOB	
SHEET NO.: 1 of 5		



CROSS SECTION

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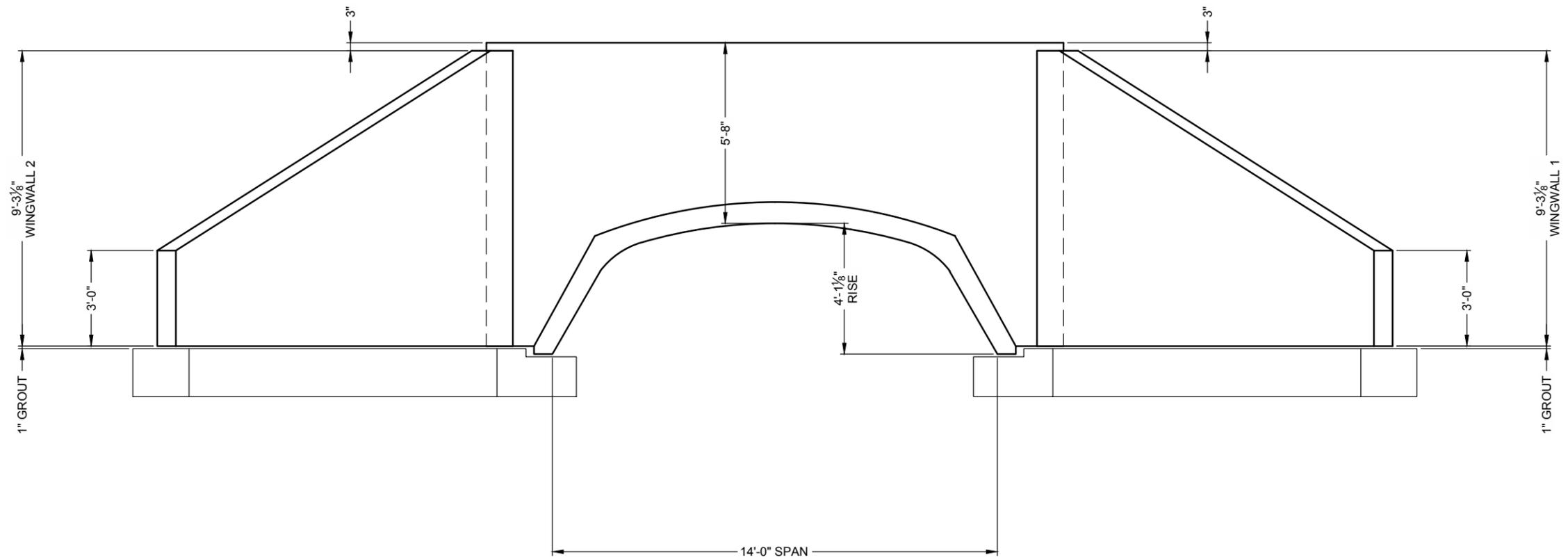
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SHEET NO.: 2 OF 5		



UPSTREAM END ELEVATION

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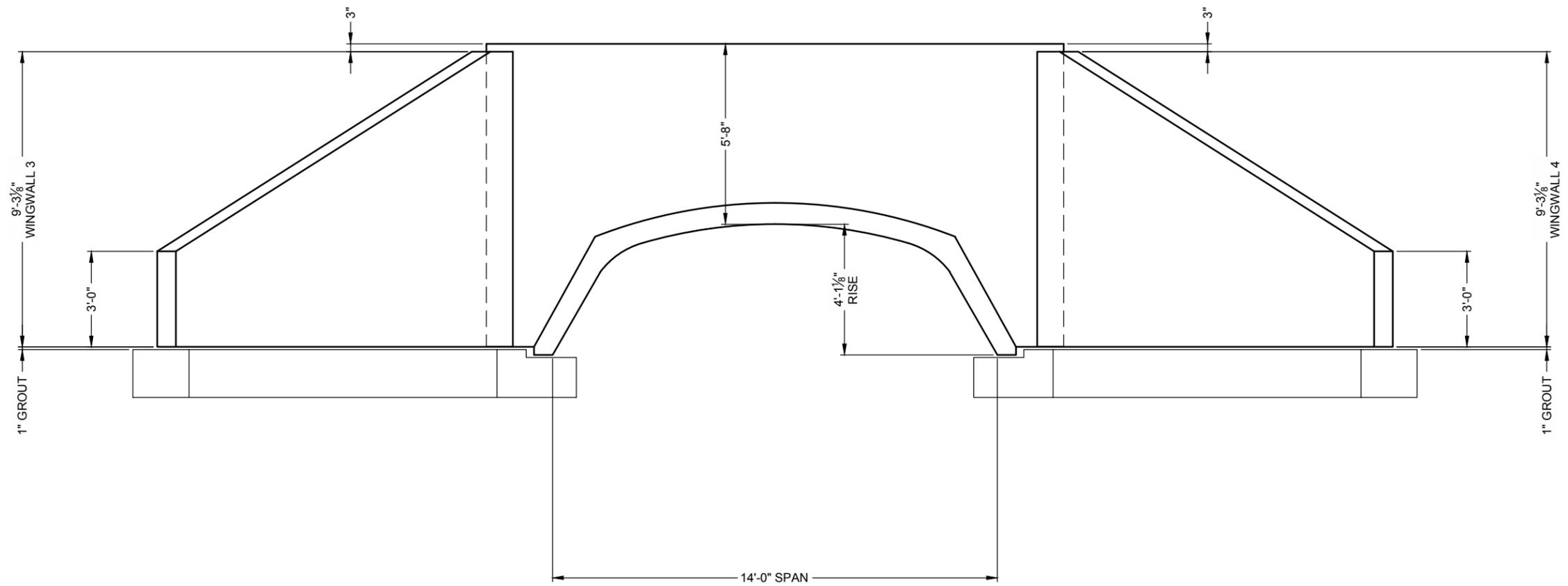
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DESIGNED: DYOB	DRAWN: DYOB	
CHECKED: DYOB	APPROVED: DYOB	
SHEET NO.: 3 OF 5		



DOWNSTREAM END ELEVATION

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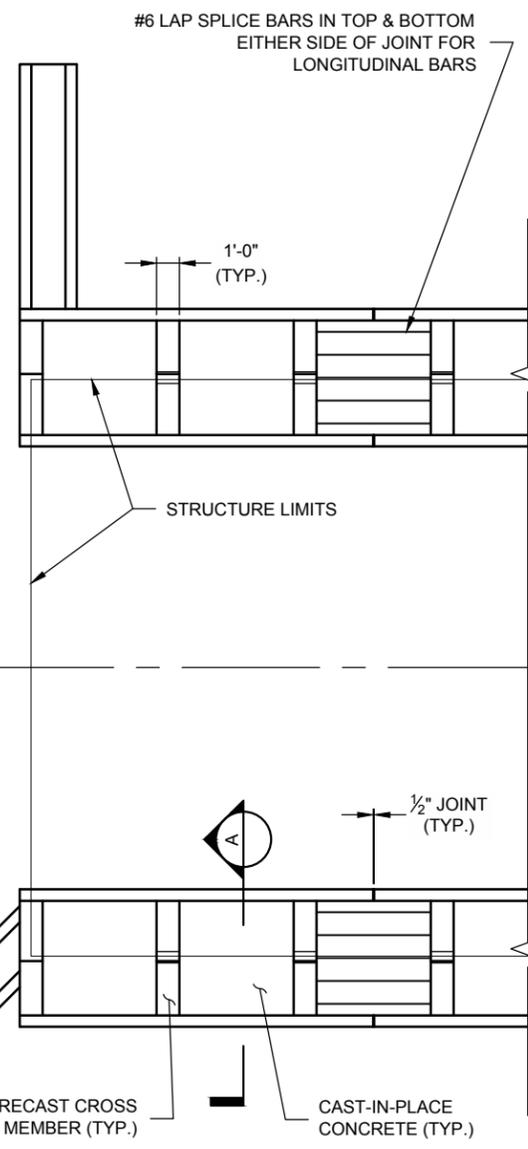
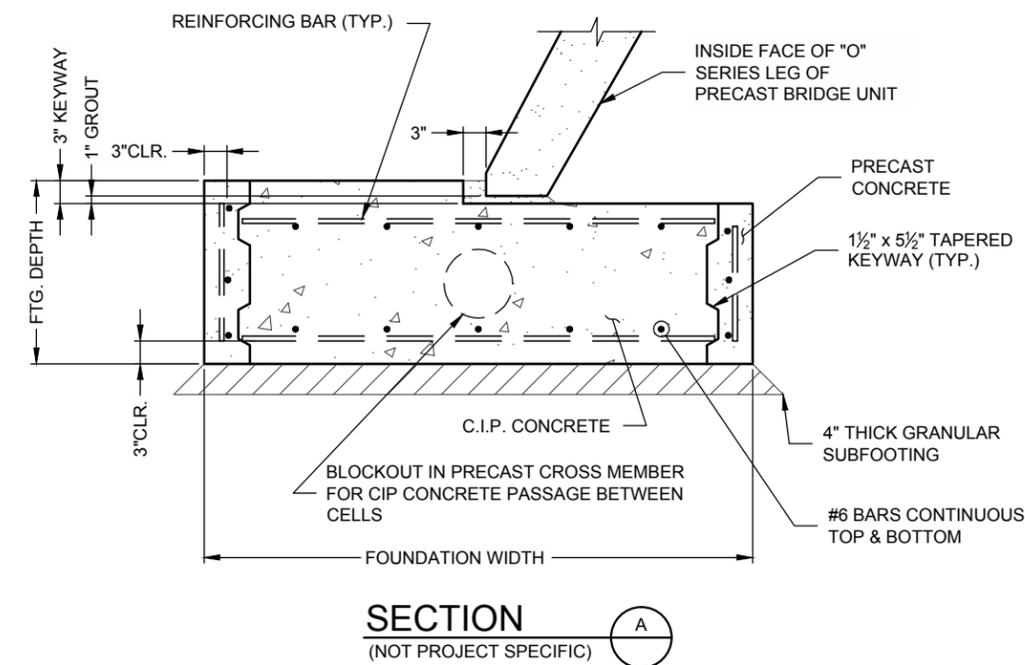
Wenham Pines
CON/SPAN O-Series O114 14'-0" Span x 4'-1 1/4" Rise
1 Cell - 32' Long
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PROJECT No.: 208947	SEQ. No.:	DATE: 5/31/2016
DESIGNED: DYOB	DRAWN: DYOB	
CHECKED: DYOB	APPROVED: DYOB	
SHEET NO.: 4 OF 5		

EXPRESS FOUNDATIONS

EXPRESS FOUNDATIONS

SAMPLE DRAWING ONLY



SAMPLE PARTIAL FOUNDATION PLAN (NOT PROJECT SPECIFIC)



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CHECKED: DYOB	APPROVED: DYOB	
SHEET No.: 5 of 5		