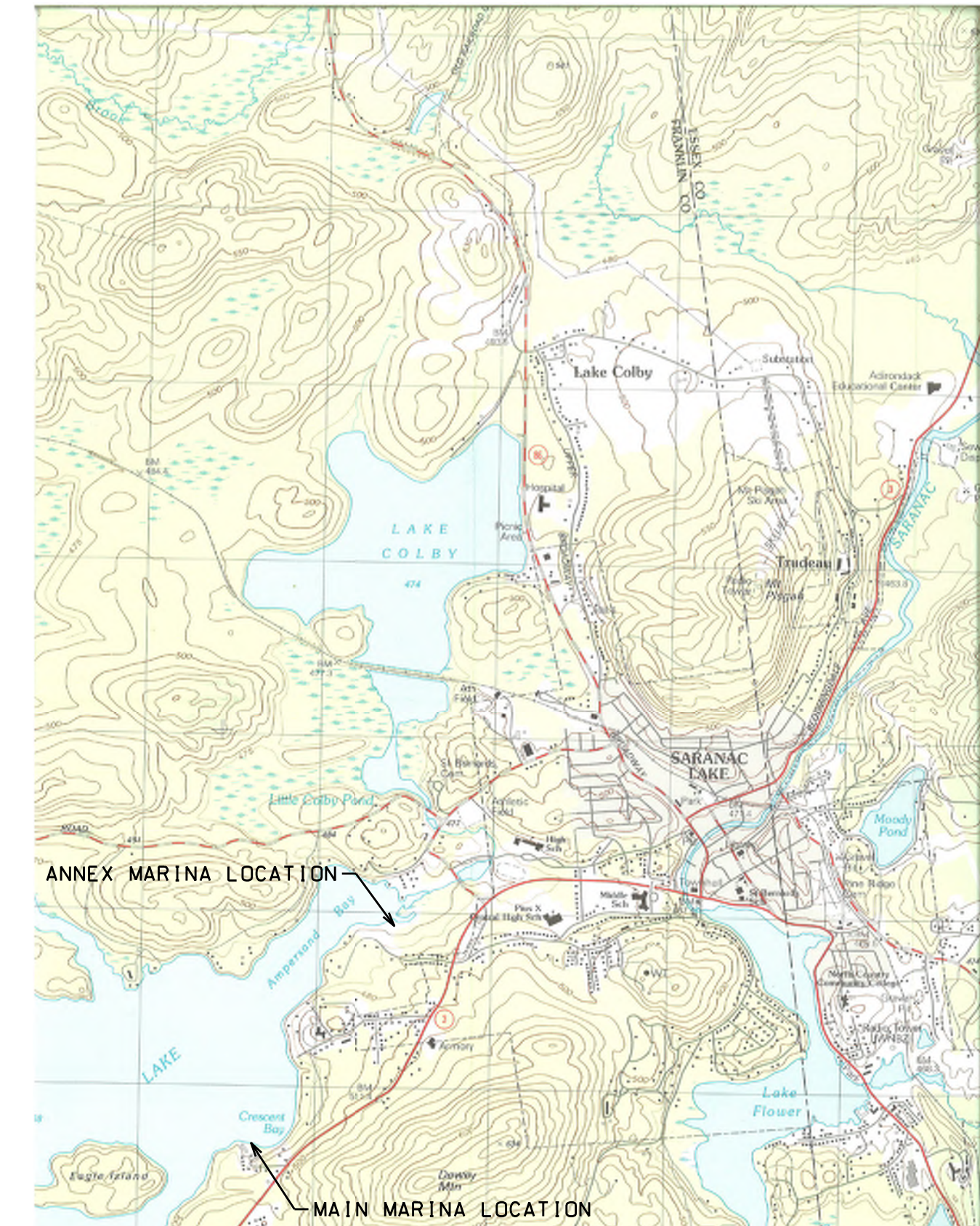
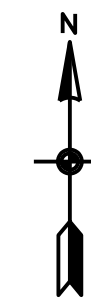


LS MARINA, LLC SARANAC LAKE MARINA SARANAC LAKE, NY



LOCATION MAP



North Woods
Engineering P.L.L.C.
348 Lake Street
Saranac Lake, NY 12983
(518) 891-4975
www.north-woods-engineering.com
New York State Certified
Service-Disabled Veteran-Owned Business



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LS MARINA, LLC
SARANAC LAKE MARINA

LIST OF ABBREVIATIONS

AB	ANCHOR BOLT	GA	GAUGE	SB	SETBACK
AESS	ARCHITECTURALLY EXPOSED STRUCTURAL STEEL	GALV	GALVANIZED	SC	SOLID CORE
AFF	ABOVE FINISH FLOOR	GC	GENERAL CONTRACTOR	SCHED	SCHEDULE
ALUM	ALUMINUM	HC	HOLLOW CORE	SEAL	CONCRETE SEALER
ALT	ALTERNATE	HORZ	HORIZONTAL	SF	SQUARE FOOT
APPROX	APPROXIMATE	HT	HEIGHT	SIM	SIMILAR
ARCH	ARCHITECTURAL	IAW	IN ACCORDANCE WITH	SPEC	SPECIFICATION
BM	BENCH MARK	ID	INSIDE DIAMETER	SQ	SQUARE
BLDG	BUILDING	INC	INCLUDING	SST	STAINLESS STEEL
BRK	BREAK	LLH	LONG LEG HORIZONTAL	STD	STANDARD
BJ	BAR JOIST	LLV	LONG LEG VERTICAL	STL	STEEL
CIP	CAST IN PLACE CONSTRUCTION JOINT	MAT'L	MATERIAL	STR	STRAIGHT
CJ	CONTROL JOINT	MAS	MASONRY	STRUCT	STRUCTURAL
CLR	CLEAR	MAX	MAXIMUM	T&B	TOP AND BOTTOM
CM	CONSTRUCTION MANAGER	MFR	MANUFACTURER	TC	TERRA COTTA
CMU	CONCRETE MASONRY UNIT	MIN	MINIMUM	TOF	TOP OF
COL	COLUMN	MO	MASONRY OPENING	TOBP	TOP OF BEAM POCKET
CONN	CONNECTION	MTL	METAL	TOP	TOP OF FOOTER
CONT	CONTINUOUS	N	NORTH	TOP	TOP OF PIER
CONTR	CONTRACTOR	NIC	NOT IN CONTRACT	TOS	TOP OF SLAB
CY	CUBIC YARD	NO	NUMBER	TOST	TOP OF STEEL
DET	DETAIL	NOM	NOMINAL	TOW	TOP OF WALL
DIA	DIAMETER	NTS	NOT TO SCALE	TYP	TYPICAL
DIM	DIMENSION	OC	ON CENTER	UNO	UNLESS NOTED OTHERWISE
DN	DOWN	OD	OUTSIDE DIAMETER	UTIL	UTILITY
DD	DITTO	PCF	POUNDS PER CUBIC FOOT	VB	VAPOR BARRIER
DWG	DRAWING	PSF	POUNDS PER SQUARE FOOT	VERT	VERTICAL
EC	ELECTRICAL CONTRACTOR	RAD	RADIUS	VIF	VERIFY IN FIELD
EJ	EXPANSION JOINT	REINF	REINFORCED/REINFORCEMENT	W	WEST
EL	ELEVATION	REQ	REQUIRED	W/O	WITHOUT
ES	EXPOSED STRUCTURAL	REV	REVISION	W/W	WALL TO WALL
ETR	EXISTING TO REMAIN	RO	ROUGH OPENING	WWM	WELDED WIRE MESH
EW	EACH WAY	RP	RIGGING POINT	WS	WALL STEP
EXIST	EXISTING				
EXP	EXPANSION				
EXT	EXTERIOR				
FFE	FINISH FLOOR ELEVATION				
FL	FLOOR				
FND	FOUNDATION				
FR	FIRE RESISTANT				
FRM	FORMER				
FTG	FOOTING				
FS	FOOTING STEP				

SHEET INDEX

COV	COVER	D10	MAIN MARINA- DEMOLITION PLAN
D20	ANNEX MARINA- DEMOLITION PLAN	D20	ANNEX MARINA- DEMOLITION PLAN
C10	MAIN MARINA- OVERALL SITE PLAN	C11	MAIN MARINA- UPPER SITE PLAN
C12	MAIN MARINA- LOWER SITE PLAN	C13	MAIN MARINA- UPPER SITE PREPARATION, EROSION & SEDIMENT CONTROL PLAN
C14	MAIN MARINA- LOWER SITE PREPARATION, EROSION & SEDIMENT CONTROL PLAN	C15	MAIN MARINA- UPPER GRADING & DRAINAGE PLAN
C16	MAIN MARINA- LOWER GRADING & DRAINAGE PLAN	C17	MAIN MARINA- UTILITY PLAN
C18	MAIN MARINA- BOAT LAUNCH PLAN	C19	MAIN MARINA- GRADING PLAN- BOAT LAUNCH
C20	ANNEX MARINA- OVERALL SITE PLAN	C21	ANNEX MARINA- SITE PREPARATION, EROSION & SEDIMENT CONTROL PLAN
C22	ANNEX MARINA- PLANTING PLAN	C23	ANNEX MARINA- BOAT LAUNCH PLAN & SECTIONS
C30	MAIN MARINA- OVERLAY PLAN	C31	ANNEX MARINA- OVERLAY PLAN
C32	MARINA OVERLAY TABLES	C33	MAIN MARINA- SHORELINE VARIANCE PLAN
C40	MAIN MARINA- AQUATIC VEGETATION PLAN	C41	ANNEX MARINA- AQUATIC VEGETATION PLAN
C50	SITE DETAILS	C51	SITE DETAILS
C52	SITE DETAILS	C53	UTILITY DETAILS
C54	UTILITY DETAILS	C55	UTILITY DETAILS

LAND USE AND ZONING CLASSIFICATION

HAMLET (APA)
B-3 RESORT BUSINESS (TOWN OF HARRIETSTOWN)

LOT SIZE
MIN AREA: 2 AC
MIN. LOT WIDTH: 150 FT

BUILDING SETBACKS
FRONT: 50'
REAR: 25'
SIDE: 25'
SHORELINE: 50'

PRINCIPAL BUILDING:
HEIGHT: 40'
DENSITY: 30%

SYMBOLS LEGEND

DEMOLITION SYMBOL		
DETAIL MARK		DETAIL NUMBER SHEET WHERE DETAIL IS SHOWN
SECTION MARK		SECTION NUMBER SHEET WHERE SECTION IS SHOWN
REFERENCE ELEVATION		
REPAIR KEYNOTE		

PROJECT NAME

LOCATION
4901 NYS ROUTE 3
SARANAC LAKE, NEW YORK

DATE	ISSUED FOR	REV
05-01-20	APA PERMITTING	
03-30-23	OWNER CHANGES	A

DRAWN BY: BMD/KMR
CHECKED BY: JA GARSO
PROJECT #: 19-061
ORIGINAL 24"x36"

TITLE

COVER

SHEET

COV



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LS MARINA, LLC
SARANAC LAKE MARINA

PROJECT NAME
 LOCATION

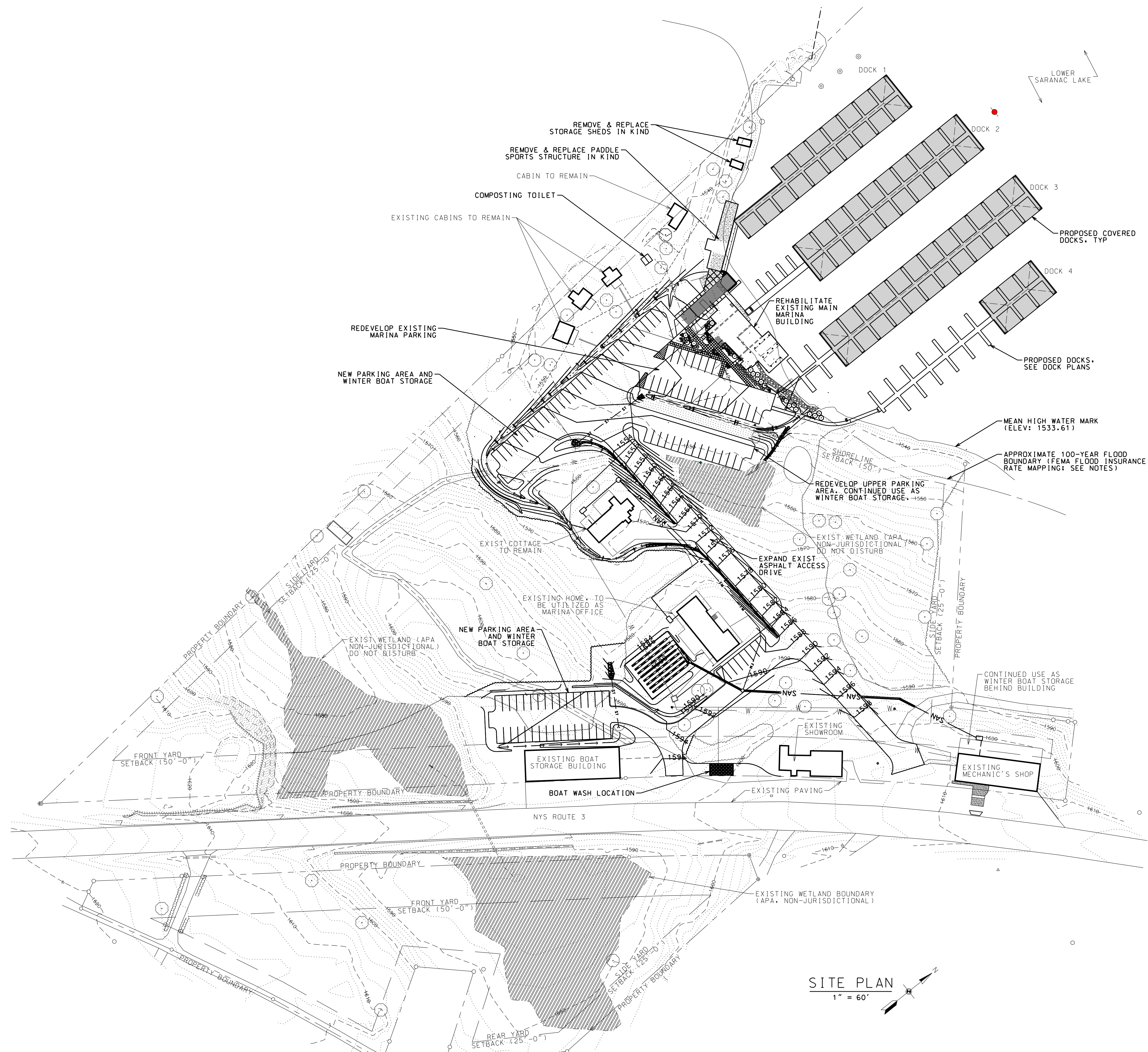
4901 NYS ROUTE 3
 SARANAC LAKE, NEW YORK

DATE	ISSUED FOR	REV
05-01-20	APA PERMITTING	
06-04-20	APA SUPPLEMENT	A
07-16-20	OWNER CHANGES	B
09-21-20	LITTORAL RIGHTS	C
03-30-23	OWNER CHANGES	D

DRAWN BY: BMD/KMR
 CHECKED BY: JA GARSO
 PROJECT #: 19-061
 ORIGINAL 24"x36"

TITLE
**MAIN MARINA
 OVERALL SITE
 PLAN**

SHEET
C10



LEGEND

- PROPERTY BOUNDARY
- EXISTING CONTOUR
- SETBACK
- MEAN HIGH WATER MARK
- 100-YEAR FLOOD BOUNDARY
- PLANTING AREA
- WETLAND
- COVERED PORTION OF DOCKS

- NOTES:**
1. APA LAND USE CLASSIFICATION: HAMLET
 2. WETLANDS DELINEATED SUMMER OF 2014.
 3. FLOOD BOUNDARY IS FROM BEST-FIT FEMA PANELS. THERE IS NO FEMA DESIGNATED FLOODWAY FOR LOWER SARANAC LAKE.

SITE PLAN
 1" = 60'

PLANT SCHEDULE

SYM.	QTY.	BOTANICAL NAME	COMMON NAME	SIZE
DECIDUOUS SHADE TREES				
AR		Acer rubrum	Red Maple	2.5"-3.5" cal.
AS		Acer saccharum 'Green Mountain'	Green Mountain Sugar Maple	2.5"-3.5" cal.
BA		Betula alleghaniensis	Yellow Birch	2.5"-3.5" cal.
BN		Betula nigra 'Heritage'	Heritage River Birch	2.5"-3.5" cal.
BP		Betula papyrifera	Paper Birch	14"-20" ht.
CB		Carpinus caroliniana	American Hornbeam	2.5"-3.5" cal.
QB		Quercus rubra	Northern Red Oak	2.5"-3.5" cal.
ORNAMENTAL TREES				
AM		Amelanchier x grandiflora 'Autumn Brilliance'	Autumn Brilliance Serviceberry	2"-2.5" cal.
AMA		Amelanchier arborea	Downy Serviceberry	2"-2.5" cal.
AG		Amelanchier canadensis	Shadblow serviceberry	2"-2.5" cal.
CV		Crataegus viridis 'Winter King'	Green Hawthorn	2"-2.5" cal.
MA		Malus 'Adirondack'	Adirondack Crabapple	2"-2.5" cal.
MD		Malus 'Dolgo'	Dolgo Crabapple	2"-2.5" cal.
MSS		Malus 'Snowdrift'	Snowdrift Crabapple	2"-2.5" cal.
EVERGREEN TREES				
AB		Abies balsamea	Balsam Fir	6"-12" ht.
PG		Picea glauca	White Spruce	6"-12" ht.
PP		Picea pungens	Colorado Spruce	6"-12" ht.
PS		Pinus strobus	Eastern White Pine	6"-12" ht.
JV		Juniperus virginiana	Eastern Red Cedar	6"-8" ht.
TC		Tsuga canadensis	Canadian Hemlock	6"-12" ht.
SHRUBS				
AA		Aronia arbutifolia	Red Chokeberry	2'-3' ht.
CA		Celastrus alnifolia 'Hummingbird'	Summersweet	30'-36" ht.
CB		Cornus alba 'Bohotal'	Ivory Halo Dogwood	30'-36" ht.
CAL		Cornus alternifolia	Pagoda Dogwood	18"-24" ht.
CS1		Cornus sericea	Redosier Dogwood	18"-24" ht.
CS2		Cornus sericea 'Farrow'	Redosier Dogwood	2'-3' ht.
CP		Comptonia peregrina	Sweetfern	12"-15" ht.
HP		Hypericum prolificum	St. John's Wort	18"-24" ht.
HV		Hamamelis virginiana	Common Witchhazel	2'-3' ht.
IG		Ilex glabra 'Shamrock'	Compact Inkberry	24"-30" ht.
IVR		Ilex verticillata 'Red Sprite'	Common Winterberry 'Red Sprite'	2'-3' ht.
IVM		Ilex verticillata 'Jim Dandy'	Common Winterberry 'Jim Dandy'	2'-3' ht.
JH		Juniperus horizontalis	Creeping Juniper	15"-18" spr.
KL		Kalmia latifolia	Mountain Laurel	18"-24" ht.
MP		Myrica pennsylvanica	Northern Bayberry	24"-36" ht.
RV		Rhododendron viscosum	Swamp Azalea	30'-36" ht.
TO		Tuja occidentalis 'Smaragd'	Emerald Arborvitae	5'-6" ht.
VC		Vaccinium corymbosum	Highbush Blueberry	2'-3' ht.
VD		Viburnum dentatum	Arrowwood Viburnum	2'-3' ht.
VT		Viburnum trilobum	American Cranberrybush	18"-24" ht.
GROUNDCOVERS / PERENNIALS / GRASSES / FERNS				
AN		Aster novae-angliae	New England Aster	2 gal.
AT		Asclepias tuberosa	Butterfly Weed	2 gal.
EP		Echinacea purpurea	Purple Coneflower	2 gal.
GP		Gaultheria procumbens	Wintergreen	1 gal.
IV		Iris versicolor	Blue Flag Iris	1 gal.
LC		Lobelia cardinalis	Cardinal Flower	1 gal.
MD		Monarda didyma	Beebalm	2 gal.
OC		Osmunda cinnamomea	Cinnamon Fern	1 gal.
OP		Dennstaedtia punctilobula	Hay Scented Fern	1 gal.
OR		Osmunda regalis	Royal Fern	1 gal.
PAC		Polystichum acrostichoides	Christmas Fern	1 gal.
PV		Panicum virgatum	Switch Grass	2 gal.
RH		Rudbeckia 'Hirta'	Black-Eyed Susan	2 gal.
TC		Tiarella cordifolia	Foam Flower	1 gal.
VA		Vaccinium angustifolium	Lowbush Blueberry	1 gal.

PLANTING NOTES

1. ALL NEW PLANT MATERIAL SHALL CONFORM TO THE MINIMAL GUIDELINES ESTABLISHED BY THE AMERICAN STANDARD FOR NURSERY STOCK PUBLISHED BY THE AMERICAN ASSOCIATION OF NURSERYMEN, INC. ALL NEW MATERIAL FOR THE PROJECT SHALL BE OF SPECIMEN QUALITY UNLESS APPROVED OTHERWISE BY OWNER'S REPRESENTATIVE.
2. PLANT SCHEDULE REPRESENTS A LIST OF POTENTIAL SPECIES TO BE UTILIZED DURING PROJECT DEVELOPMENT. DETAILED PLANTING PLANS WILL BE DEVELOPED DURING CONSTRUCTION DOCUMENT PHASE.
3. ALL NEW PLANTS TO BE BALLED AND BURLAPPED OR CONTAINER GROWN UNLESS OTHERWISE NOTED ON PLANT LIST.
4. ANY PROPOSED SUBSTITUTIONS OF PLANT SPECIES SHALL BE MADE WITH PLANTS OF EQUIVALENT OVERALL FORM, HEIGHT, SIZE, BRANCHING HABIT, FLOWER, LEAF, COLOR, FRUIT AND CULTURE, AND ONLY AFTER WRITTEN APPROVAL OF THE LANDSCAPE ARCHITECT.
5. CONTRACTOR SHALL LOCATE AND VERIFY ALL EXISTING UTILITY LINES PRIOR TO PLANTING AND SHALL REPORT ANY CONFLICTS TO THE OWNER'S REPRESENTATIVE.
6. SEEDED LAWN TO BE PLANTED TO LIMITS OF GRADING IN ALL AREAS.
7. ALL DISTURBED AREAS NOT SCHEDULED FOR PROPOSED WORK SHALL RECEIVE FOUR INCHES (4") OF SUITABLE ON-SITE OR IMPORTED TOPSOIL AND LAWN SEED MIX.
8. SEED MIX SHALL BE 'CONSERVATION MIX' OR 'SOLAR FARM SEED MIX' ERNST SEEDS, OR A BLEND AS FOLLOWS:
 - BOREAL CREEPING RED FESCUE 45%
 - PERENNIAL RYE GRASS 35%
 - KENTUCKY BLUE GRASS 20%



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LS MARINA, LLC
SARANAC LAKE MARINA

PROJECT NAME
 LOCATION
 4901 NYS ROUTE 3
 SARANAC LAKE, NEW YORK

DATE	ISSUED FOR	REV
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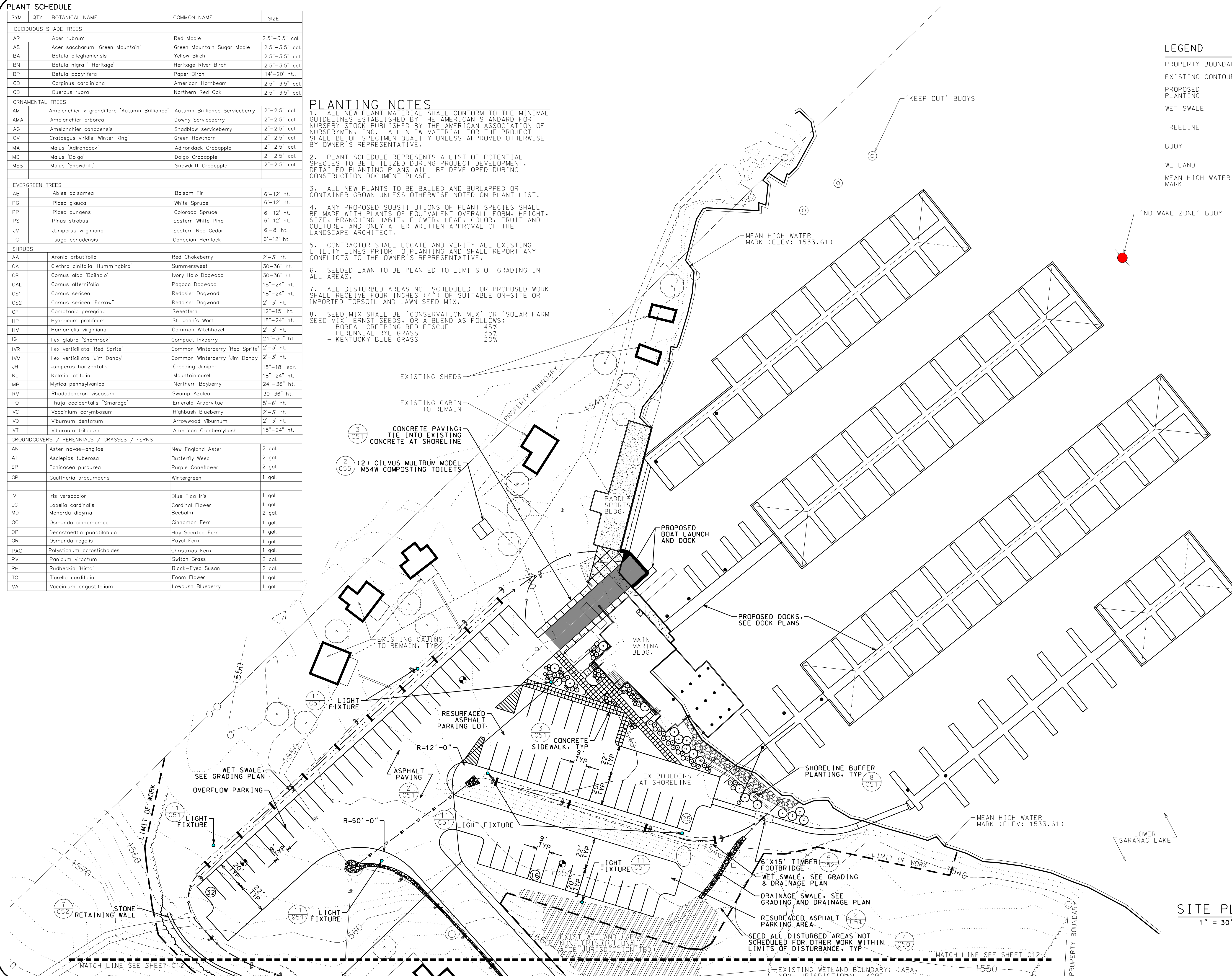
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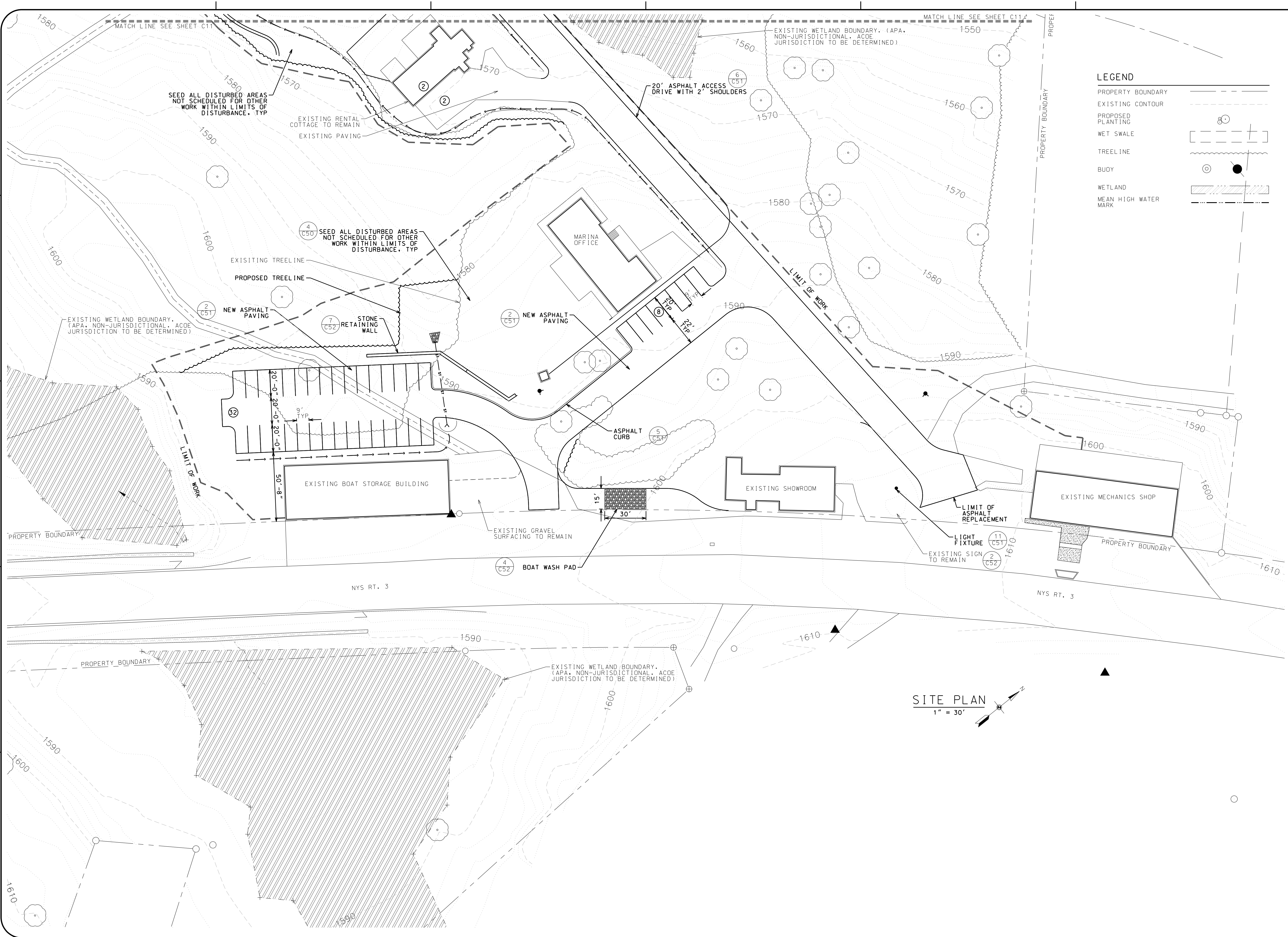
TITLE
MAIN MARINA UPPER SITE PLAN

SHEET
C11

LEGEND

- PROPERTY BOUNDARY
- EXISTING CONTOUR
- PROPOSED PLANTING
- WET SWALE
- TREELINE
- BUOY
- WETLAND
- MEAN HIGH WATER MARK





- LEGEND**
- PROPERTY BOUNDARY
 - EXISTING CONTOUR
 - PROPOSED PLANTING
 - WET SWALE
 - TREELINE
 - BUDY
 - WETLAND
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LS MARINA, LLC
 SARANAC LAKE MARINA

SITE PLAN
 1" = 30'

PROJECT NAME		
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CHECKED BY: JA GARSO		
PROJECT #: 19-061		
ORIGINAL 24"x36"		
TITLE		
MAIN MARINA LOWER SITE PLAN		
SHEET		
C12		

SITE PREPARATION AND SEDIMENT CONTROL NOTES

1. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL ARRANGE PRE-CONSTRUCTION MEETING WITH OWNER/OWNER'S REPRESENTATIVE TO REVIEW ALL APPLICABLE PERMIT CONDITIONS, THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP), THE CONSTRUCTION PLANS AND GENERAL CONSTRUCTION SCHEDULE.
2. A COPY OF THE STORMWATER POLLUTION PREVENTION PLAN MUST BE MAINTAINED ON THE PROJECT SITE AT ALL TIMES DURING CONSTRUCTION.
3. BEFORE ANY CLEARING IS DONE, THE CONTRACTOR SHALL ARRANGE A CONFERENCE ON THE SITE WITH THE LANDSCAPE ARCHITECT TO IDENTIFY TREES WHICH ARE TO BE PROTECTED OR REMOVED. DO NO CLEARING WITHOUT A CLEAR UNDERSTANDING OF EXISTING CONDITIONS TO BE PRESERVED.
4. ALL TEMPORARY EROSION CONTROL MEASURES SHALL BE IN PLACE PRIOR TO ANY EARTH DISTURBING ACTIVITIES. EROSION CONTROL DEVICES SHALL BE REGULARLY INSPECTED AND MAINTAINED TO INSURE SATISFACTORY PERFORMANCE. ANY EROSION DAMAGE OCCURRING DURING THE COURSE OF CONSTRUCTION SHALL BE REPAIRED BY THE CONTRACTOR AT NO EXPENSE TO THE OWNER. ASSOCIATED FINES RESULTING FROM SUCH DAMAGE SHALL ALSO BE PAID BY THE CONTRACTOR.
5. SOIL EROSION AND SEDIMENT CONTROL PRACTICES ON THIS PLAN SHALL BE CONSTRUCTED IN ACCORDANCE WITH NYSDEC NYS STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL.
6. APPLICABLE EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE MAINTAINED IN PLACE UNTIL CONSTRUCTION IS COMPLETED AND/OR THE AREA IS STABILIZED AND APPROVED BY THE OWNER'S REPRESENTATIVE.
7. THE CONTRACTOR SHALL PERFORM ALL WORK, FURNISH ALL MATERIALS AND INSTALL ALL MEASURES REQUIRED TO REASONABLY CONTROL SOIL EROSION RESULTING FROM CONSTRUCTION OPERATIONS AND PREVENT EXCESSIVE FLOW OF SEDIMENT FROM THE CONSTRUCTION SITE.
8. MULCHING IS REQUIRED ON ALL SEEDED AREAS TO PREVENT EROSION BEFORE GRASS IS ESTABLISHED AND TO PROMOTE EARLIER VEGETATION COVER.
9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING TREES AND PLANTS DESIGNATED TO REMAIN FOR THE LENGTH OF THE CONSTRUCTION PERIOD. THE PLACEMENT OF PROTECTION DEVICES ADDITIONAL TO THOSE NOTED SHALL, HOWEVER, BE AT THE CONTRACTOR'S DISCRETION. VEHICLES SHALL NOT BE PARKED WITHIN THE DRIP LINE OR WHERE DAMAGE MAY RESULT TO TREES TO BE SAVED. CONSTRUCTION MATERIALS SHALL NOT BE STORED BENEATH TREES TO BE SAVED.
10. TREE AND SHRUB REMOVAL SHALL INCLUDE THE FILLING, CUTTING, GRUBBING OUT OF ENTIRE ROOT SYSTEM AND SATISFACTORY OFF-SITE DISPOSAL OF ALL TREES, SHRUBS, STUMPS, VEGETATIVE AND EXTRANEOUS DEBRIS PRODUCED THROUGH THE REMOVAL OPERATIONS.
11. ALL ITEMS REQUIRING REMOVAL SHALL BE REMOVED TO FULL DEPTH INCLUDING BASE MATERIAL AND FOOTINGS OR FOUNDATIONS, AS APPLICABLE, AND REUSED AS DIRECTED BY THE OWNER OR LEGALLY DISPOSED OF OFF-SITE BY CONTRACTOR.

12. ALL REFUSE, DEBRIS AND MISCELLANEOUS ITEMS TO BE REMOVED, THAT ARE NOT TO BE STOCKPILED FOR LATER USE ON THE PROJECT OR DELIVERED TO THE OWNER, SHALL BE LEGALLY DISPOSED OF OFF-SITE BY THE CONTRACTOR.
13. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE TO EXISTING CONDITIONS THAT ARE DUE TO CONTRACTOR OPERATIONS AND WHICH ARE OUTSIDE THE LIMIT OF DISTURBANCE.
14. THE GENERAL CONTRACTOR SHALL COORDINATE ALL ADJUSTMENT OR ABANDONMENT OF UTILITIES WITH THE RESPECTIVE UTILITY COMPANY AND PAY ALL ASSOCIATED COSTS.
15. ALL POINTS OF CONSTRUCTION INGRESS AND EGRESS SHALL BE PROTECTED TO PREVENT TRACKING OF MUD ONTO PUBLIC WAYS. ANY MUD ON PUBLIC WAYS ORIGINATING FROM THE JOB SITE SHALL BE CLEANED BY THE CONTRACTOR DAILY.
16. ALL DISTURBED AREAS SHALL BE STABILIZED AS SOON AS POSSIBLE WITH SEED AND STRAW MULCH IN ACCORDANCE WITH THE SWPPP.

LEGEND

- PROPERTY BOUNDARY
- LIMIT OF WORK
- ASPHALT REMOVAL
- BUILDING DEMOLITION
- SILT FENCE
- TURBIDITY CURTAIN
- EXISTING TREE
- EXISTING TREELINE
- TREE TO BE REMOVED
- CHECK DAM
- SWALE
- WETLAND
- MEAN HIGH WATER MARK

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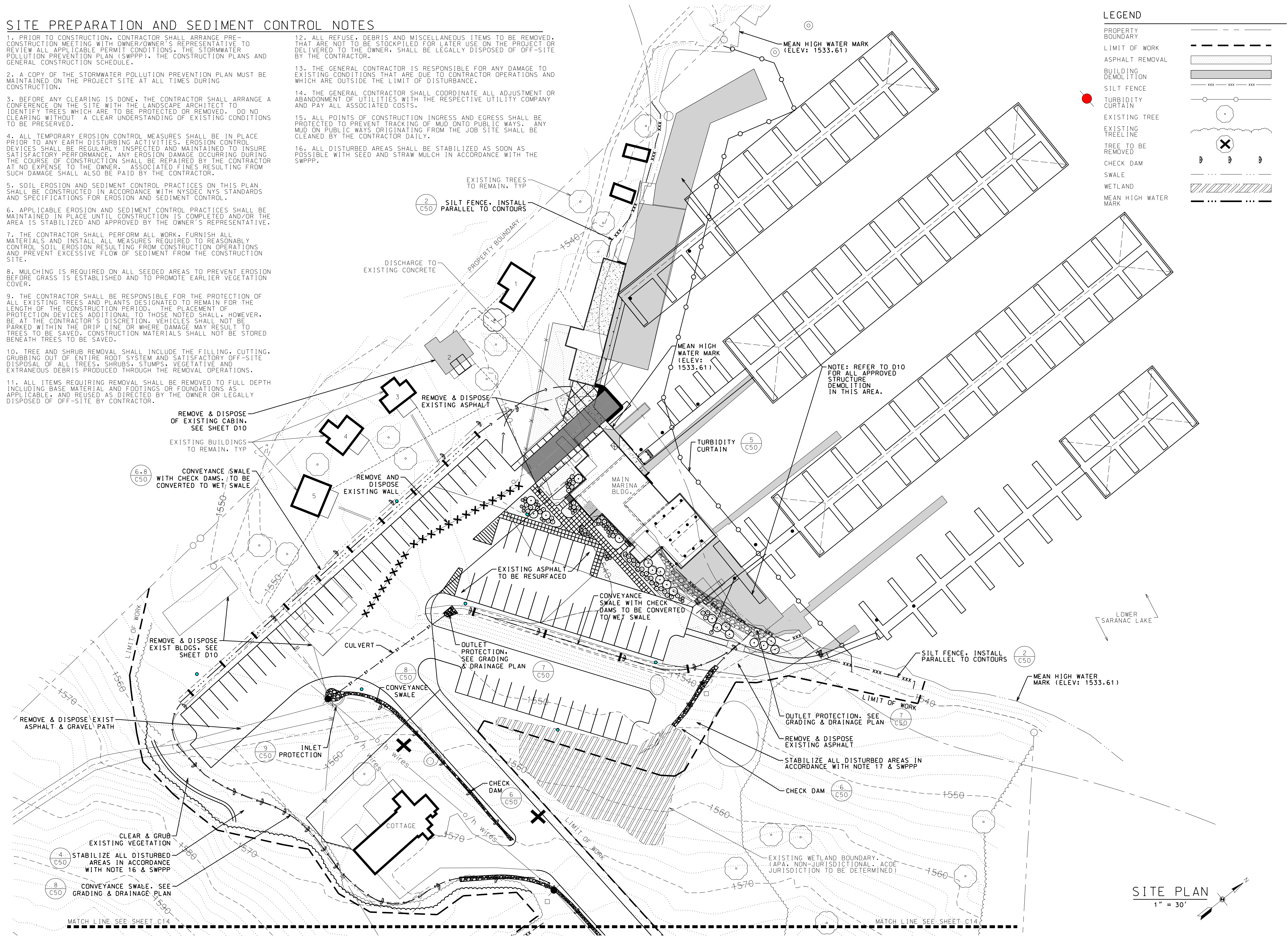
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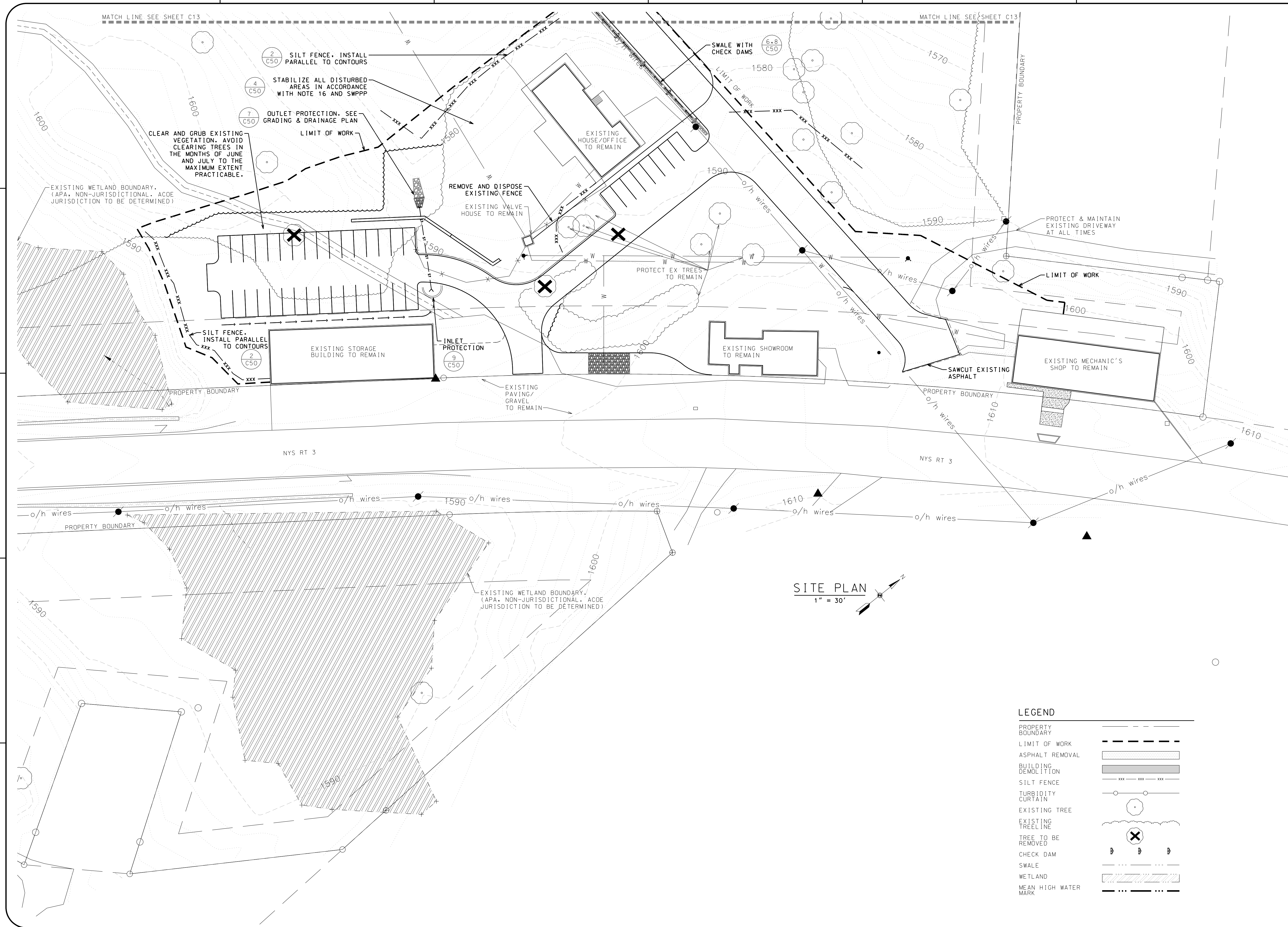
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 ORIGINAL 24"x36"
 TITLE

**MAIN MARINA
 UPPER SITE PREP,
 EROSION &
 SEDIMENT
 CONTROL PLAN**

SHEET
C13



SITE PLAN
 1" = 30'



SITE PLAN
1" = 30'

LEGEND	
PROPERTY BOUNDARY	--- ---
LIMIT OF WORK	--- --- ---
ASPHALT REMOVAL	▨ ▨ ▨ ▨
BUILDING DEMOLITION	▧ ▧ ▧ ▧
SILT FENCE	xxx xxx xxx
TURBIDITY CURTAIN	○ ○ ○ ○
EXISTING TREE	○
EXISTING TREELINE	~ ~ ~ ~
TREE TO BE REMOVED	⊗
CHECK DAM	⊕ ⊕ ⊕
SWALE	--- ---
WETLAND	▨ ▨ ▨ ▨
MEAN HIGH WATER MARK	--- ---

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MAIN MARINA LOWER SITE PREP. EROSION & SEDIMENT CONTROL PLAN

SHEET
C14

GRADING NOTES

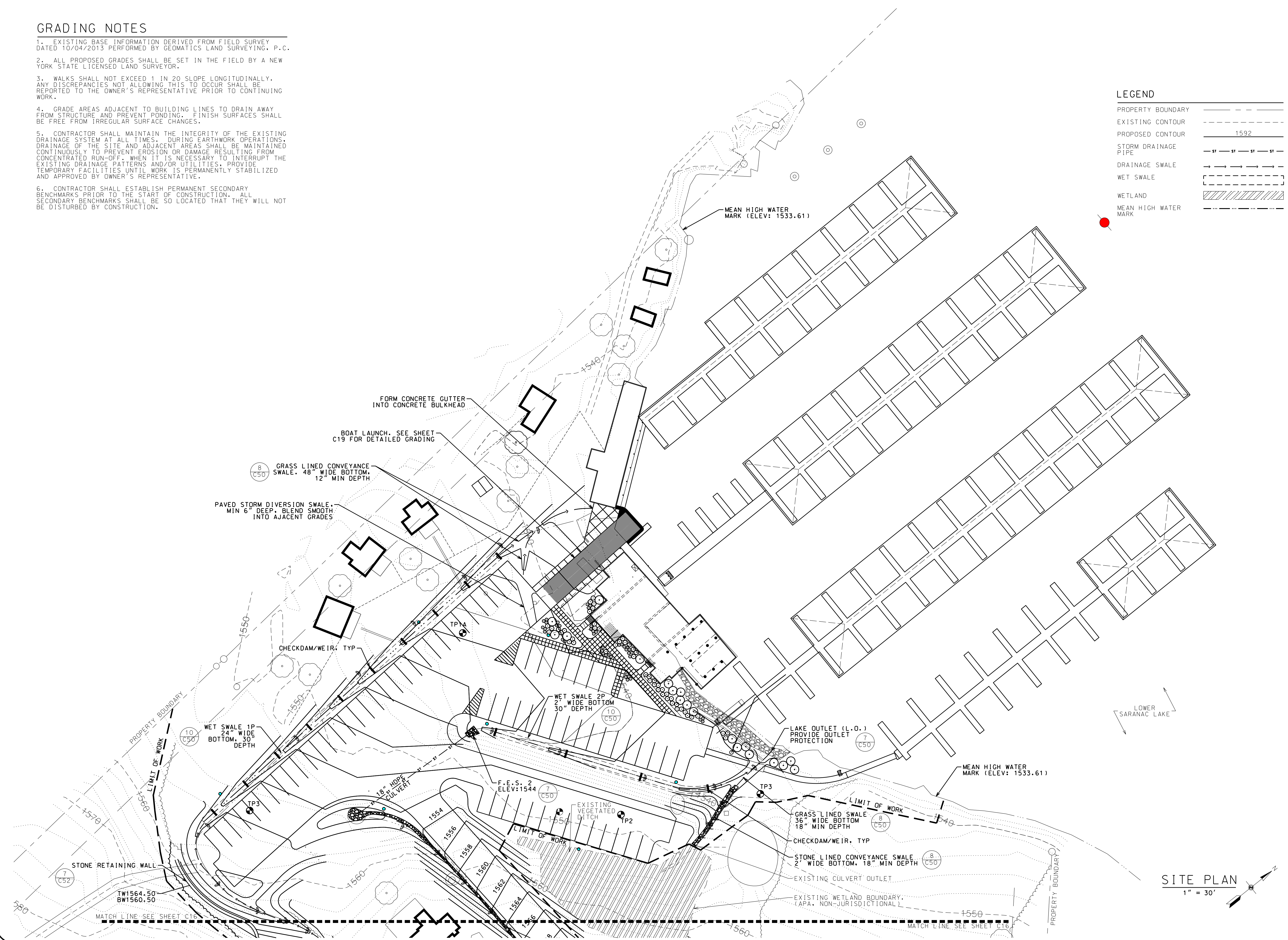
- EXISTING BASE INFORMATION DERIVED FROM FIELD SURVEY DATED 10/04/2013 PERFORMED BY GEOMATICS LAND SURVEYING, P.C.
- ALL PROPOSED GRADES SHALL BE SET IN THE FIELD BY A NEW YORK STATE LICENSED LAND SURVEYOR.
- WALKS SHALL NOT EXCEED 1 IN 20 SLOPE LONGITUDINALLY. ANY DISCREPANCIES NOT ALLOWING THIS TO OCCUR SHALL BE REPORTED TO THE OWNER'S REPRESENTATIVE PRIOR TO CONTINUING WORK.
- GRADE AREAS ADJACENT TO BUILDING LINES TO DRAIN AWAY FROM STRUCTURE AND PREVENT PONDING. FINISH SURFACES SHALL BE FREE FROM IRREGULAR SURFACE CHANGES.
- CONTRACTOR SHALL MAINTAIN THE INTEGRITY OF THE EXISTING DRAINAGE SYSTEM AT ALL TIMES. DURING EARTHWORK OPERATIONS, DRAINAGE OF THE SITE AND ADJACENT AREAS SHALL BE MAINTAINED CONTINUOUSLY TO PREVENT EROSION OR DAMAGE RESULTING FROM CONCENTRATED RUN-OFF. WHEN IT IS NECESSARY TO INTERRUPT THE EXISTING DRAINAGE PATTERNS AND/OR UTILITIES, PROVIDE TEMPORARY FACILITIES UNTIL WORK IS PERMANENTLY STABILIZED AND APPROVED BY OWNER'S REPRESENTATIVE.
- CONTRACTOR SHALL ESTABLISH PERMANENT SECONDARY BENCHMARKS PRIOR TO THE START OF CONSTRUCTION. ALL SECONDARY BENCHMARKS SHALL BE SO LOCATED THAT THEY WILL NOT BE DISTURBED BY CONSTRUCTION.



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LEGEND

- PROPERTY BOUNDARY
- EXISTING CONTOUR
- PROPOSED CONTOUR 1592
- STORM DRAINAGE PIPE
- DRAINAGE SWALE
- WET SWALE
- WETLAND
- MEAN HIGH WATER MARK



L.S. MARINA, LLC
SARANAC LAKE MARINA

PROJECT NAME

LOCATION
 4901 NYS ROUTE 3
 SARANAC LAKE, NEW YORK

DATE	ISSUED FOR	REV
05-01-20	APA PERMITTING	
07-16-20	OWNER CHANGES	A
08-12-20	DEC SUPPLEMENT	B
03-30-23	OWNER CHANGES	C

DRAWN BY: BMD/KMR
 CHECKED BY: JA GARSO
 PROJECT #: 19-061
 ORIGINAL 24"x36"

TITLE
**MAIN MARINA
 UPPER GRADING &
 DRAINAGE PLAN**

SHEET
C15



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LS MARINA, LLC
SARANAC LAKE MARINA

PROJECT NAME
 LOCATION
 4901 NYS ROUTE 3
 SARANAC LAKE, NEW YORK

DATE	ISSUED FOR	REV
05-01-20	APA PERMITTING	

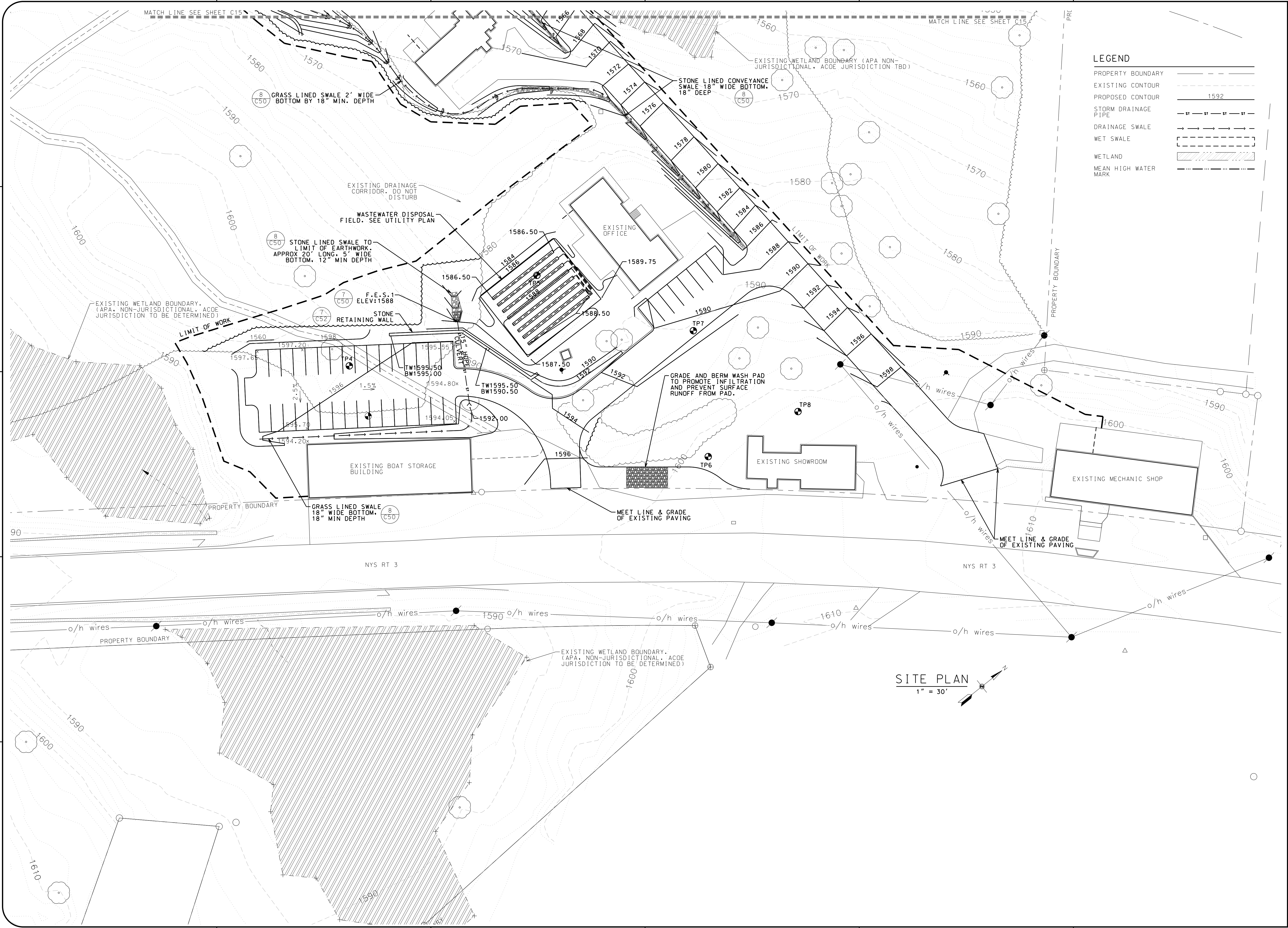
DRAWN BY: BMD/KMR
 CHECKED BY: JA GARSO
 PROJECT #: 19-061
 ORIGINAL 24"x36"

TITLE
**MAIN MARINA
 LOWER GRADING &
 DRAINAGE PLAN**

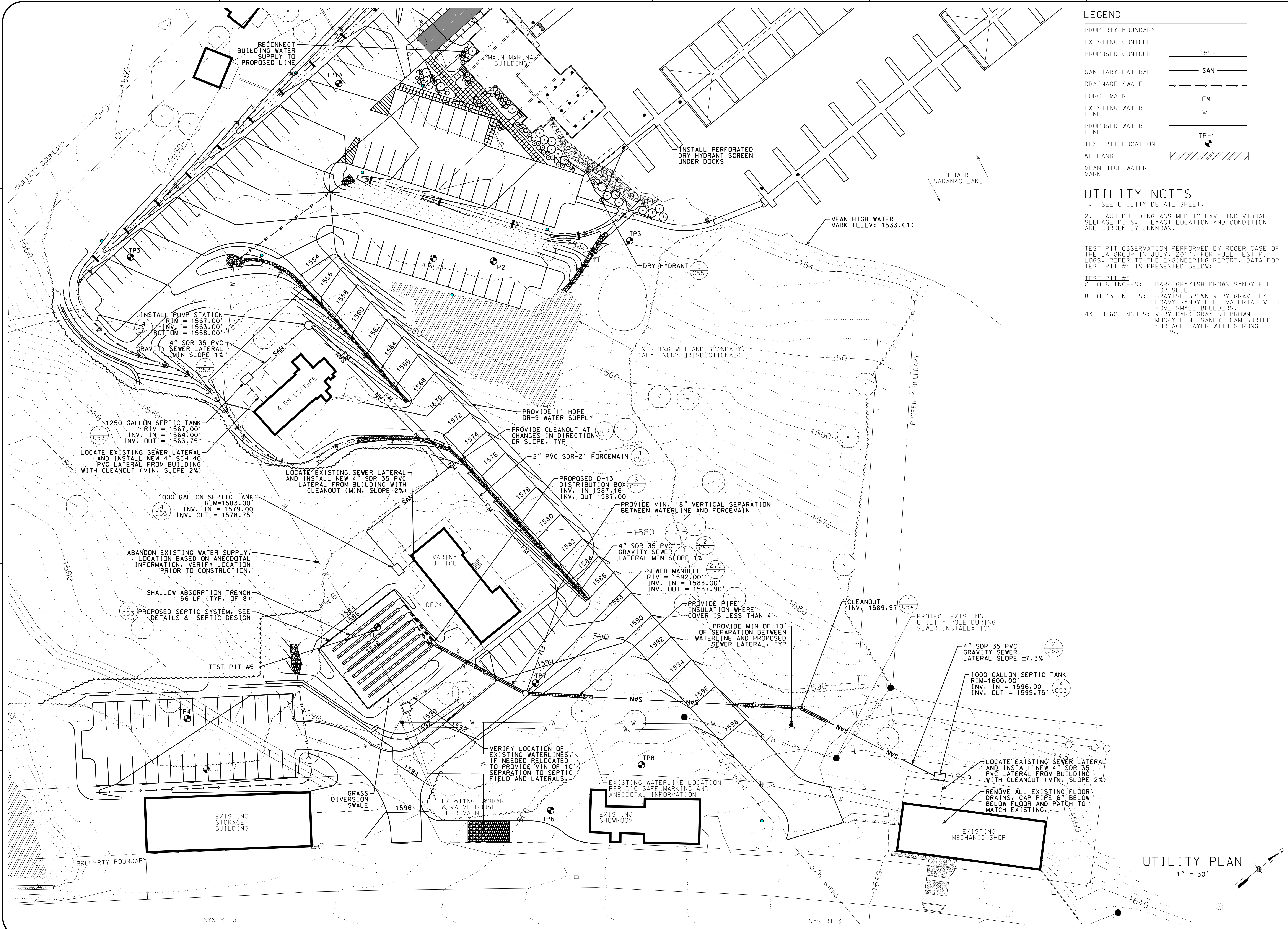
SHEET
C16

LEGEND

- PROPERTY BOUNDARY
- EXISTING CONTOUR
- PROPOSED CONTOUR 1592
- STORM DRAINAGE PIPE
- DRAINAGE SWALE
- WET SWALE
- WETLAND
- MEAN HIGH WATER MARK



SITE PLAN
 1" = 30'



LEGEND

PROPERTY BOUNDARY	---
EXISTING CONTOUR	- - - -
PROPOSED CONTOUR	1592
SANITARY LATERAL	SAN
DRAINAGE SWALE	→ → →
FORCE MAIN	FM
EXISTING WATER LINE	W
PROPOSED WATER LINE	---
TEST PIT LOCATION	TP-1
WETLAND	▨ ▨ ▨ ▨ ▨
MEAN HIGH WATER MARK	---

UTILITY NOTES

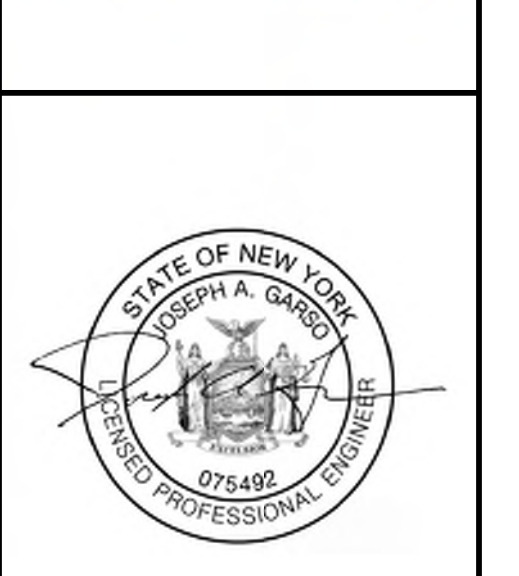
- SEE UTILITY DETAIL SHEET.
- EACH BUILDING ASSUMED TO HAVE INDIVIDUAL SEEPAGE PITS. EXACT LOCATION AND CONDITION ARE CURRENTLY UNKNOWN.

TEST PIT OBSERVATION PERFORMED BY ROGER CASE OF THE LA GROUP IN JULY, 2014. FOR FULL TEST PIT LOGS, REFER TO THE ENGINEERING REPORT. DATA FOR TEST PIT #5 IS PRESENTED BELOW:

TEST PIT #5

0 TO 8 INCHES: DARK GRAYISH BROWN SANDY FILL
 TOP SOIL
 8 TO 43 INCHES: GRAYISH BROWN VERY GRAVELLY LOAMY SANDY FILL MATERIAL WITH SOME SMALL BOULDERS.
 43 TO 60 INCHES: VERY DARK GRAYISH BROWN MUCKY FINE SANDY LOAM BURIED SURFACE LAYER WITH STRONG SEEPS.

North Woods Engineering P.L.C.
 348 Lake Street
 Saranac Lake, NY 12983
 (518) 891-4875
 www.north-woods-engineering.com



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LS MARINA, LLC
SARANAC LAKE MARINA

PROJECT NAME
 4901 NYS ROUTE 3
 SARANAC LAKE, NEW YORK

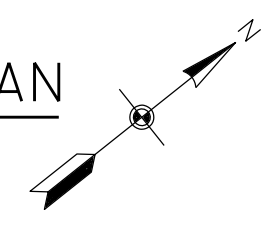
DATE	ISSUED FOR	REV
05-01-20	APA PERMITTING	
07-16-20	OWNER CHANGES	A
03-30-23	OWNER CHANGES	B

DRAWN BY: BMD/KMR
CHECKED BY: JA GARSO
PROJECT #: 19-061
ORIGINAL: 24"x36"

TITLE
 MAIN MARINA
 UTILITY PLAN

SHEET
 C17

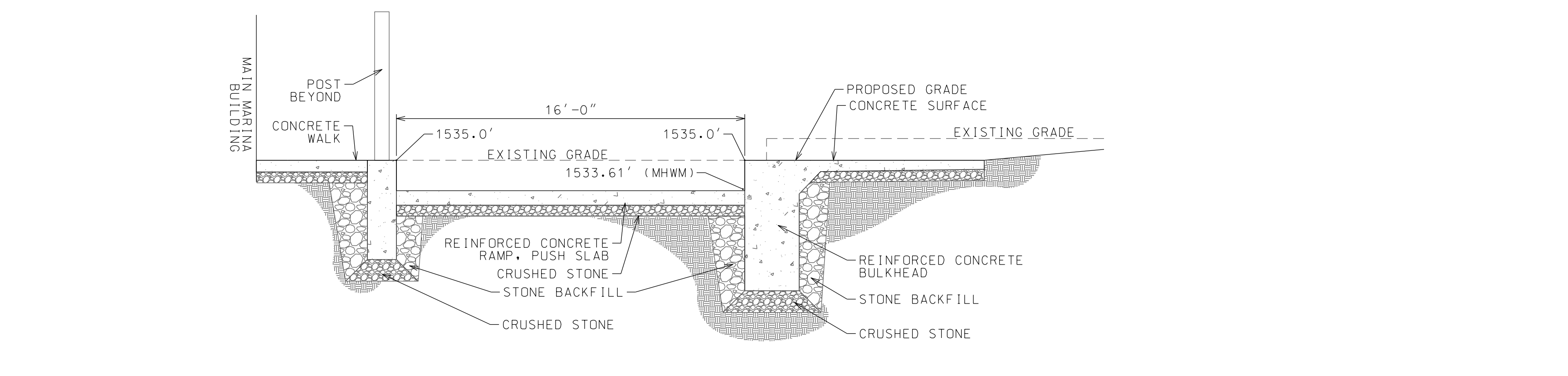
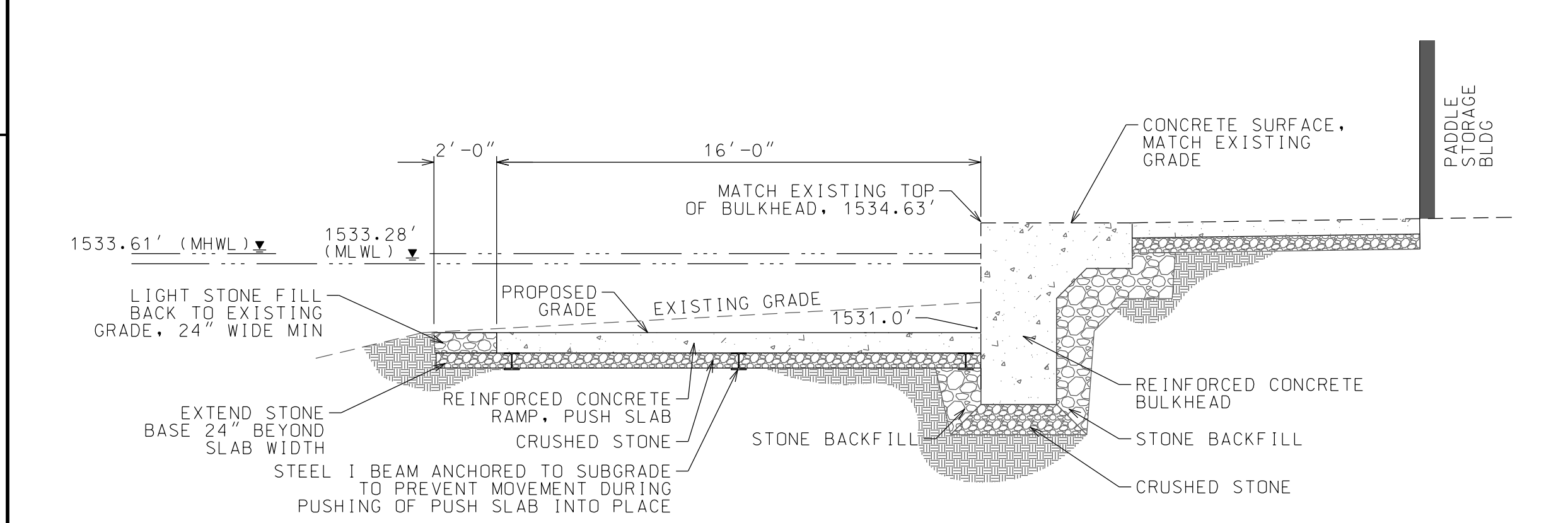
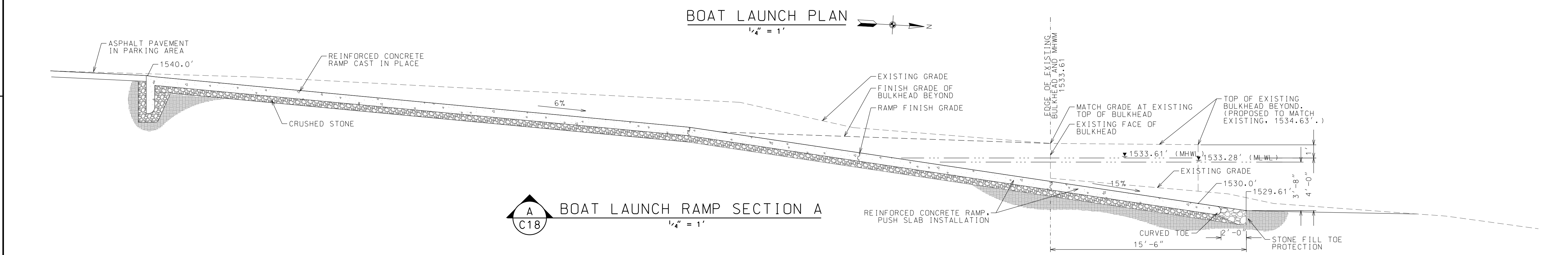
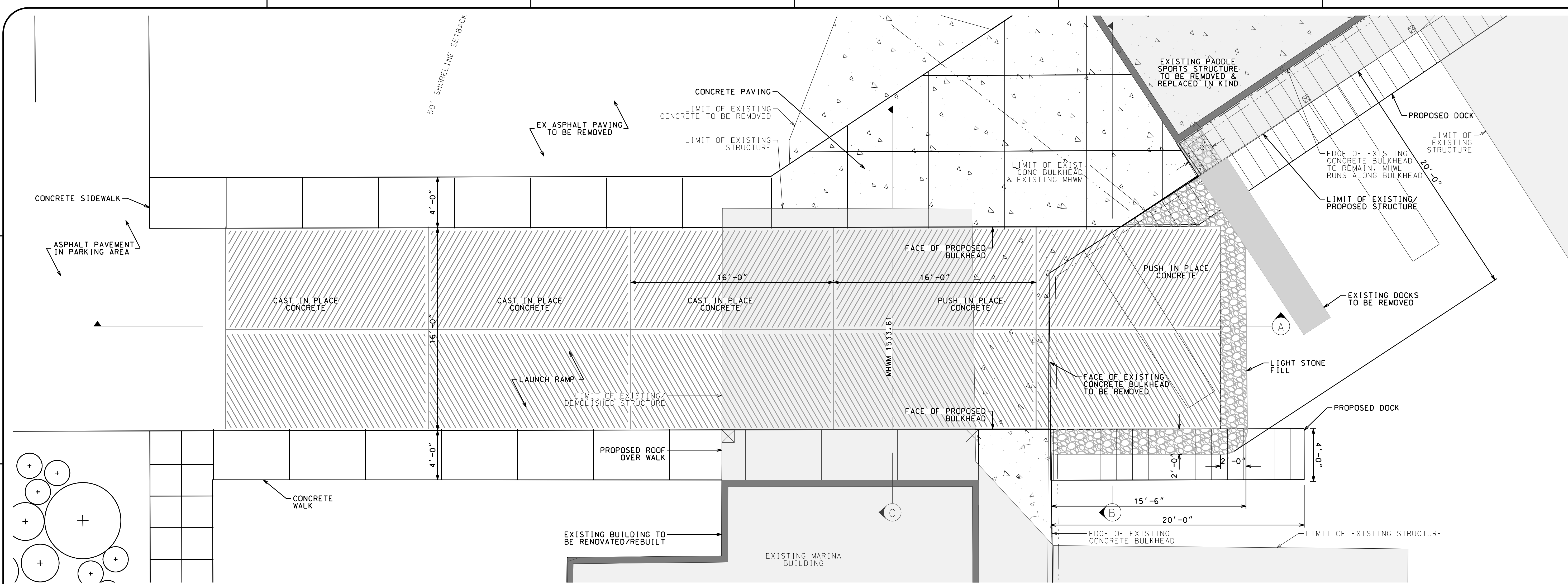
UTILITY PLAN
 1" = 30'





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L.S. MARINA, LLC
SARANAC LAKE MARINA

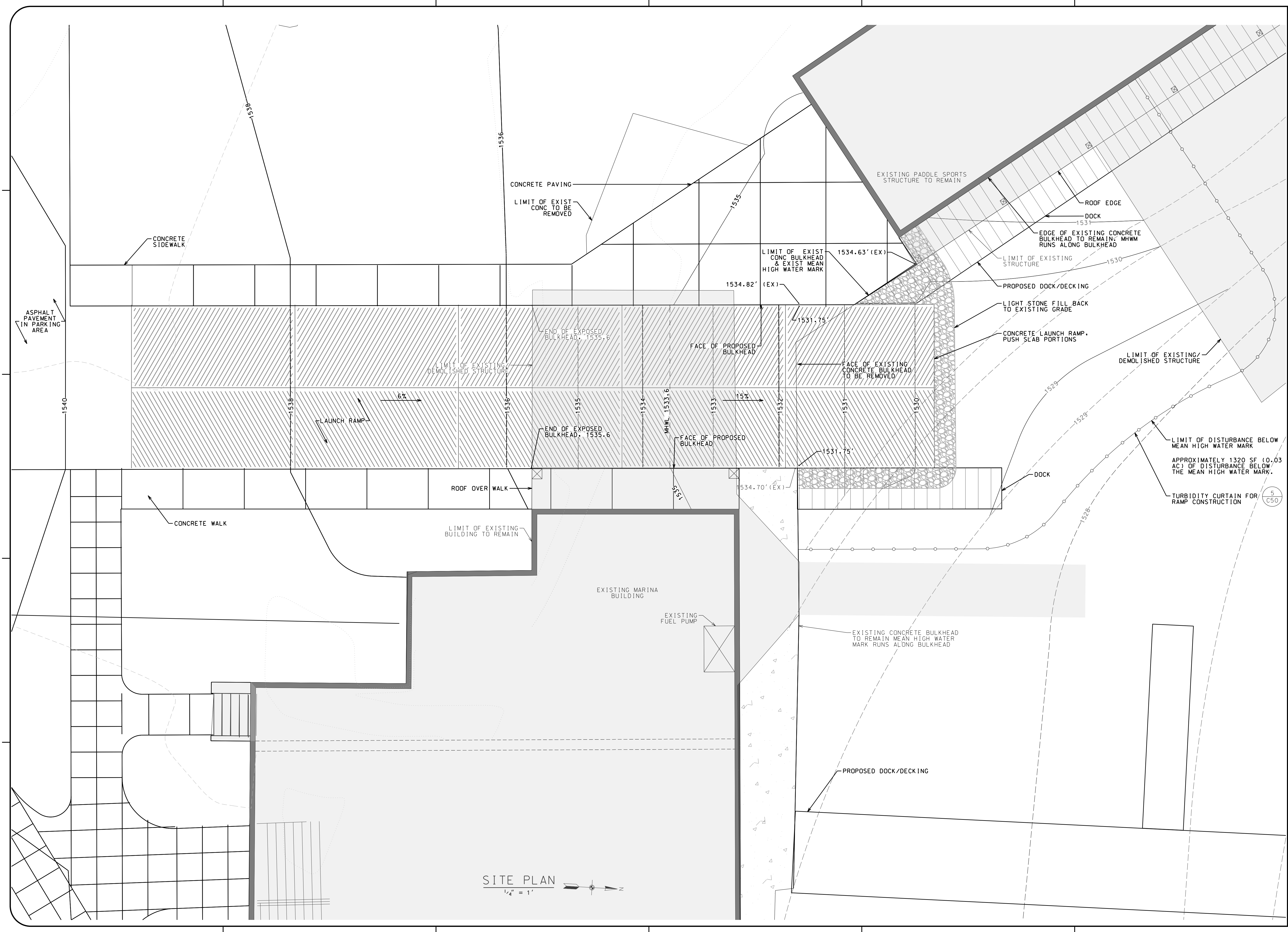


PROJECT NAME		
4901 NYS ROUTE 3 SARANAC LAKE, NEW YORK		
DATE	ISSUED FOR	REV
05-01-20	APA PERMITTING	
DRAWN BY: BMD/KMR		
CHECKED BY: JA GARSO		
PROJECT #: 19-061		
ORIGINAL 24"x36"		
TITLE		
MAIN MARINA BOAT LAUNCH PLAN		
SHEET		
C18		



WARNING: IT IS A VIOLATION OF NEW YORK STATE LAW FOR ANY PERSON, UNLESS ACTING UNDER THE SUPERVISION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER AN ITEM IN ANY MANNER. IF ALTERED, THE ALTERING ENGINEER SHALL AFFIX TO THE DOCUMENT THEIR SEAL AND THE NOTATION "ALTERED BY FOLLOWED BY THEIR SIGNATURE AND THE DATE OF ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION."

LS MARINA, LLC
SARANAC LAKE MARINA



SITE PLAN
1/4" = 1'



PROJECT NAME

LOCATION
4901 NYS ROUTE 3
SARANAC LAKE, NEW YORK

DATE	ISSUED FOR	REV
05-01-20	APA PERMITTING	

DRAWN BY: BMD/KMR
CHECKED BY: JA GARSO
PROJECT #: 19-061
ORIGINAL 24"x36"

TITLE
**MAIN MARINA
GRADING PLAN
BOAT LAUNCH**

SHEET



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L.S. MARINA, LLC
SARANAC LAKE MARINA

PROJECT NAME
LOCATION
4901 NYS ROUTE 3
SARANAC LAKE, NEW YORK

DATE	ISSUED FOR	REV
05-01-20	APA PERMITTING	
07-16-20	OWNER CHANGES	A
09-21-20	LITTORAL RIGHTS	B
03-30-23	OWNER CHANGES	C

DRAWN BY: BMD/KMR
CHECKED BY: JA GARSO
PROJECT #: 19-061
ORIGINAL 24"x36"

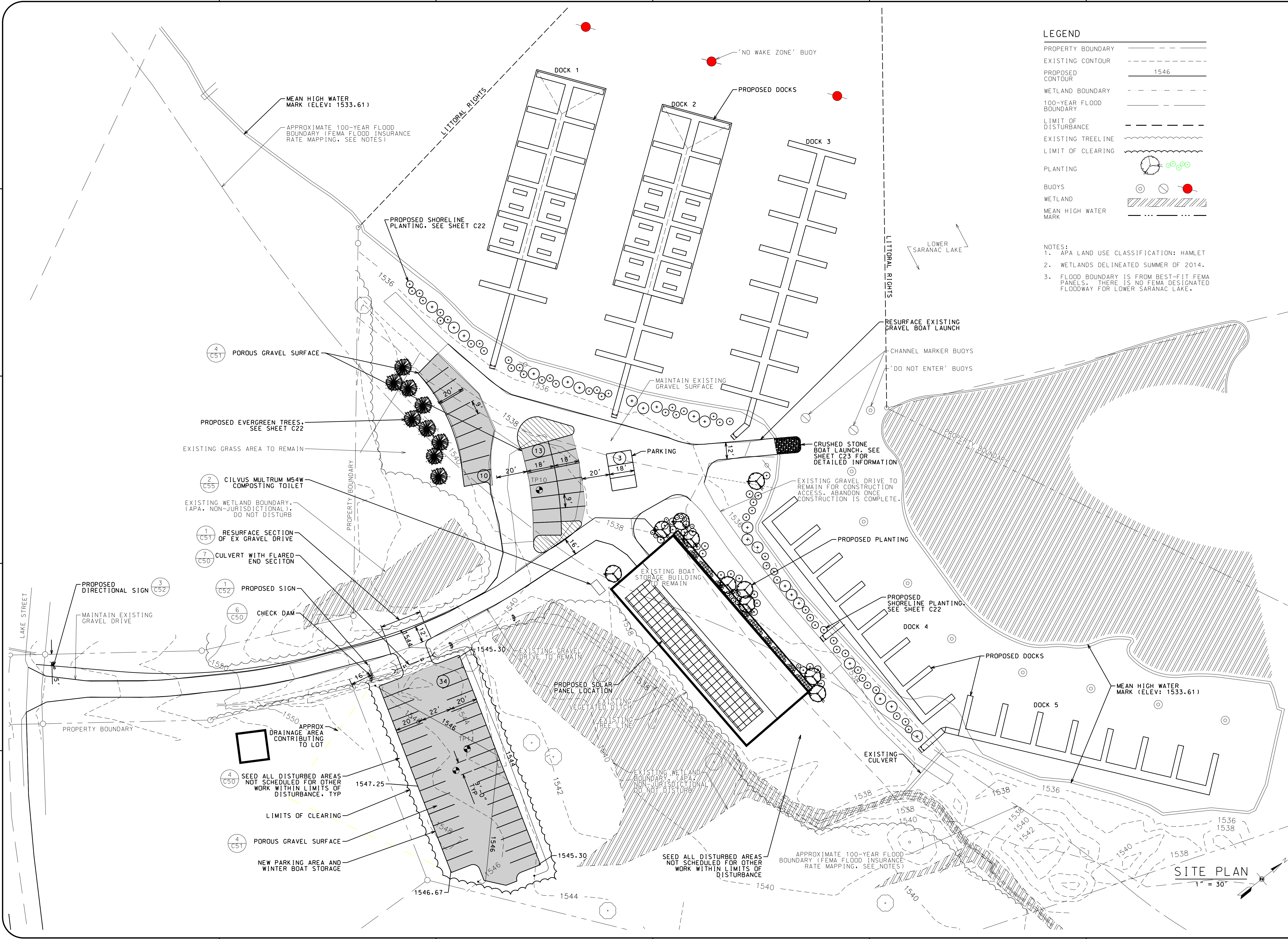
TITLE
ANNEX MARINA
OVERALL SITE
PLAN

SHEET
C20

LEGEND

PROPERTY BOUNDARY	---
EXISTING CONTOUR	-----
PROPOSED CONTOUR	1546
WETLAND BOUNDARY
100-YEAR FLOOD BOUNDARY	-----
LIMIT OF DISTURBANCE	-----
EXISTING TREELINE	~~~~~
LIMIT OF CLEARING	~~~~~
PLANTING	⊙ ⊙ ⊙ ⊙
BUOYS	⊙ ⊙ ⊙
WETLAND	▨ ▨ ▨ ▨
MEAN HIGH WATER MARK	-----

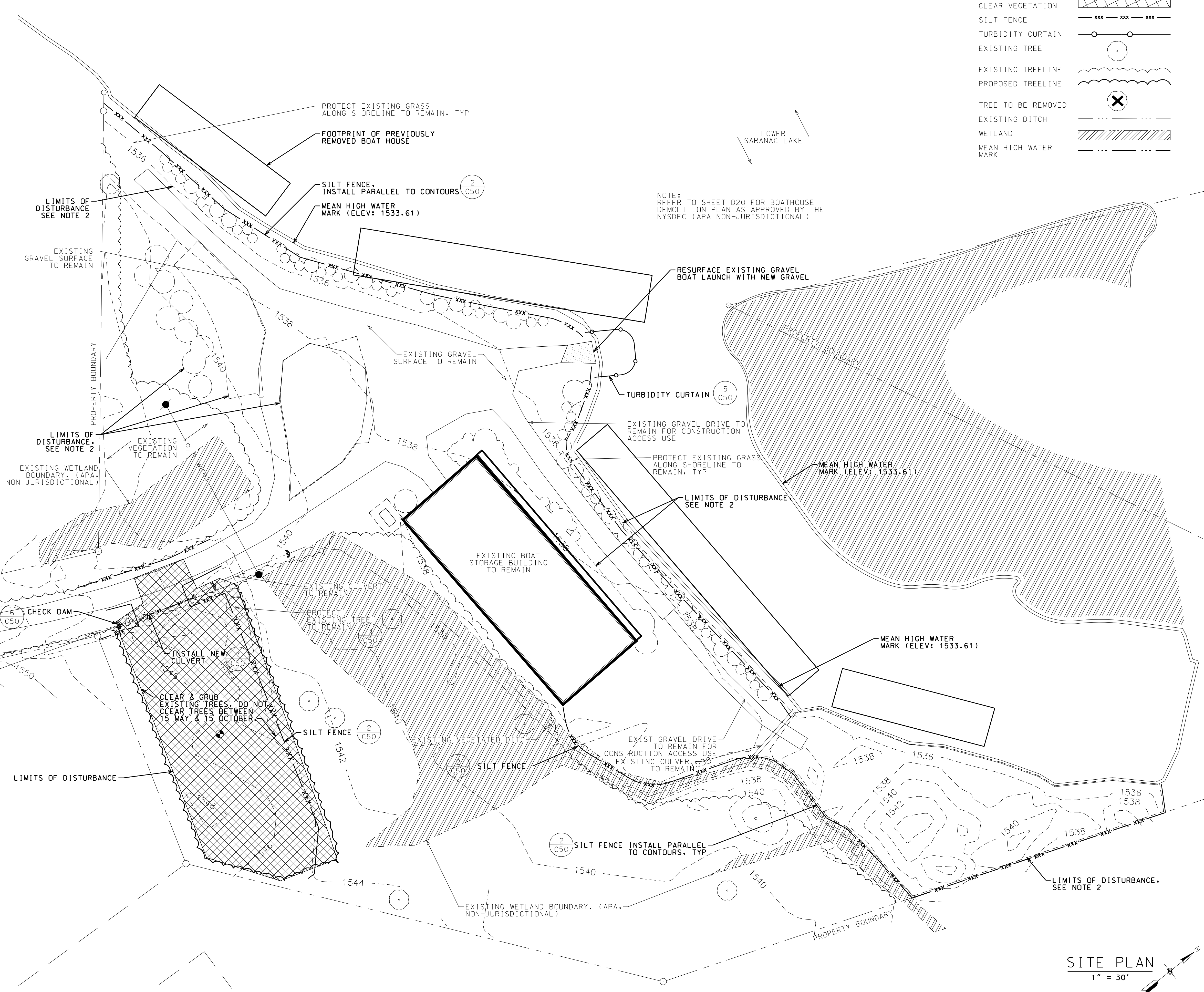
- NOTES:**
1. APA LAND USE CLASSIFICATION: HAMLET
 2. WETLANDS DELINEATED SUMMER OF 2014.
 3. FLOOD BOUNDARY IS FROM BEST-FIT FEMA PANELS. THERE IS NO FEMA DESIGNATED FLOODWAY FOR LOWER SARANAC LAKE.



SITE PLAN
1" = 30'

SITE PREPARATION AND EROSION CONTROL NOTES

- PRIOR TO CONSTRUCTION, CONTRACTOR SHALL ARRANGE PRE-CONSTRUCTION MEETING WITH OWNER/OWNER'S REPRESENTATIVE TO REVIEW ALL APPLICABLE PERMIT CONDITIONS, THE CONSTRUCTION PLANS AND GENERAL CONSTRUCTION SCHEDULE.
- PROPOSED LIMITS OF DISTURBANCE ARE CLEARLY INDICATED ON THE PLANS AND SHALL BE STRICTLY ADHERED TO. IN NO CASE SHALL THE CONTRACTOR DISTURB MORE THAN 1 ACRE. EXCAVATION FOR ALL PLANT MATERIALS SHALL BE DONE BY HAND, AND LIMITED TO EXTENTS INDICATED ON PLANTING DETAILS. IN THE EVENT CONSTRUCTION ACTIVITIES RESULT IN MORE THAN 1 ACRE OF SOIL DISTURBANCE, THE CONTRACTOR MUST STOP WORK AND OBTAIN COVERAGE UNDER THE NYSDEC SPDES GENERAL PERMIT FOR STORMWATER DISCHARGES.
- ALL TEMPORARY EROSION CONTROL MEASURES SHALL BE IN PLACE PRIOR TO ANY EARTH DISTURBING ACTIVITIES. EROSION CONTROL DEVICES SHALL BE REGULARLY INSPECTED AND MAINTAINED TO INSURE SATISFACTORY PERFORMANCE. ANY EROSION DAMAGE OCCURRING DURING THE COURSE OF CONSTRUCTION SHALL BE REPAIRED BY THE CONTRACTOR AT NO EXPENSE TO THE OWNER. ASSOCIATED FINES RESULTING FROM SUCH DAMAGE SHALL ALSO BE PAID BY THE CONTRACTOR.
- APPLICABLE EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE MAINTAINED IN PLACE UNTIL CONSTRUCTION IS COMPLETED AND/OR THE AREA IS STABILIZED AND APPROVED BY THE OWNER'S REPRESENTATIVE.
- THE CONTRACTOR SHALL PERFORM ALL WORK, FURNISH ALL MATERIALS AND INSTALL ALL MEASURES REQUIRED TO REASONABLY CONTROL SOIL EROSION RESULTING FROM CONSTRUCTION OPERATIONS AND PREVENT EXCESSIVE FLOW OF SEDIMENT FROM THE CONSTRUCTION SITE.
- MULCHING IS REQUIRED ON ALL SEEDED AREAS TO PREVENT EROSION BEFORE GRASS IS ESTABLISHED TO PROMOTE EARLIER VEGETATION COVER.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING TREES AND PLANTS DESIGNATED TO REMAIN FOR THE LENGTH OF THE CONSTRUCTION PERIOD. THE PLACEMENT OF PROTECTION DEVICES ADDITIONAL TO THOSE NOTED SHALL, HOWEVER, BE AT THE CONTRACTOR'S DISCRETION. VEHICLES SHALL NOT BE PARKED WITHIN THE DRIP LINE OR WHERE DAMAGE MAY RESULT TO TREES TO BE SAVED. CONSTRUCTION MATERIALS SHALL NOT BE STORED BENEATH TREES TO BE SAVED.
- TREE AND SHRUB REMOVAL SHALL INCLUDE THE FILLING, CUTTING, GRUBBING OUT OF ENTIRE ROOT SYSTEM AND SATISFACTORY OFF-SITE DISPOSAL OF ALL TREES, SHRUBS, STUMPS, VEGETATIVE AND EXTRANEOUS DEBRIS PRODUCED THROUGH THE REMOVAL OPERATIONS.
- ALL ITEMS REQUIRING REMOVAL SHALL BE REMOVED TO FULL DEPTH INCLUDING BASE MATERIAL AND FOOTINGS OR FOUNDATIONS AS APPLICABLE, AND REUSED AS DIRECTED BY THE OWNER OR LEGALLY DISPOSED OF OFF-SITE BY CONTRACTOR.
- ALL REFUSE, DEBRIS AND MISCELLANEOUS ITEMS TO BE REMOVED, THAT ARE NOT TO BE STOCKPILED FOR LATER USE ON THE PROJECT OR DELIVERED TO THE OWNER, SHALL BE LEGALLY DISPOSED OF OFF-SITE BY THE CONTRACTOR.
- THE GENERAL CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE TO EXISTING CONDITIONS THAT ARE DUE TO CONTRACTOR OPERATIONS AND WHICH ARE OUTSIDE THE LIMIT OF DISTURBANCE.
- THE GENERAL CONTRACTOR SHALL COORDINATE ALL ADJUSTMENT OR ABANDONMENT OF UTILITIES WITH THE RESPECTIVE UTILITY COMPANY AND PAY ALL ASSOCIATED COSTS.
- ALL POINTS OF CONSTRUCTION INGRESS AND EGRESS SHALL BE PROTECTED TO PREVENT TRACKING OF MUD ONTO PUBLIC WAYS. ANY MUD ON PUBLIC WAYS ORIGINATING FROM THE JOB SITE SHALL BE CLEANED BY THE CONTRACTOR DAILY.
- ALL DISTURBED AREAS SHALL BE STABILIZED AS SOON AS POSSIBLE WITH SEED AND STRAW MULCH. SEED MIX SHALL BE IN ACCORDANCE WITH PROJECT CONSTRUCTION DETAILS FOR SOIL STABILIZATION, AND STRAW MULCH SHALL BE FREE OF INVASIVE SPECIES AND APPLIED AT A RATE OF 2-3 BALES PER 1,000 SQUARE FEET.



NOTE: REFER TO SHEET D20 FOR BOATHOUSE DEMOLITION PLAN AS APPROVED BY THE NYSDEC (APA NON-JURISDICTIONAL)

LEGEND

PROPERTY BOUNDARY	---
LIMIT OF DISTURBANCE	- - - - -
CLEAR VEGETATION	XXXXXX
SILT FENCE	XXX XXX XXX
TURBIDITY CURTAIN	○ ○ ○
EXISTING TREE	○
EXISTING TREELINE	~~~~~
PROPOSED TREELINE	~~~~~
TREE TO BE REMOVED	⊗
EXISTING DITCH	---
WETLAND	
MEAN HIGH WATER MARK	---

North Woods Engineering P.L.L.C.
 348 Lake Street
 Saranac Lake, NY 12983
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 www.north-woods-engineering.com



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PROJECT NAME
**LS MARINA, LLC
 SARANAC LAKE MARINA**

LOCATION
**4901 NYS ROUTE 3
 SARANAC LAKE, NEW YORK**

DATE	ISSUED FOR	REV
05-01-20	APA PERMITTING	
06-05-20	APA SUPPLEMENT	A
07-16-20	OWNER CHANGES	B
03-30-23	OWNER CHANGES	C
03-30-23	APA SUPPLEMENT	D

DRAWN BY: BMD/KMR
 CHECKED BY: JA GARSO
 PROJECT #: 19-061
 ORIGINAL 24"x36"

TITLE
**ANNEX MARINA
 SITE PREP,
 EROSION &
 SEDIMENT
 CONTROL PLAN**

SHEET
C21

SITE PLAN
 1" = 30'



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PROJECT NAME
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 SARANAC LAKE MARINA**

LOCATION
**4901 NYS ROUTE 3
 SARANAC LAKE, NEW YORK**

DATE	ISSUED FOR	REV
05-01-20	APA PERMITTING	
07-16-20	OWNER CHANGES	A
03-30-23	OWNER CHANGES	B

DRAWN BY: BMD/KMR
 CHECKED BY: JA GARSO
 PROJECT #: 19-061
 ORIGINAL 24"x36"

TITLE
**ANNEX MARINA
 PLANTING PLAN**

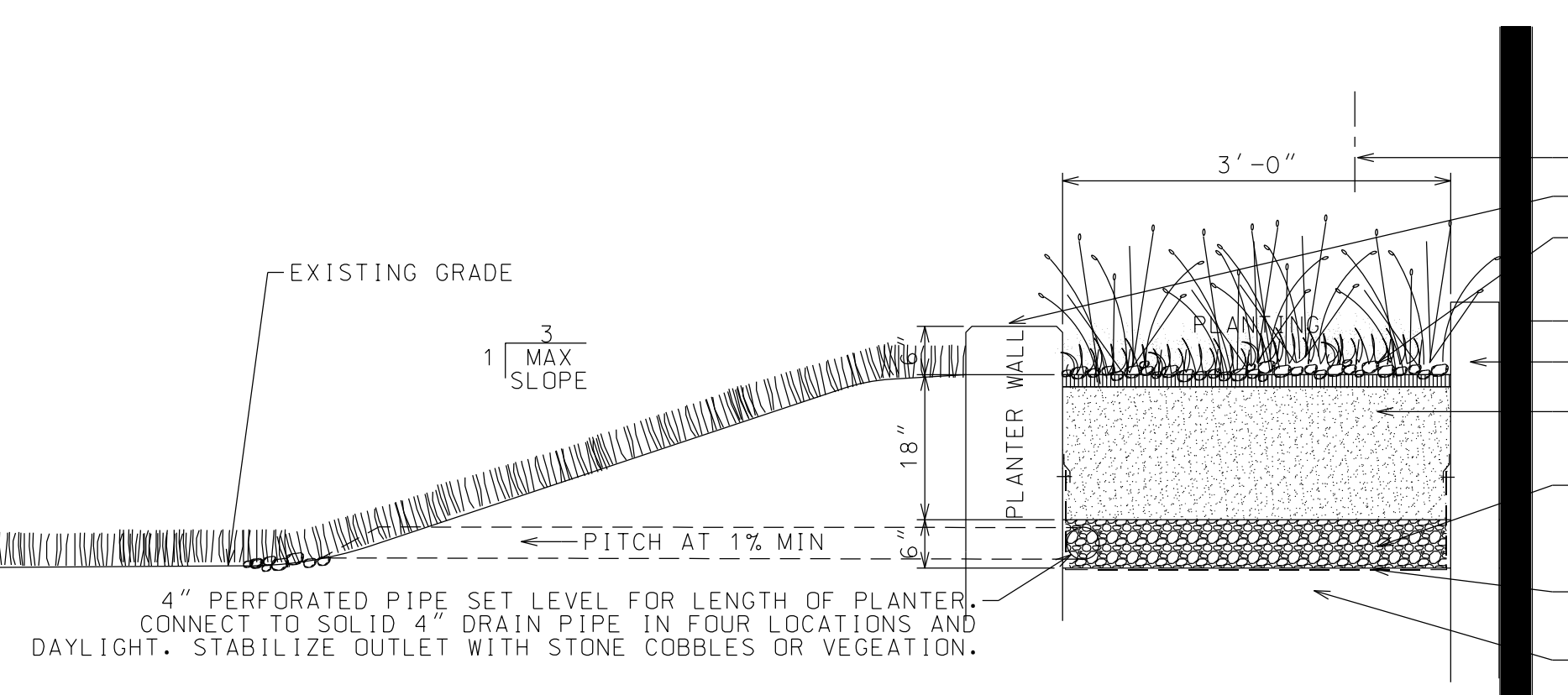
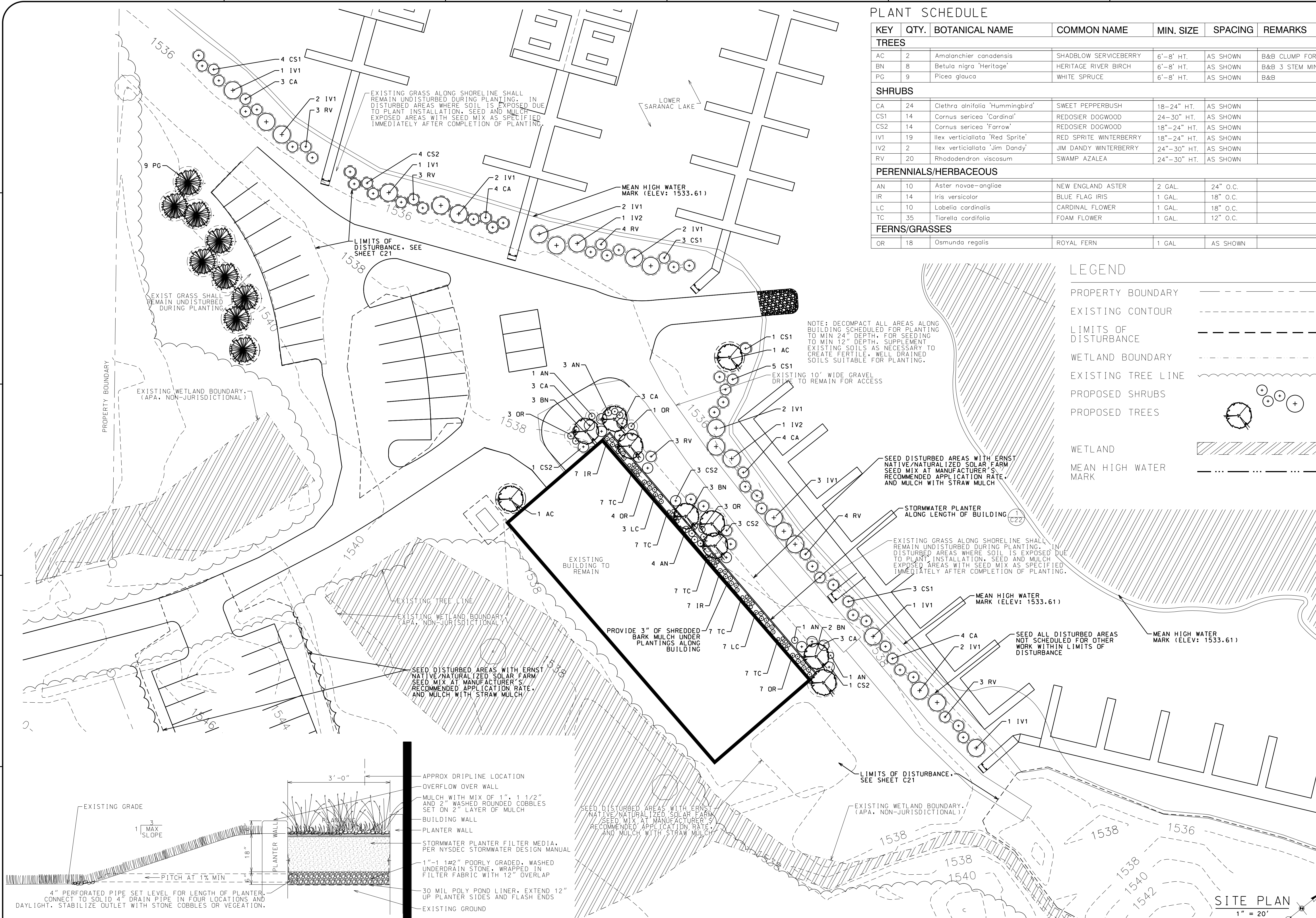
SHEET
C22

PLANT SCHEDULE

KEY	QTY.	BOTANICAL NAME	COMMON NAME	MIN. SIZE	SPACING	REMARKS
TREES						
AC	2	Amelanchier canadensis	SHADBLOW SERVICEBERRY	6'-8' HT.	AS SHOWN	B&B CLUMP FORM
BN	8	Betula nigra 'Heritage'	HERITAGE RIVER BIRCH	6'-8' HT.	AS SHOWN	B&B 3 STEM MIN.
PG	9	Picea glauca	WHITE SPRUCE	6'-8' HT.	AS SHOWN	B&B
SHRUBS						
CA	24	Clethra alnifolia 'Hummingbird'	SWEET PEPPERBUSH	18"-24" HT.	AS SHOWN	
CS1	14	Cornus sericea 'Cardinal'	REDSIER DOGWOOD	24"-30" HT.	AS SHOWN	
CS2	14	Cornus sericea 'Farrow'	REDSIER DOGWOOD	18"-24" HT.	AS SHOWN	
IV1	19	Ilex verticillata 'Red Sprite'	RED SPRITE WINTERBERRY	18"-24" HT.	AS SHOWN	
IV2	2	Ilex verticillata 'Jim Dandy'	JIM DANDY WINTERBERRY	24"-30" HT.	AS SHOWN	
RV	20	Rhododendron viscosum	SWAMP AZALEA	24"-30" HT.	AS SHOWN	
PERENNIALS/HERBACEOUS						
AN	10	Aster novae-angliae	NEW ENGLAND ASTER	2 GAL.	24" O.C.	
IR	14	Iris versicolor	BLUE FLAG IRIS	1 GAL.	18" O.C.	
LC	10	Lobelia cardinalis	CARDINAL FLOWER	1 GAL.	18" O.C.	
TC	35	Tiarella cordifolia	FOAM FLOWER	1 GAL.	12" O.C.	
FERNS/GRASSES						
OR	18	Osmunda regalis	ROYAL FERN	1 GAL.	AS SHOWN	

LEGEND

- PROPERTY BOUNDARY
- EXISTING CONTOUR
- LIMITS OF DISTURBANCE
- WETLAND BOUNDARY
- EXISTING TREE LINE
- PROPOSED SHRUBS
- PROPOSED TREES
- WETLAND
- MEAN HIGH WATER MARK



1 STORMWATER PLANTER

SCALE: NTS

SITE PLAN
 1" = 20'



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L.S. MARINA, LLC
SARANAC LAKE MARINA

PROJECT NAME

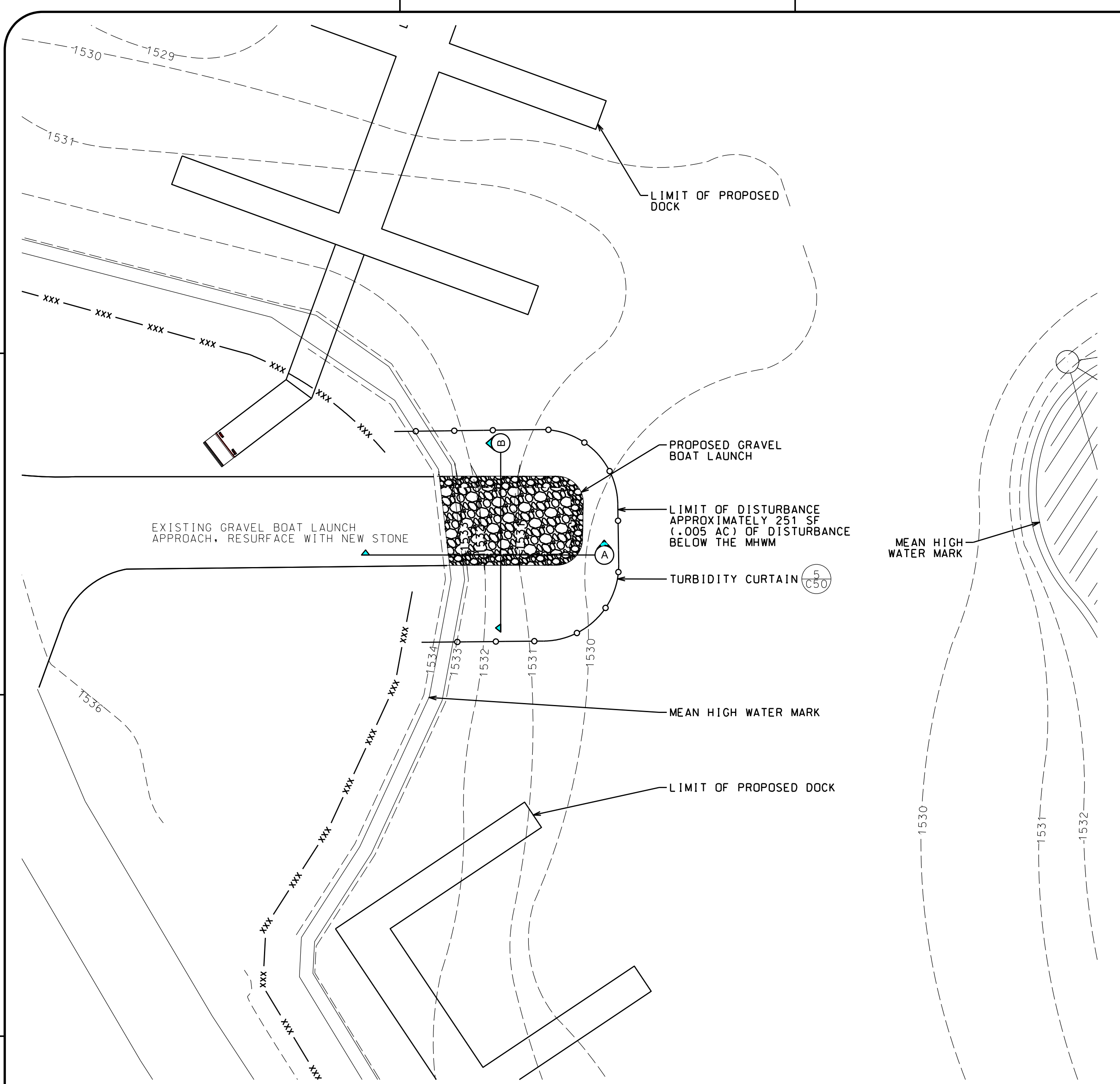
LOCATION
4901 NYS ROUTE 3
SARANAC LAKE, NEW YORK

DATE	ISSUED FOR	REV
05-01-20	APA PERMITTING	
07-16-20	OWNER CHANGES	A
03-30-23	OWNER CHANGES	B

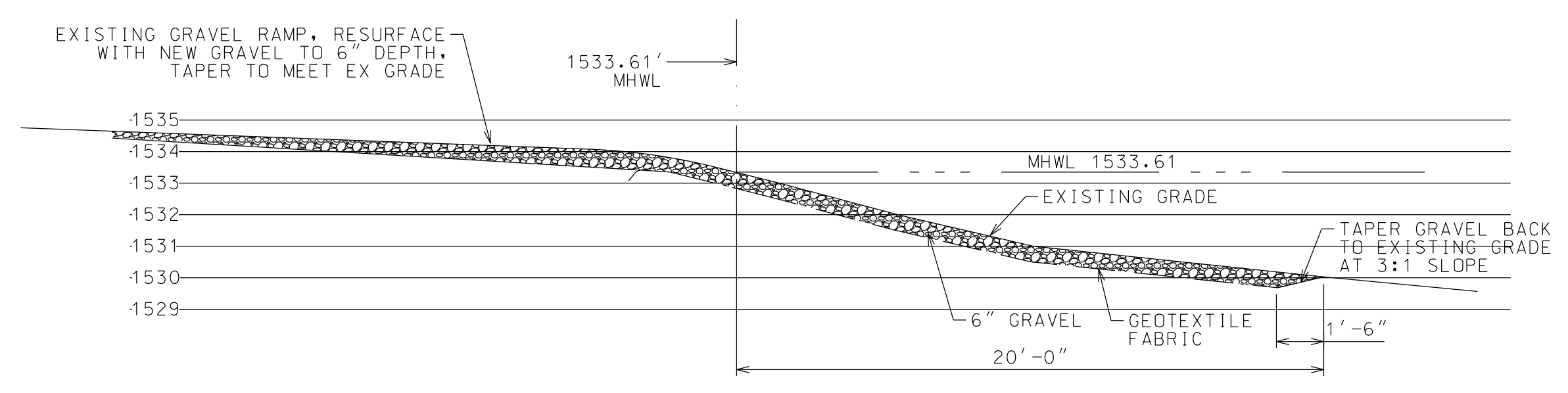
DRAWN BY: BMD/KMR
CHECKED BY: JA GARSO
PROJECT #: 19-061
ORIGINAL 24"x36"

TITLE
**ANNEX MARINA
BOAT LAUNCH
PLAN AND
SECTIONS**

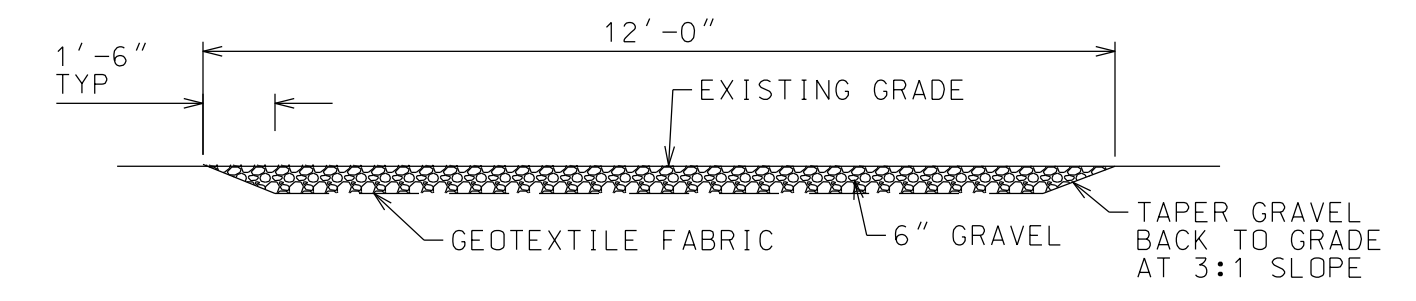
SHEET
C23



BOAT LAUNCH PLAN
1" = 10'



A
C23
BOAT LAUNCH RAMP SECTION A
1/4" = 1'



B
C23
BOAT LAUNCH RAMP SECTION B
1/4" = 1'

LEGEND

- PROPERTY BOUNDARY ————
- LIMIT OF DISTURBANCE - - - - -
- SILT FENCE ————
- TURBIDITY CURTAIN ————
- EX. MEAN HIGH WATER LINE ————
- PROPOSED MHWL ————
- COIR LOG ————
- WETLAND BOUNDARY ————
- DEEP WATER PLANTING [diagonal hatching]
- EMERGENT PLANTING [cross-hatching]
- BANK PLANTING AND EC BLANKET [diagonal hatching]



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LS MARINA, LLC
SARANAC LAKE MARINA



LEGEND

EXISTING STRUCTURE TO BE REMOVED, OUTSIDE 50' SHORELINE SETBACK	
EXISTING STRUCTURE TO REMAIN, OUTSIDE 50' SHORELINE SETBACK	
EXISTING STRUCTURE WITHIN 50' SETBACK TO REMAIN OR BE REPLACED ON EXISTING FOOTPRINT	
EXISTING STRUCTURE WITHIN 50' SETBACK TO BE REMOVED	
PROPOSED STRUCTURE WITHIN 50' SETBACK	
OVERLAP OF EXISTING STRUCTURE TO BE REMOVED AND PROPOSED STRUCTURE WITHIN 50' SHORELINE SETBACK	
EXISTING UNCOVERED DOCKS TO BE REMOVED	

SITE PLAN
1" = 30'
MEAN HIGH WATER MARK
(ELEV: 1533.61)

PROJECT NAME

LOCATION
4901 NYS ROUTE 3
SARANAC LAKE, NEW YORK

DATE	ISSUED FOR	REV
05-01-20	APA PERMITTING	
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03-30-23	OWNER CHANGES	B

DRAWN BY: BMD/KMR
CHECKED BY: JA GARSO
PROJECT #: 19-061
ORIGINAL 24"x36"

TITLE
**MAIN MARINA
OVERLAY PLAN**

SHEET
C30

KEY FOR EXISTING ELEMENTS WITHIN 50' SETBACK TO REMAIN OR BE REPLACED ON EXISTING FOOTPRINT

TAG	EXIST ELEMENT	EXIST GRADE (FT)	HEIGHT (FT)	FOOTPRINT INSIDE 50' SETBACK (SF)	NOTES
R1	SHED	1540.7	12	180	ALREADY DEMO'D. TO BE REPLACED ON FOOTPRINT. TO SAME HEIGHT
R2	SHED	1540.8	12	172	ALREADY DEMO'D. TO BE REPLACED ON FOOTPRINT. TO SAME HEIGHT
R3	PADDLE SPORTS BLDG	1534.5	16	1,704	ALREADY DEMO'D. TO BE REPLACED ON FOOTPRINT. TO SAME HEIGHT
R4	MARINA BLDG	1534.7	28	4,924	RENOVATED
R5	STAIRS	1534.2	-	58	REPLACED ON EXIST FOOTPRINT
R6	CONCRETE SLAB	1535.0	-	90	TO REMAIN
R7	CONCRETE SLAB	1534.6	-	244	TO REMAIN
	SUBTOTAL MAIN MARINA			7,372	
R20	ANNEX BUILDING	1537.8		848	TO REMAIN
	SUBTOTAL ANNEX			848	
	GRAND TOTAL			8,220	

NOTES:

- HEIGHTS OF EXISTING FEATURES PROVIDED BY GEOMATICS LAND SURVEYING.
- HEIGHTS OF PROPOSED BUILDING ELEMENTS PROVIDED BY OWNER.
- REFER TO MARINA SITE VARIANCE PLAN FOR LOCATIONS OF AREAS WITHIN THE SHORELINE SETBACK THAT REQUIRE AN APA VARIANCE.
- ELEMENTS AT MAIN MARINA START WITH NUMBERING AT ONE. ELEMENTS AT ANNEX START NUMBERING AT TWENTY.
- ELEMENTS E1A, E1B, E13, E14, E15 AND E16 RE-CREATED FROM HISTORIC DOCUMENTS AND TESTIMONY.
- WHERE STRUCTURES WITHIN 50' SETBACK TO BE REPLACED ON EXISTING FOOTPRINT, REPLACEMENT STRUCTURES WILL NOT BE HIGHER THAN FORMER STRUCTURE.

KEY FOR EXISTING ELEMENTS WITHIN 50' SETBACK TO BE REMOVED

TAG	EXIST ELEMENT	EXIST GRADE (FT)	HEIGHT (FT)	FOOTPRINT INSIDE 50' SETBACK (SF)	NOTES
E1	BOATHOUSE	1533.7	24' +/-	6,344	ALREADY DEMO'D. 1,463 SF ON SECOND FLOOR. LABELED AS E1A AND E1B
E2	DOCK	1533.7	-	-	ALREADY DEMO'D. 38 SF
E3	DOCK	1533.7	-	-	ALREADY DEMO'D. 38 SF
E4	DOCK	1533.7	-	-	ALREADY DEMO'D. 38 SF
E5	DOCK	1529.9	-	-	ALREADY DEMO'D. 245 SF
E5A	ROOF OVER FORMER FUELING STATION	1529.9	10' +/-	245	ALREADY DEMO'D. COVERED DOCK E5
E6	DOCK	1529.9	-	-	ALREADY DEMO'D. 615 SF
E7	DOCK	1530.1	-	-	ALREADY DEMO'D. 551 SF
E8	DOCK	1530.1	-	-	ALREADY DEMO'D. 898 SF
E9	DOCK	1531.0	-	-	ALREADY DEMO'D. 137 SF
E10	BOATHOUSE	1531.6	12' +/-	2,310	ALREADY DEMO'D
E11	SPLIT RAIL FENCE	1531.8	3' +/-	-	ALREADY DEMO'D. 100 LF
E12	CONCRETE SLAB	1531.6	-	465	
E13	BOATHOUSE	1533.7	14' +/-	1400	ALREADY DEMO'D
E14	BOATHOUSE	1533.7	14' +/-	800	ALREADY DEMO'D
E15	BOATHOUSE	1533.7	14' +/-	1,248	ALREADY DEMO'D
	SUBTOTAL MAIN MARINA			12,812	
E20	ANNEX BOATHOUSE 1	1533.6	12' +/-	2,500	ALREADY DEMO'D
E21	ANNEX BOATHOUSE 2	1534.3	12' +/-	5,220	ALREADY DEMO'D
E22	ANNEX BOATHOUSE 3	1535.2	12' +/-	4,824	ALREADY DEMO'D
E23	ANNEX BOATHOUSE 4	1535.2	12' +/-	2,327	ALREADY DEMO'D
	SUBTOTAL ANNEX			14,871	
	GRAND TOTAL			27,683	

KEY FOR PROPOSED ELEMENTS WITHIN 50' SETBACK

TAG	PROPOSED ELEMENT	EXIST GRADE (FT)	PROPOSED GRADE (FT)	HEIGHT (FT)	FOOTPRINT INSIDE 50' SETBACK (SF)	VARIANCE REQ'D?*	VARIANCE AREA (SF)	NOTES
P1	COVERED DOCK 1	1529.6	1529.6	14	12,064	PART	3,275	PROVIDES ECONOMIC VIABILITY. 3,266 SQ FT OVERLAP (FROM P1A, P1B, E13 & E14) PLUS REMAINDER OF AREA FROM ITEMS E1, E13, E14 & E5A
P2	COVERED DOCK 2	1533.7	1533.6	14	14,896	PART	14,065	PROVIDES ECONOMIC VIABILITY. 831 SQ FT FROM E23
P3	COVERED DOCK 3	-	-	14	17,172	PART	13,614	PROVIDES ECONOMIC VIABILITY. 876 SQ FT OVERLAP PLUS REMAINDER OF AREA FROM ITEM E10 AND ITEM E15
P4	COVERED DOCK 4	1530.0	1534.2	14	4,368	YES	4,368	PROVIDES ECONOMIC VIABILITY
P5	BOAT LAUNCH	1529.9	1529.8	-	1,042	PART	577	465 SQ FT OVERLAP (ITEM P5A), REMOVAL OF ITEM E12
	SUBTOTAL MAIN MARINA				49,542		35,899	
P20	ANNEX DOCK 1	-	-	-	7,020	NO	-	ALL OF AREA FROM E20, 4520 SQ FT OF E21
P21	ANNEX DOCK 2	-	-	-	7,020	NO	-	ALL OF AREA FROM E22, REMAINING 700 SQ FT OF E21, 1496 SQ FT OF E23
P22	ANNEX DOCK 3	-	-	-	-	-	-	
P23	ANNEX DOCK 4	-	-	-	-	-	-	
P24	ANNEX DOCK 5	-	-	-	-	-	-	
	SUBTOTAL ANNEX				14,040		-	
	GRAND TOTAL				63,582		35,899	

* VARIANCE REQUIREMENTS BASED ON INFORMATION PROVIDED BY THE APA IN A VARIANCE MEETING ON 21 FEB 2020.



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L.S. MARINA, LLC
SARANAC LAKE MARINA

PROJECT NAME

LOCATION
4901 NYS ROUTE 3
SARANAC LAKE, NEW YORK

DATE	ISSUED FOR	REV
05-01-20	APA PERMITTING	
06-04-20	APA SUPPLEMENT	A
07-16-20	OWNER CHANGES	B
03-30-23	OWNER CHANGES	C
05-02-23	APA SUPPLEMENT	D

DRAWN BY: BMD/KMR
 CHECKED BY: JA GARSO
 PROJECT #: 19-061
 ORIGINAL 24"x36"

TITLE
MARINA OVERLAY TABLES

SHEET



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SARANAC LAKE MARINA

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03-30-23	OWNER CHANGES	B

DRAWN BY: BMD/KMR
CHECKED BY: JA GARSO
PROJECT #: 19-061
ORIGINAL 24"x36"

TITLE
**MAIN MARINA
VARIANCE PLAN**

SHEET
C33

KEY FOR VARIANCE AREAS

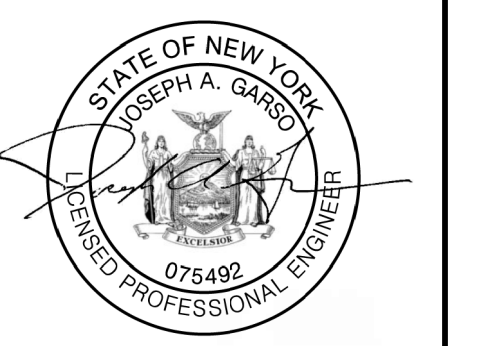
TAG	PROPOSED ELEMENT	VARIANCE AREA (SF)
P1	COVERED DOCK 1	3,275
P2	COVERED DOCK 2	14,065
P3	COVERED DOCK 3	13,614
P4	COVERED DOCK 4	4,368
P5	BOAT LAUNCH	577
	SUBTOTAL MAIN MARINA	35,899
P20	ANNEX DOCK 1 (VARIANCE NOT REQ'D)	-
P21	ANNEX DOCK 2 (VARIANCE NOT REQ'D)	-
P22	ANNEX DOCK 3 (REMOVED COVERING)	-
P23	ANNEX DOCK 4 (REMOVED COVERING)	-
P24	ANNEX DOCK 5 (REMOVED COVERING)	-
	SUBTOTAL ANNEX	-
	GRAND TOTAL	35,899



SITE PLAN
1" = 30'

MEAN HIGH WATER MARK
(ELEV: 1533.61)

50'-0" SHORELINE
SETBACK



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L.S. MARINA, LLC
SARANAC LAKE MARINA

PROJECT NAME

LOCATION
4901 NYS ROUTE 3
SARANAC LAKE, NEW YORK

DATE	ISSUED FOR	REV
05-01-20	APA PERMITTING	
06-09-20	APA SUPPLEMENT	A
07-16-20	OWNER CHANGES	B
08-11-20	APA SUPPLEMENT	C
08-27-20	APA SUPPLEMENT	D
09-17-21	APA SUPPLEMENT	E
03-30-23	OWNER CHANGES	F
05-02-23	APA SUPPLEMENT	G

DRAWN BY: BMD/KMR
 CHECKED BY: JA GARSO
 PROJECT #: 19-061
 ORIGINAL 24"x36"

TITLE
MAIN MARINA AQUATIC VEGETATION DIAGRAM

SHEET
C40

LEGEND

- PROPERTY LINE
- 10- 1' BATHYMETRIC LINE
- SUBMERGED AQUATIC VEGETATION (SAV)
- SAV WITH DOCKS ABOVE
- AREA LESS THAN 7' DEEP TO BE UNCOVERED
- INSHORE (LESS THAN 10' DEEP) ANCHOR PIPE LOCATIONS
- COVERED DOCKS
- EXISTING STRUCTURES TO BE RECONSTRUCTED/RENOVATED
- EXISTING BOATHOUSE/DOCK TO BE DEMOLISHED

SUBMERGED AQUATIC VEGETATION

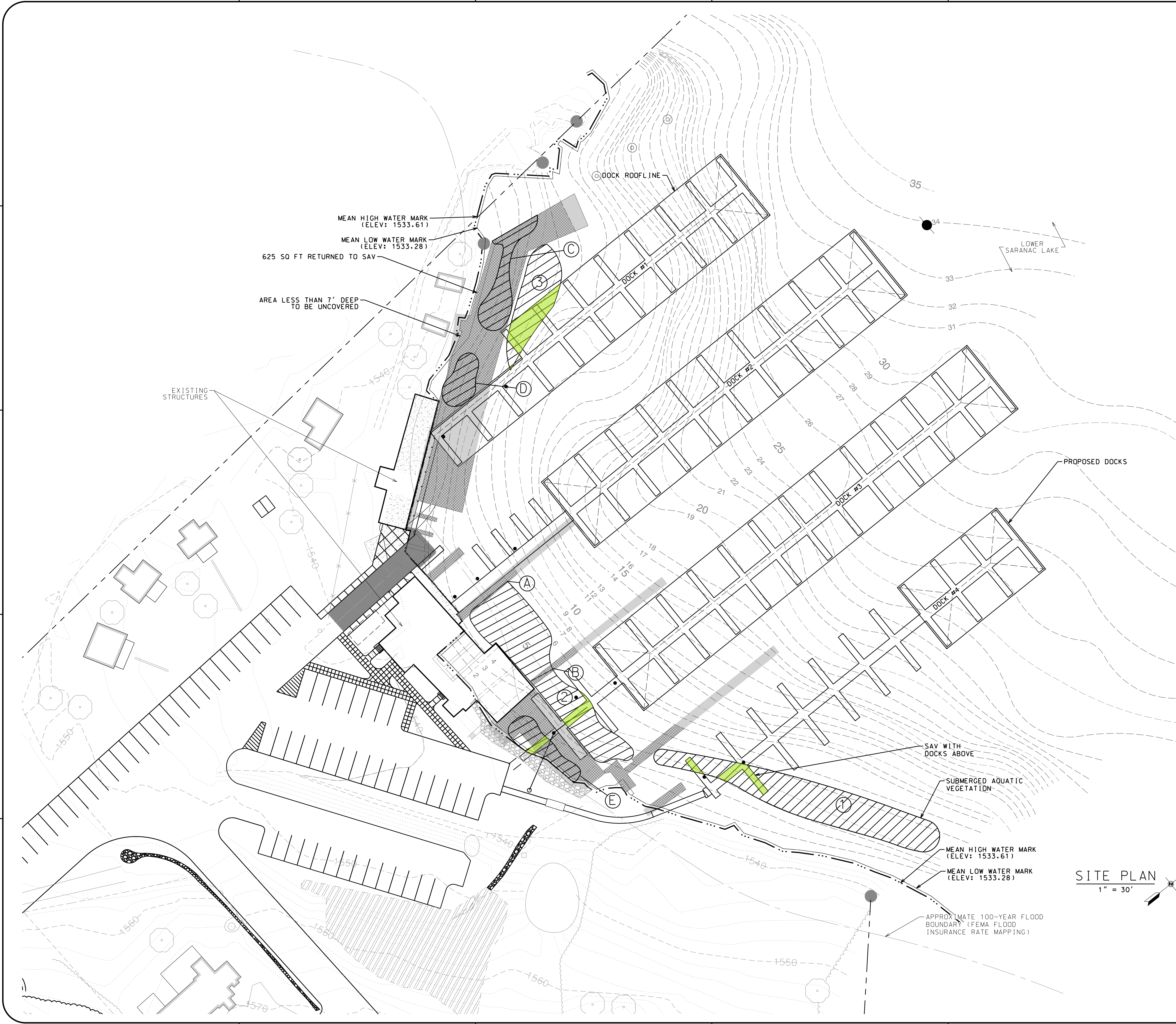
AREA	SIZE (SF)	DOCKS ABOVE (SF)
1	3,722	235
2	3,449	140
3	1,453	551
E	540	62
TOTAL	9,164 SF	988 SF

AREA LESS THAN 7' DEEP TO BE UNCOVERED: 6,827 SF

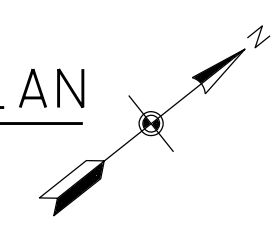
OLD AREA	COVER REMOVED, AREA ALLOWED TO BECOME SAV HABITAT (SF)
A	31
B	64
C	325
D	300
E	540
TOTAL	1,260 SF

NET SAV IMPACT: 1,260 - 988 = 272 SF RETURNED

NOTE:
 AREAS RETURNED TO SAV DETERMINED BY THOMAS WARD, NCS AND VERIFIED BY MARY O'DELL, APA ON 26 AUG 2020.



SITE PLAN
1" = 30'





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SARANAC LAKE MARINA

PROJECT NAME

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SARANAC LAKE, NEW YORK

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06-10-20	APA SUPPLEMENT	C
07-16-20	OWNER CHANGES	D
07-27-20	APA SUPPLEMENT	E
07-31-20	APA SUPPLEMENT	F
09-17-21	APA SUPPLEMENT	G
03-30-23	OWNER CHANGES	H
03-30-23	APA SUPPLEMENT	I

DRAWN BY: BMD/KMR
 CHECKED BY: JA GARSO
 PROJECT #: 19-061
 ORIGINAL 24"x36"

TITLE
**ANNEX MARINA
AQUATIC
VEGETATION
DIAGRAM**

SHEET
C41

SUBMERGED AQUATIC VEGETATION (SAV)

EXISTING BOATHOUSES REMOVED - AREAS ALLOWED TO BECOME SAV HABITAT

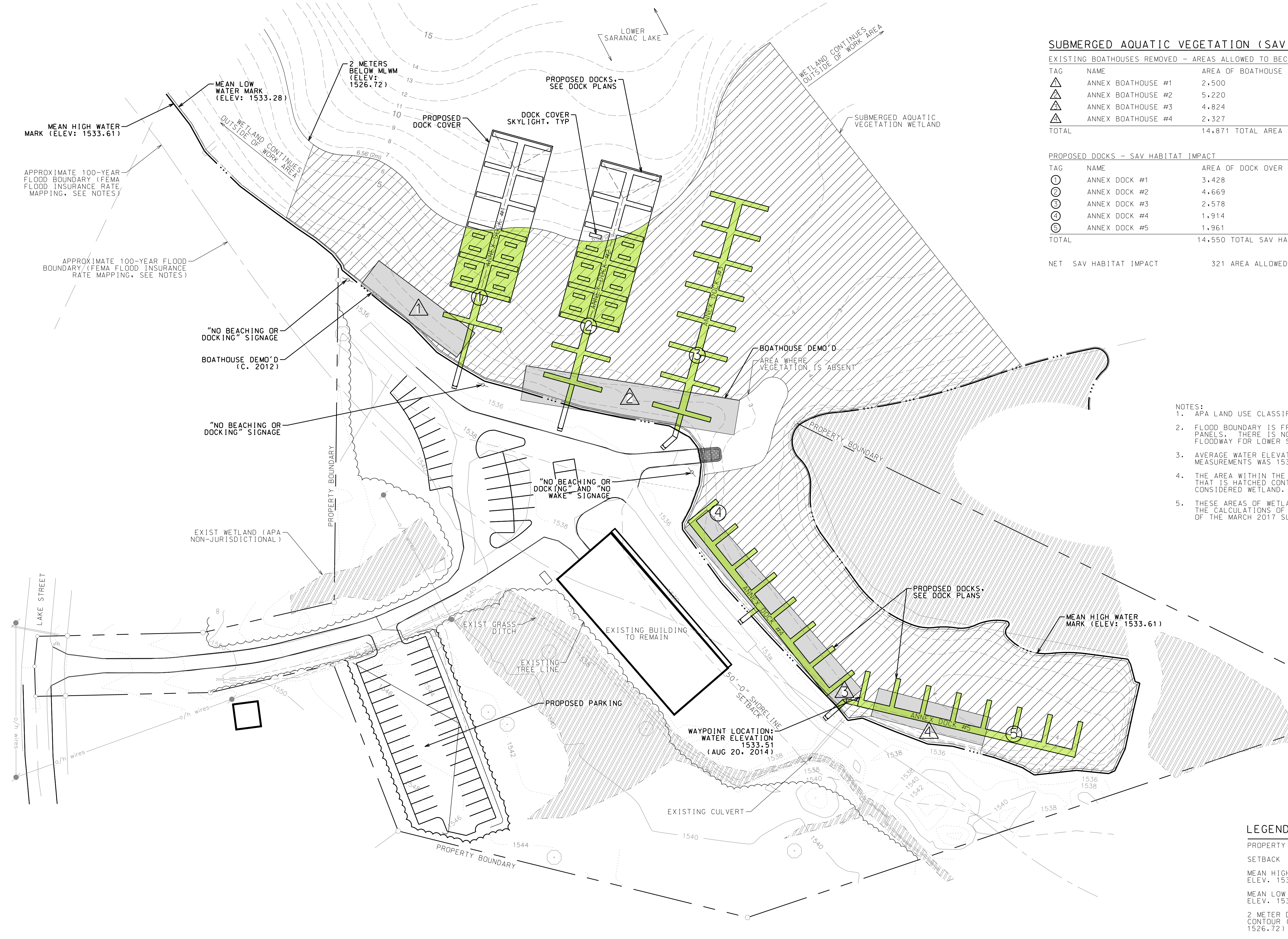
TAG	NAME	AREA OF BOATHOUSE OVER SAV HABITAT (SF)
△	ANNEX BOATHOUSE #1	2,500
△	ANNEX BOATHOUSE #2	5,220
△	ANNEX BOATHOUSE #3	4,824
△	ANNEX BOATHOUSE #4	2,327
TOTAL		14,871 TOTAL AREA ALLOWED TO BECOME SAV HABITAT

PROPOSED DOCKS - SAV HABITAT IMPACT

TAG	NAME	AREA OF DOCK OVER SAV HABITAT (SF)
①	ANNEX DOCK #1	3,428
②	ANNEX DOCK #2	4,669
③	ANNEX DOCK #3	2,578
④	ANNEX DOCK #4	1,914
⑤	ANNEX DOCK #5	1,961
TOTAL		14,550 TOTAL SAV HABITAT IMPACT

NET SAV HABITAT IMPACT 321 AREA ALLOWED TO BECOME SAV HABITAT

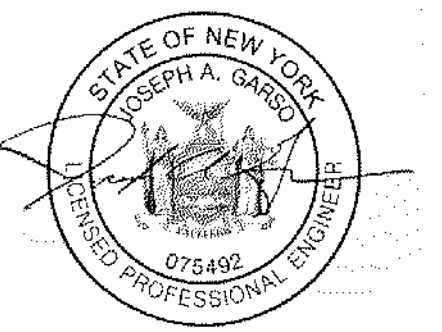
- NOTES:
1. APA LAND USE CLASSIFICATION: HAMLET
 2. FLOOD BOUNDARY IS FROM BEST-FIT FEMA PANELS. THERE IS NO FEMA DESIGNATED FLOODWAY FOR LOWER SARANAC LAKE.
 3. AVERAGE WATER ELEVATION AT TIME OF DEPTH MEASUREMENTS WAS 1533.28
 4. THE AREA WITHIN THE 2 METER CONTOUR LINE THAT IS HATCHED CONTAINS SAV AND IS CONSIDERED WETLAND.
 5. THESE AREAS OF WETLANDS WERE USED IN THE CALCULATIONS OF AREAS IN RESPONSE 4 OF THE MARCH 2017 SUBMITTAL.



LEGEND

PROPERTY BOUNDARY	---
SETBACK	---
MEAN HIGH WATER ELEV. 1533.61	---
MEAN LOW WATER ELEV. 1533.28	---
2 METER DEPTH CONTOUR (ELEV. 1526.72)	~
1' BATHYMETRIC LINE	- - -
100-YEAR FLOOD BOUNDARY	---
FORMER BOATHOUSE LOCATION	▭
SAV WETLAND	▨
SAV WETLAND TO BE COVERED BY DOCK	▩

SITE PLAN
1" = 40'



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PROJECT NAME
LOCATION
4901 NYS ROUTE 3
SARANAC LAKE, NEW YORK

DATE
05-01-20

ISSUED FOR
APA PERMITTING

REV

WETLAND PLANTINGS

CHECKDAM/WEIR

2:1 SEEDED SIDE SLOPE OR FLATTER

ASPHALT PAVEMENT (2) CS1

PEA GRAVEL DIAPHRAGM

UNDISTURBED SUBGRADE

DRAWN BY: BMD/KMR

CHECKED BY: JA GARSO

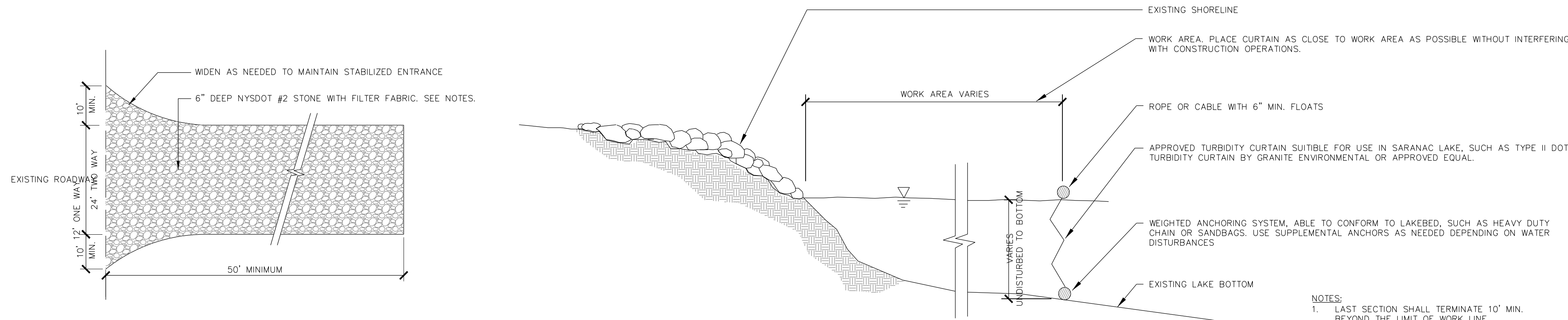
PROJECT #: 19-061

ORIGINAL 24"x36"

TITLE

SITE DETAILS

SHEET
C50



- NOTES:**
1. LAST SECTION SHALL TERMINATE 10' MIN. BEYOND THE LIMIT OF WORK LINE.
 2. ANCHOR ENDS OF CURTAIN ON SHORE. MINIMUM 3' UPLAND OF O.H.W. MARK. TURBITDITY CURTAIN SHALL BE INSTALLED IN ACCORDANCE WITH WITH THE NYS STANDARDS FOR EROSION & SEDIMENT CONTROL.

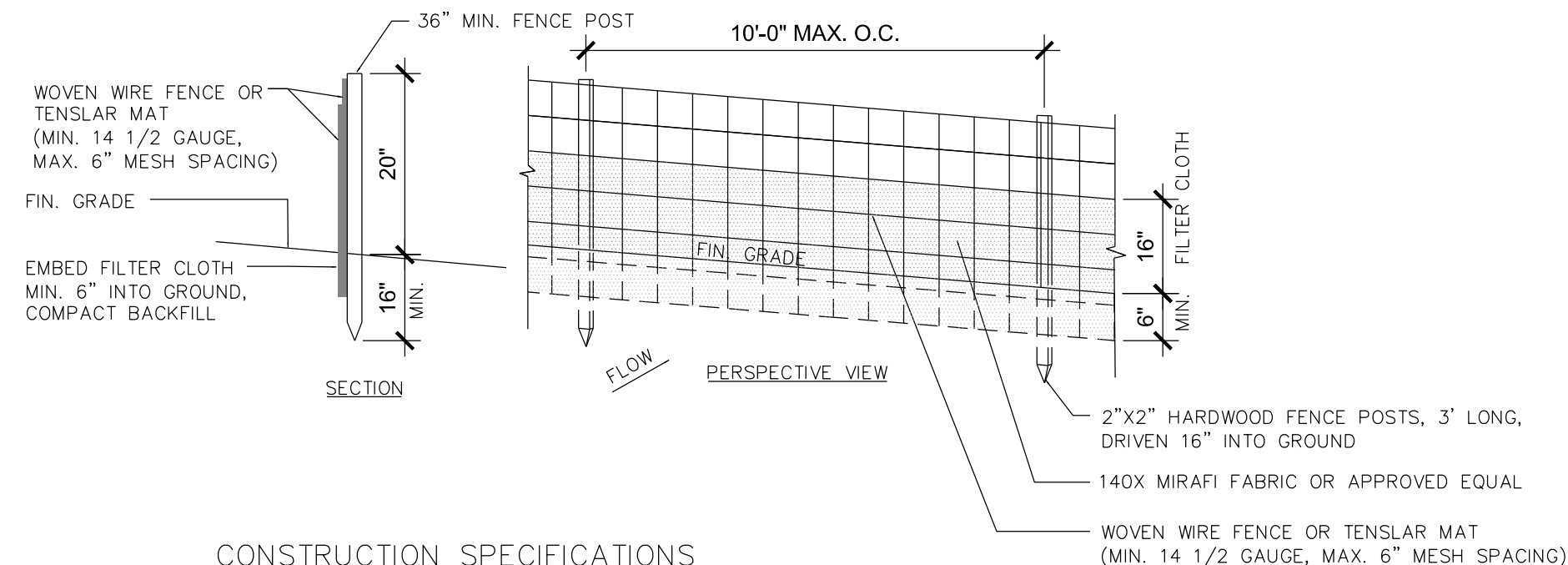
SCALE: NTS

- NOTES:**
- MINIMUM STONE SIZE SHALL BE 1"-4" STONE, INSTALLED OVER FILTER FABRIC TO A MINIMUM DEPTH OF 6".
 - MINIMUM WIDTH SHALL BE 12" FOR ONE WAY TRAFFIC, 24" FOR TWO WAY TRAFFIC. MINIMUM LENGTH SHALL BE 50'.
 - ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED BENEATH ENTRANCE.
 - IF IMPRACTICAL, A MOUNTABLE DIVERSION BERM PREVENTING RUNOFF ONTO ADJACENT ROAD SHALL BE PERMITTED.
 - ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY SHALL BE REMOVED IMMEDIATELY.
 - ALL VEHICLE WASHING SHALL BE DONE IN A STONE STABILIZED AREA WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
 - INSPECT AND MAINTAIN AS NEEDED TO CONFORM TO SPECIFICATIONS AND STORMWATER POLLUTION PREVENTION PLAN.

1 STABILIZED CONSTRUCTION ENTRANCE

SCALE: NTS

NOTE: SILT FENCE LOCATION SHOWN ON PLANS IS DIAGRAMMATIC. SILT FENCE SHALL BE PLACED PARALLEL TO CONTOURS.

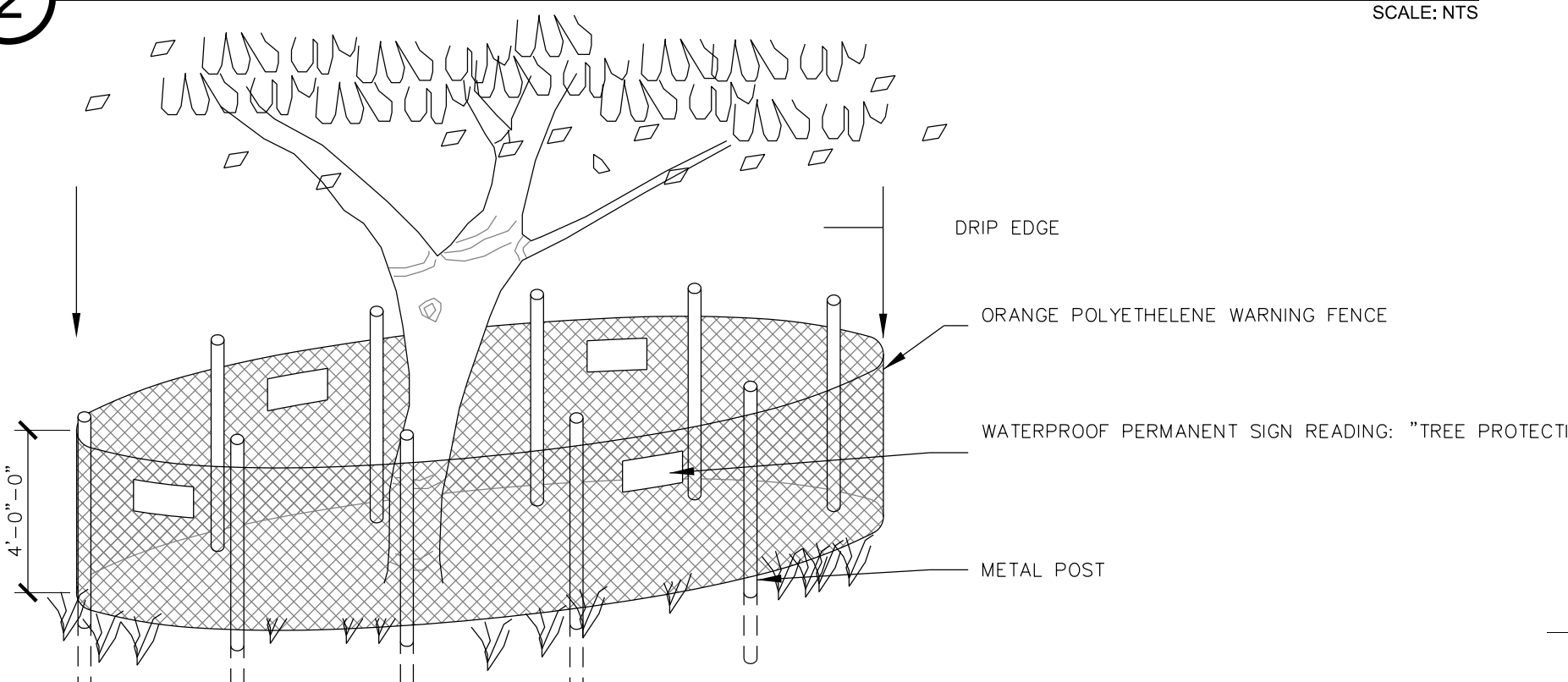


CONSTRUCTION SPECIFICATIONS

1. WOVEN WIRE FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES. POSTS SHALL BE STEEL EITHER "T" OR "U" TYPE OR HARDWOOD.
2. FILTER CLOTH TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24" AT TOP AND MID SECTION. FENCE SHALL BE WOVEN WIRE, 12 1/2 GAUGE, 6" MAXIMUM MESH OPENING.
3. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVER-LAPPED BY SIX INCHES AND FOLDED. FILTER CLOTH SHALL BE EITHER FILTER X, MIRAFI 100X, STABILINKA T140N, OR APPROVED EQUIVALENT.
4. PREFABRICATED UNITS SHALL BE GEOFAB, ENVIROFENCE, OR APPROVED EQUIVALENT.
5. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN 1/3 HEIGHT OF SILT FENCE IS REACHED OR WHEN "BULGES" DEVELOP IN THE SILT FENCE.

2 SILT FENCE

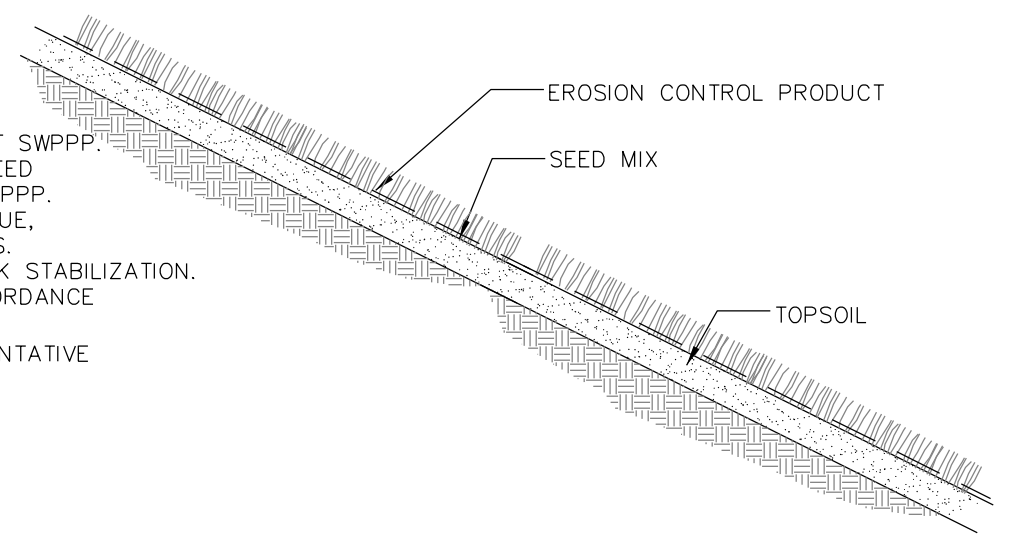
SCALE: NTS



3 TREE PROTECTION FENCE

SCALE: NTS

- NOTES:**
- ALL SLOPES GREATER THAN 3:1 SHALL BE STABILIZED WITH HYDROSEED APPLICATION OF "FLEXITERA" BONDED FIBER MATRIX, ROLLED EROSION CONTROL PRODUCT, OR APPROVED EQUAL, AND IN ACCORDANCE WITH THE PROJECT SWPPP.
 - SLOPES LESS THAN 3:1 SHALL BE STABILIZED WITH SEED AND STRAW MULCH IN ACCORDANCE WITH THE PROJECT SWPPP.
 - SEED MIX SHALL BE 43% BOREAL CREEPING RED FESCUE, 34% PERENNIAL RYEGRASS, AND 17% KENTUCKY BLUEGRASS. UP TO 20% ANNUAL RYE MAY BE ADDED TO MIX FOR QUICK STABILIZATION.
 - INSTALL EROSION CONTROL PRODUCTS IN STRICT ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. ANY PROPOSED SUBSTITUTIONS SHALL BE SUBMITTED TO OWNER'S REPRESENTATIVE FOR APPROVAL PRIOR TO INSTALLATION.

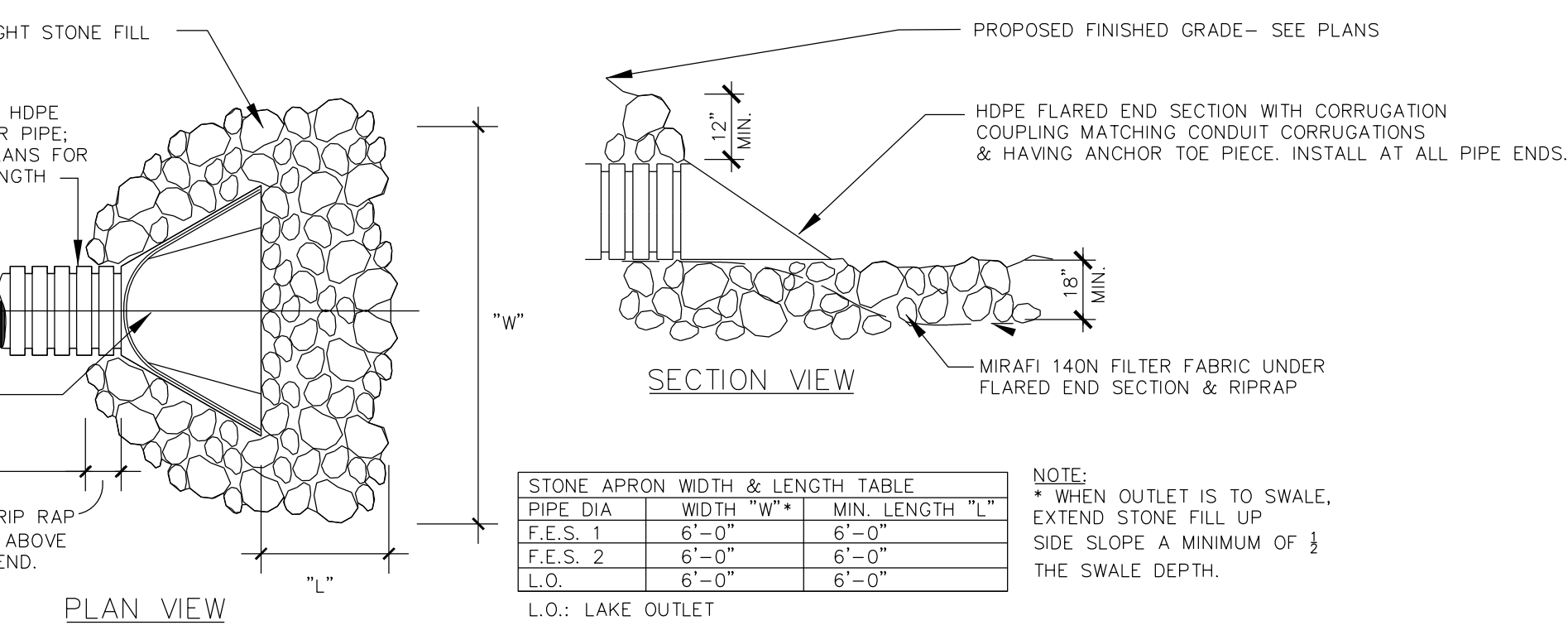


4 SLOPE STABILIZATION

SCALE: NTS

6 STONE CHECKDAM

SCALE: NTS



STONE APRON WIDTH & LENGTH TABLE

PIPE DIA	WIDTH "W"	MIN. LENGTH "L"
F.E.S. 1	6'-0"	6'-0"
F.E.S. 2	6'-0"	6'-0"
L.O.	6'-0"	6'-0"

L.O.: LAKE OUTLET

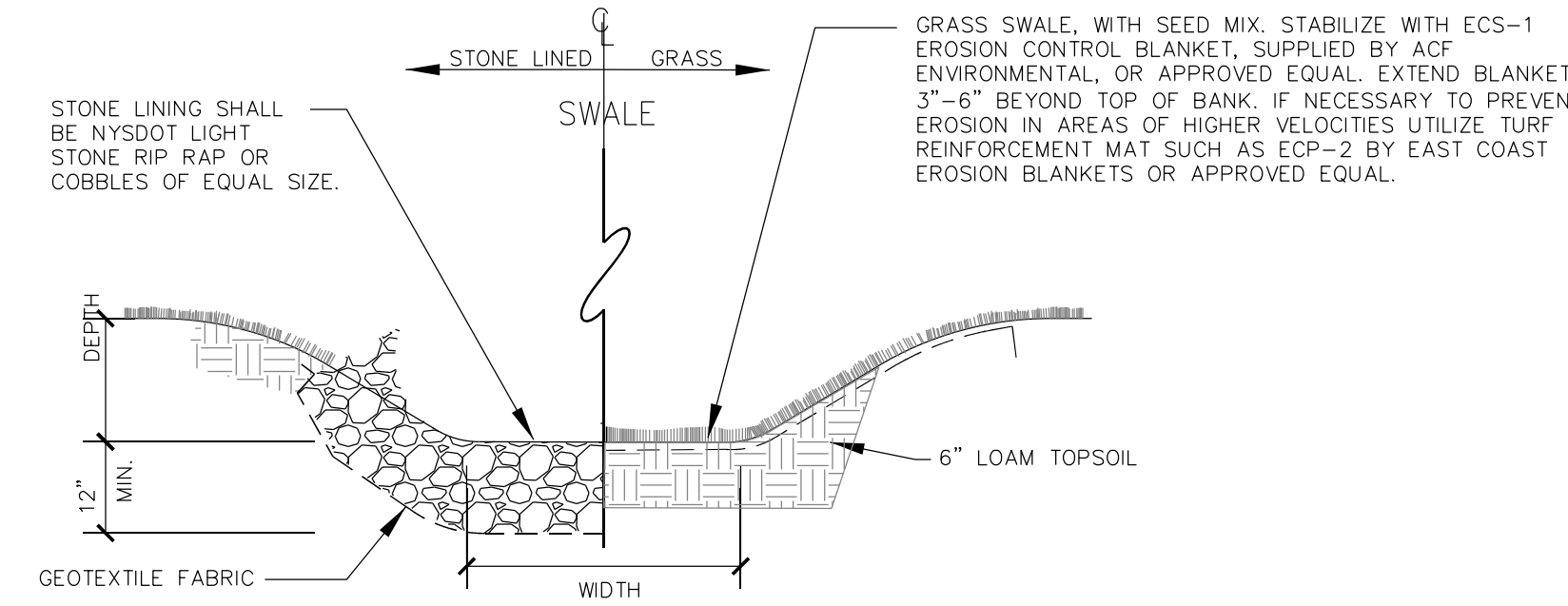
- NOTE:**
- WHEN OUTLET IS TO SWALE, EXTEND STONE FILL UP SIDE SLOPE A MINIMUM OF 1/3 THE SWALE DEPTH.

7 OUTLET PROTECTION AND FLARED END SECTION

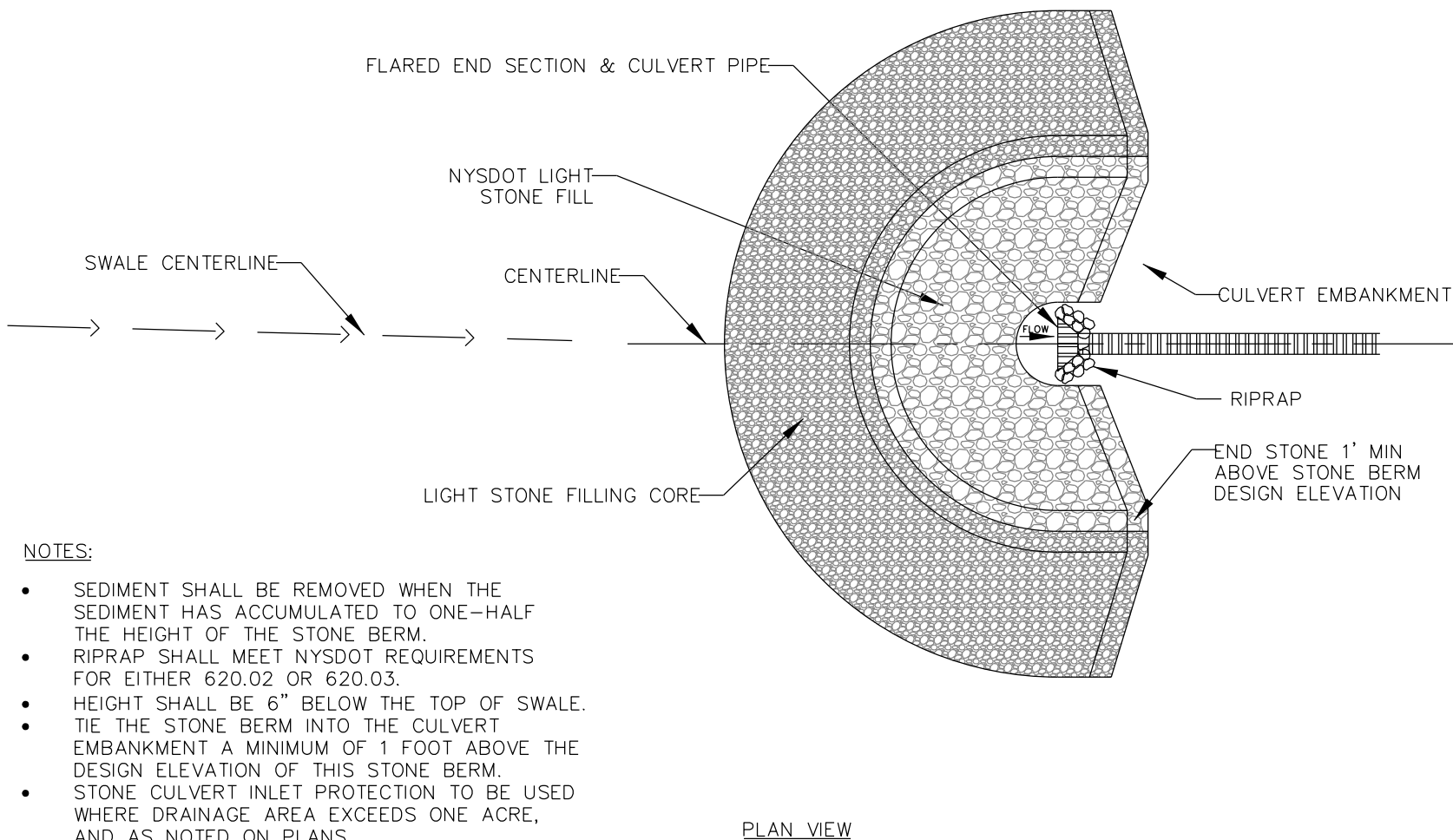
SCALE: NTS

8 STORM CONVEYANCE SWALE

SCALE: NTS



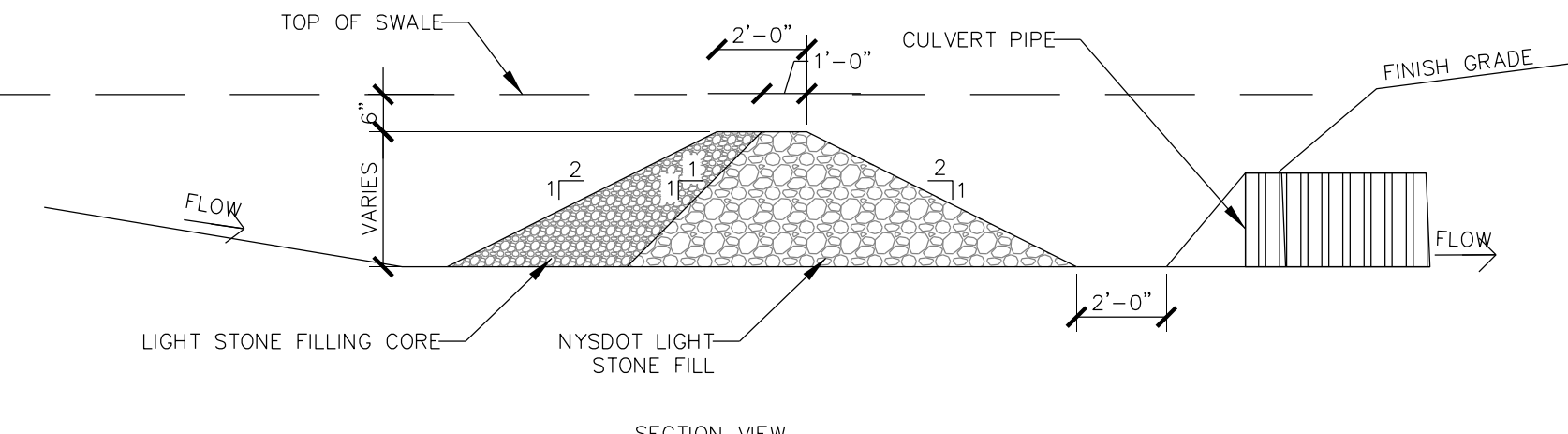
- NOTES:**
- EROSION CONTROL PRODUCTS SHALL BE INSTALLED IN STRICT ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
 - ANY PROPOSED SUBSTITUTION SHALL BE SUBMITTED TO OWNER'S REPRESENTATIVE AND QUALIFIED INSPECTOR FOR APPROVAL PRIOR TO CONSTRUCTION.
 - FINAL SURFACING AS NOTED ON PLANS.
 - WIDTH AND DEPTH AS INDICATED ON GRADING PLANS.



- NOTES:**
- SEDIMENT SHALL BE REMOVED WHEN THE SEDIMENT HAS ACCUMULATED TO ONE-HALF THE HEIGHT OF THE STONE BERM.
 - RIPRAP SHALL MEET NYSDOT REQUIREMENTS FOR EITHER 620.02 OR 620.03.
 - HEIGHT SHALL BE 6" BELOW THE TOP OF SWALE.
 - TIE THE STONE BERM INTO THE CULVERT EMBANKMENT A MINIMUM OF 1 FOOT ABOVE THE DESIGN ELEVATION OF THIS STONE BERM.
 - STONE CULVERT INLET PROTECTION TO BE USED WHERE DRAINAGE AREA EXCEEDS ONE ACRE, AND AS NOTED ON PLANS.

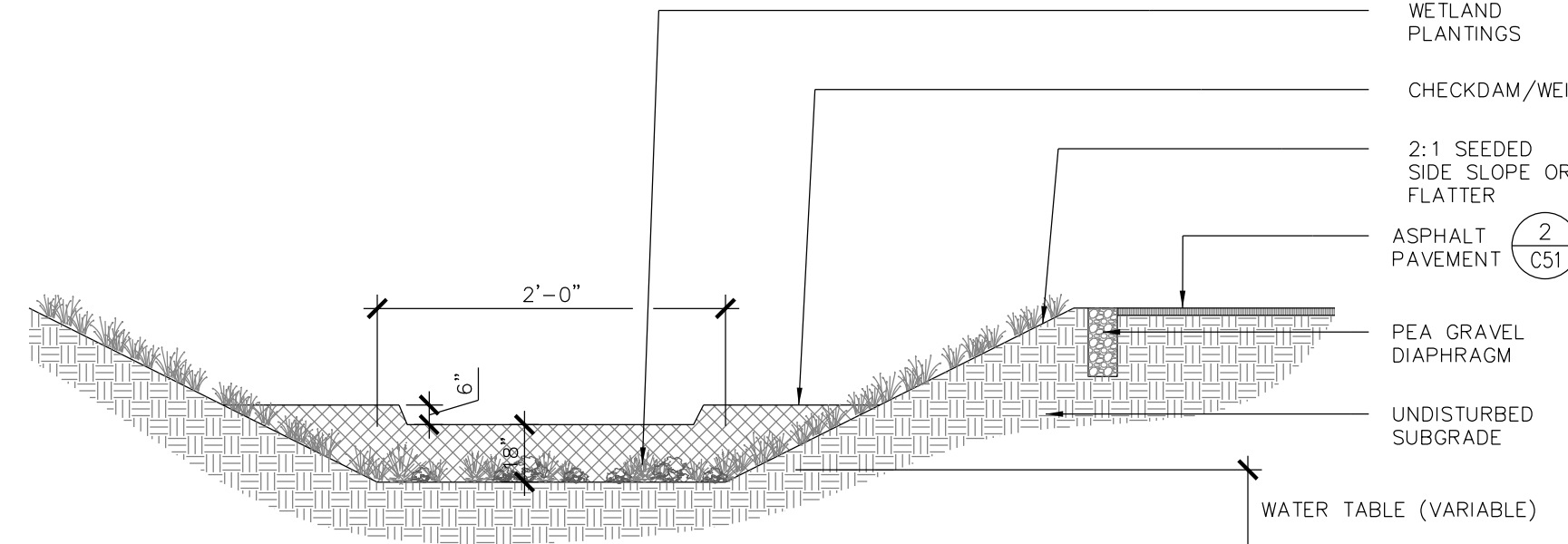
9 CULVERT INLET PROTECTION

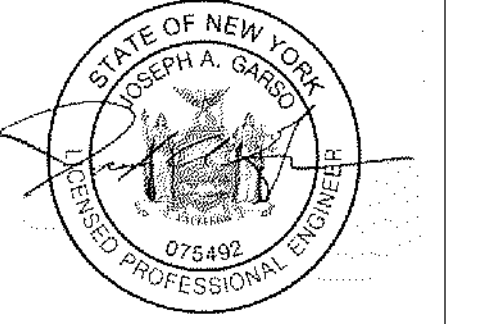
SCALE: NTS



10 WET SWALE

SCALE: NTS





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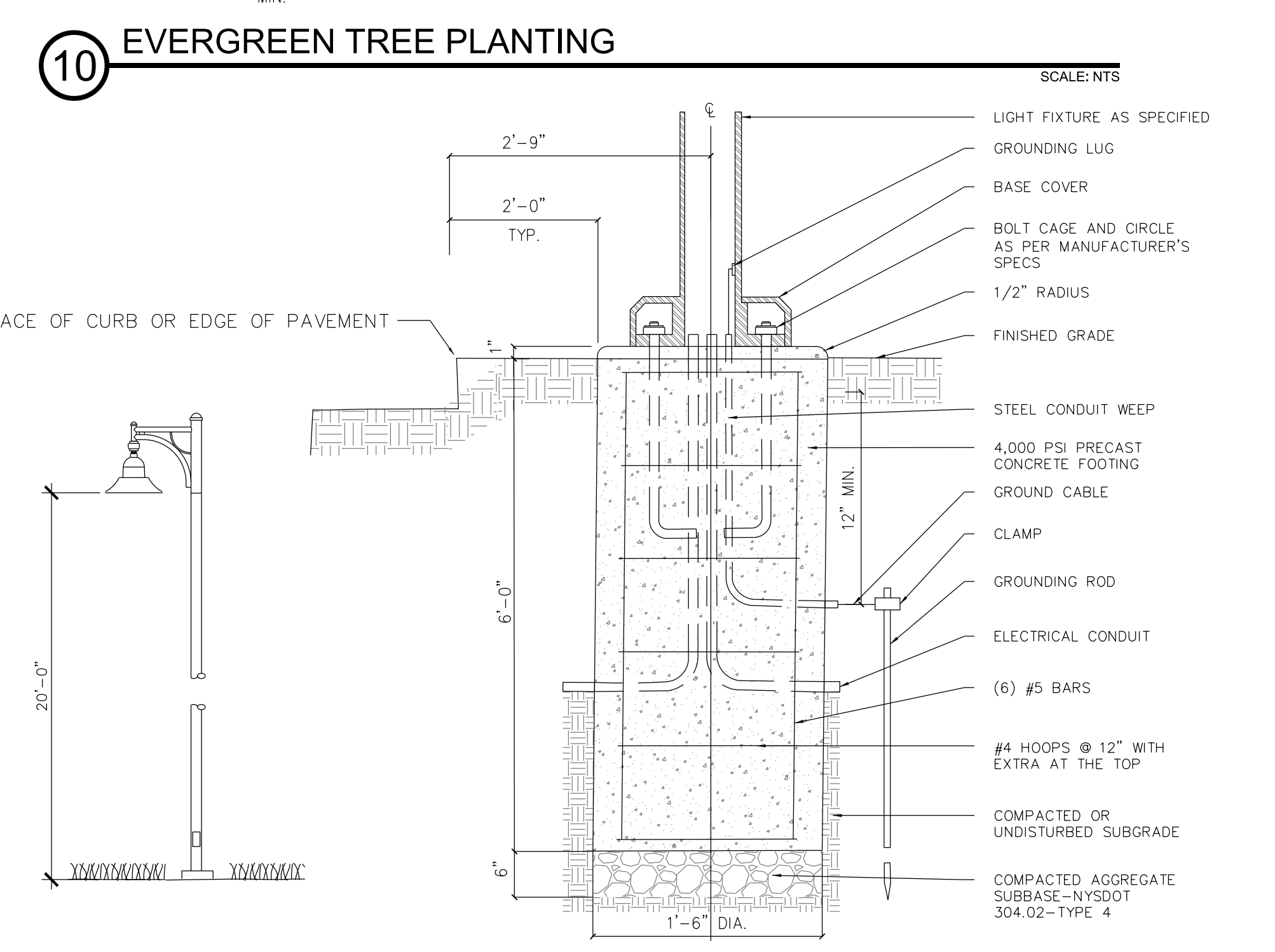
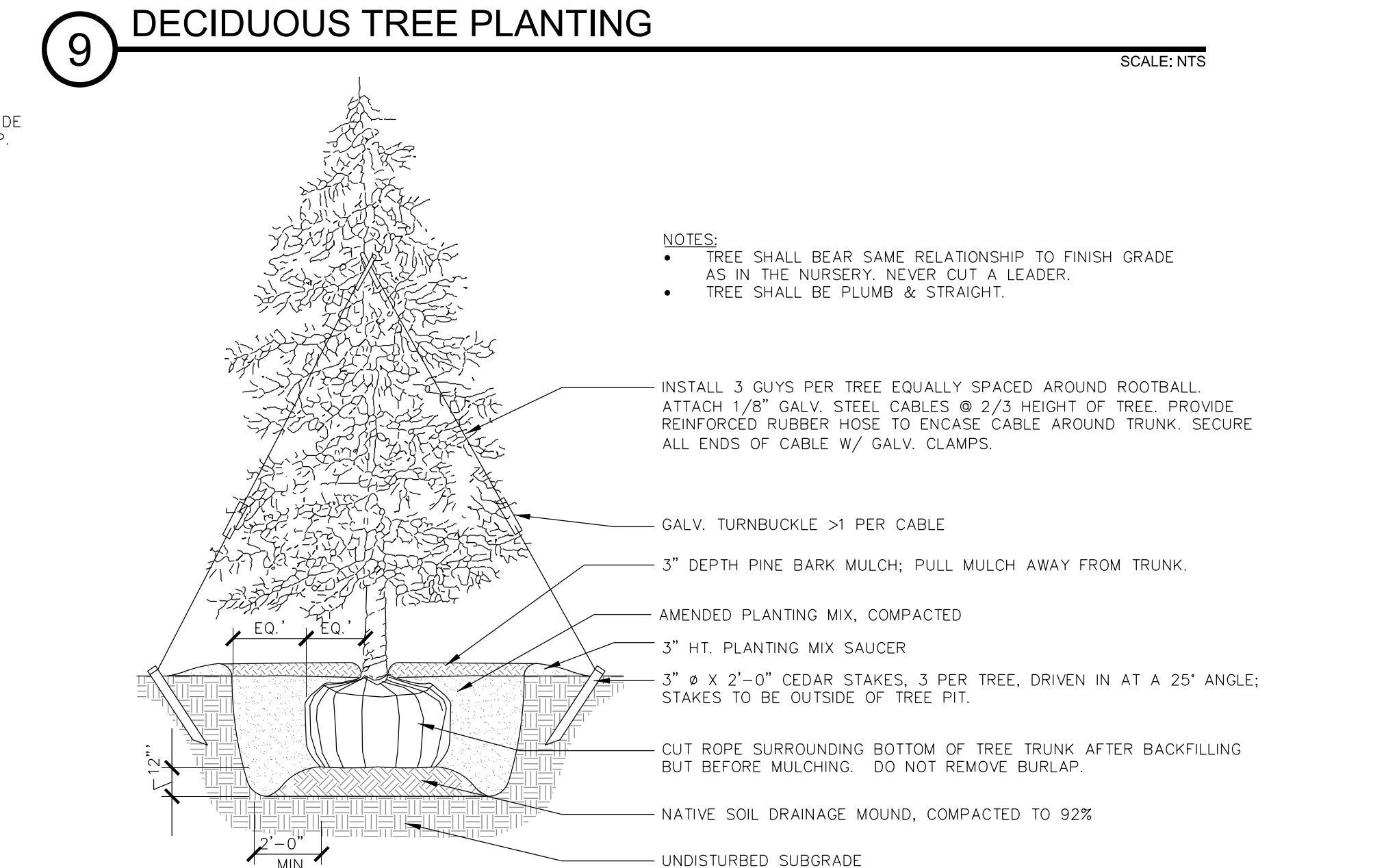
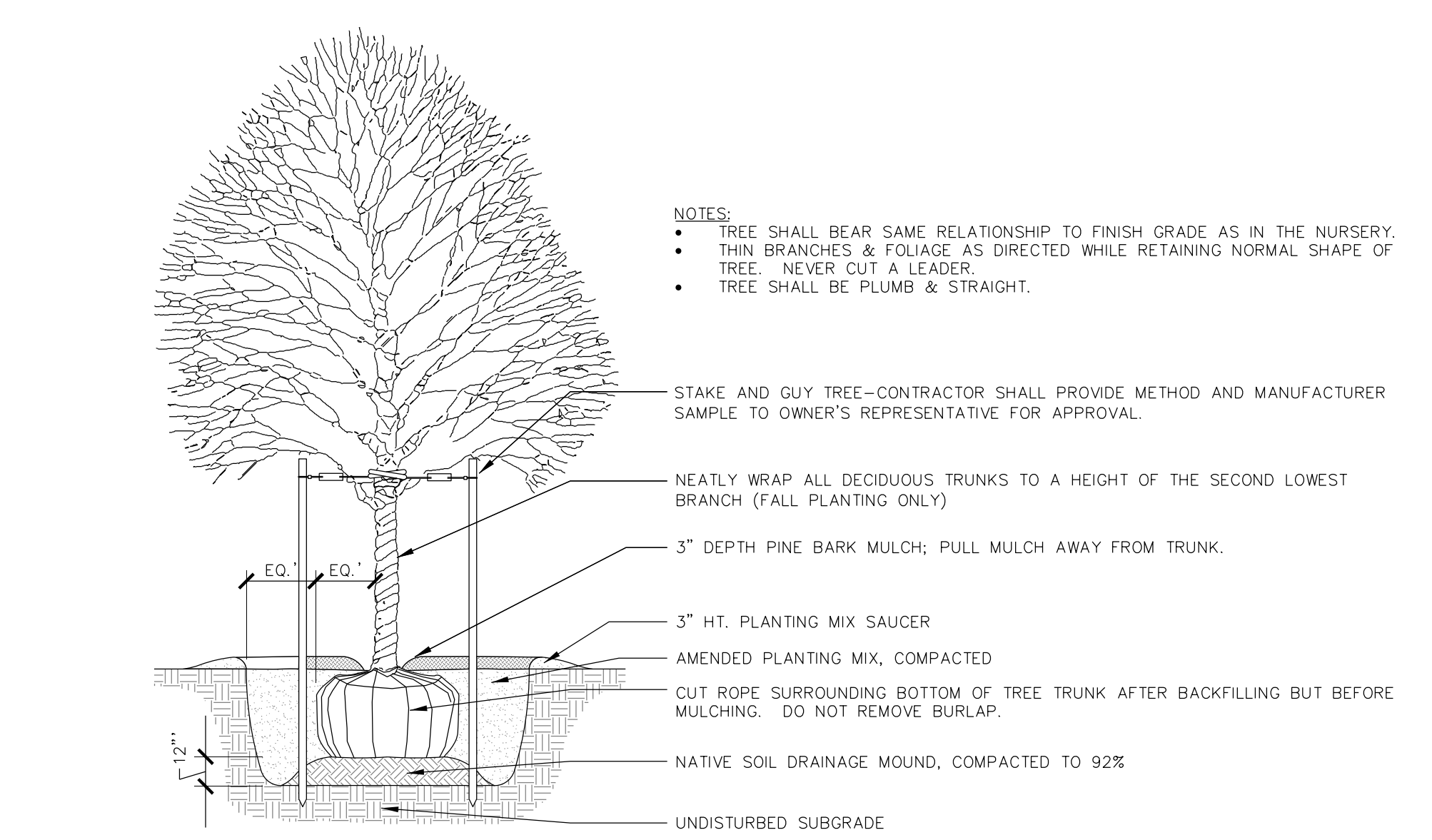
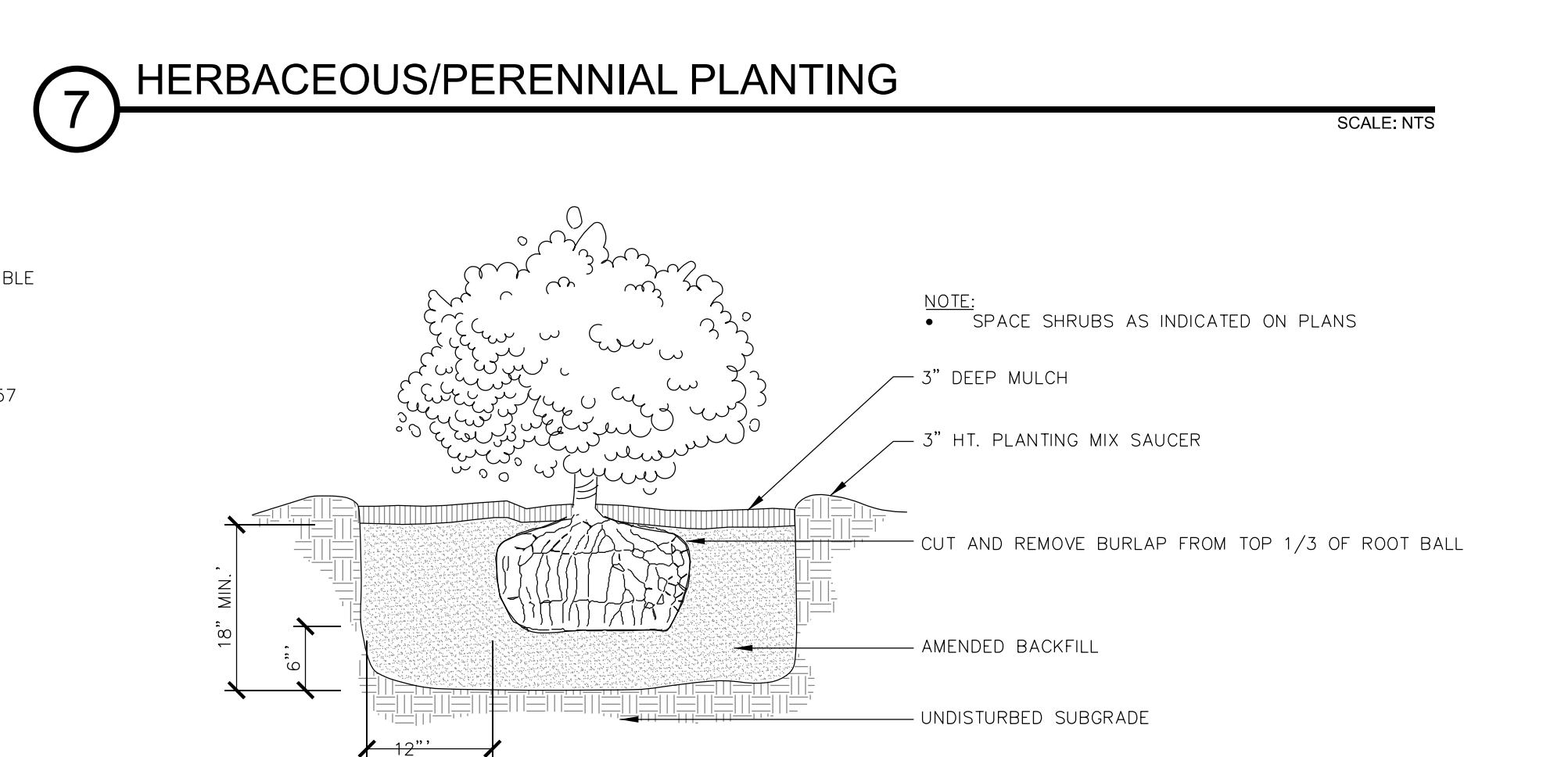
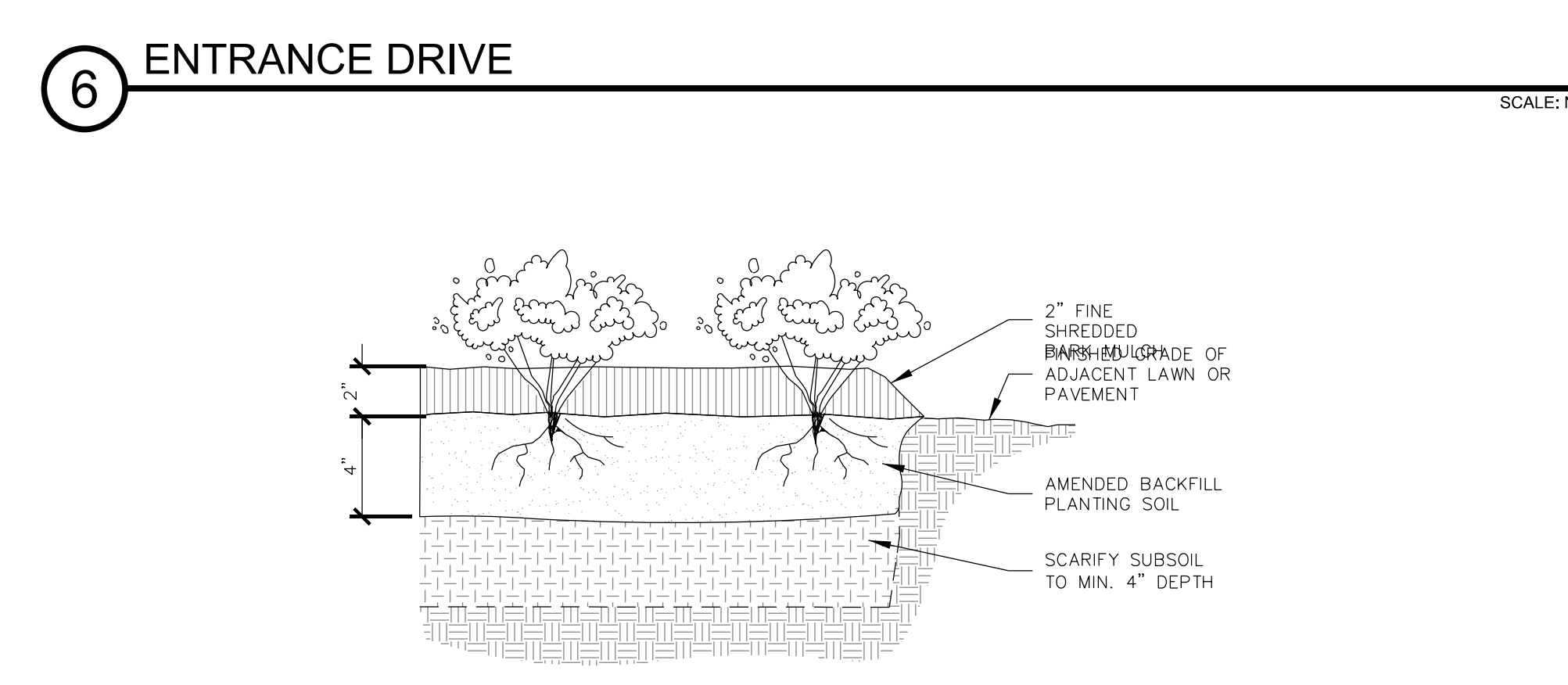
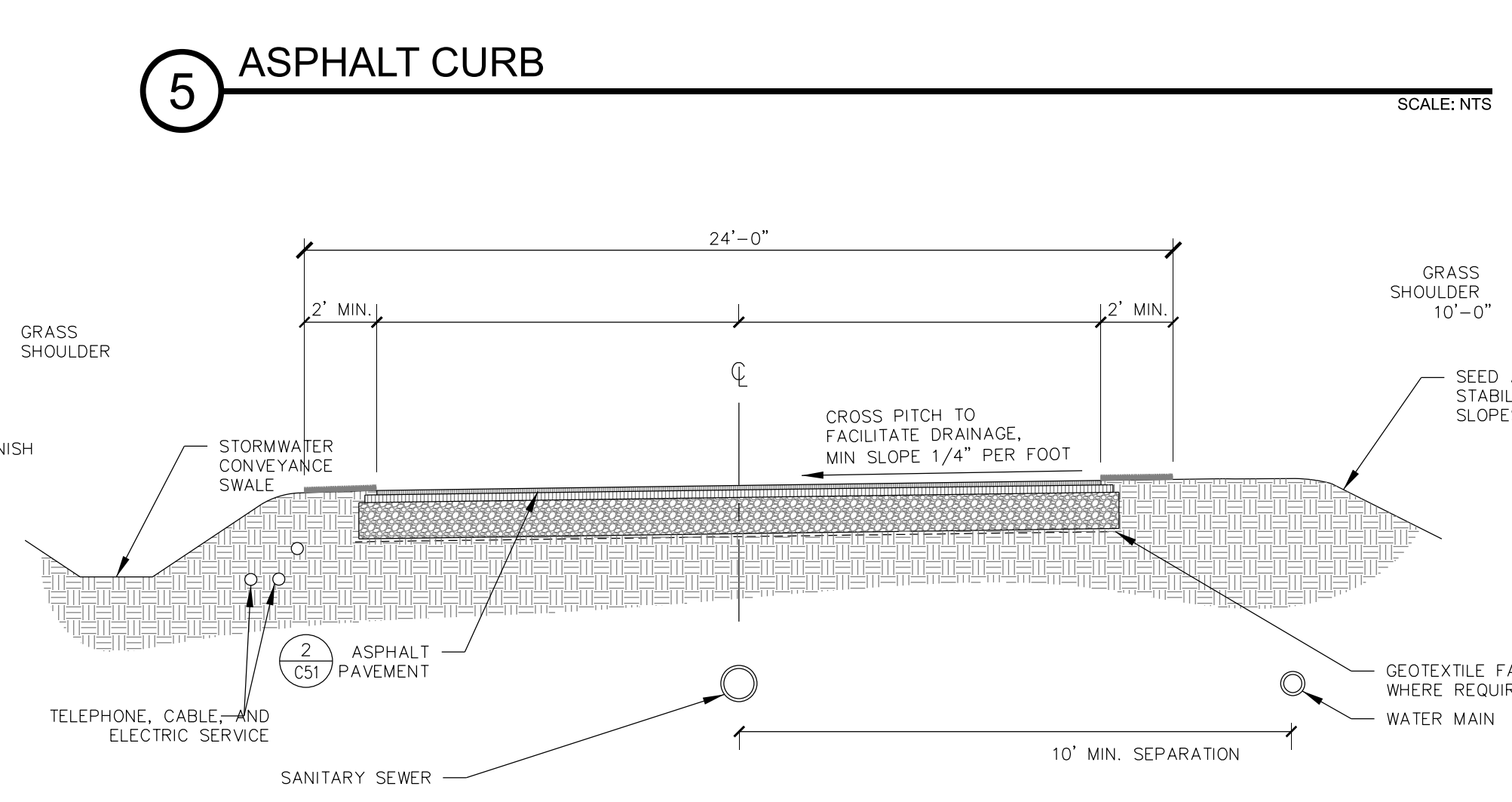
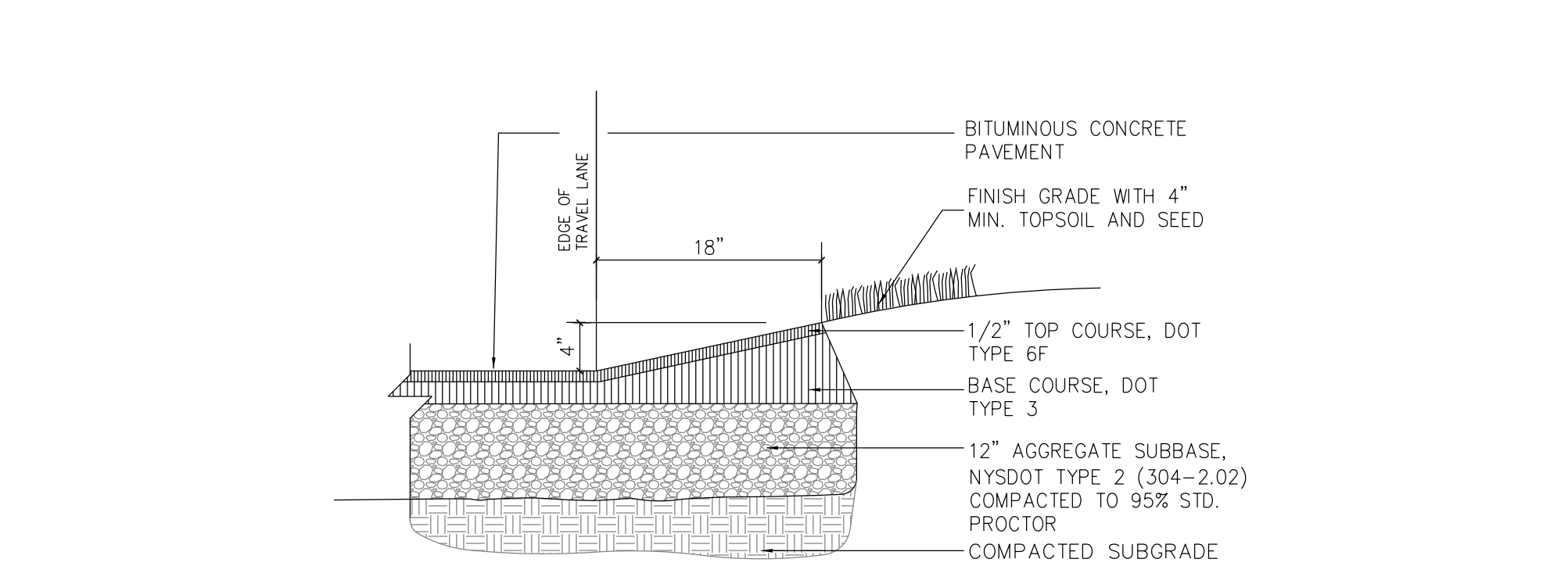
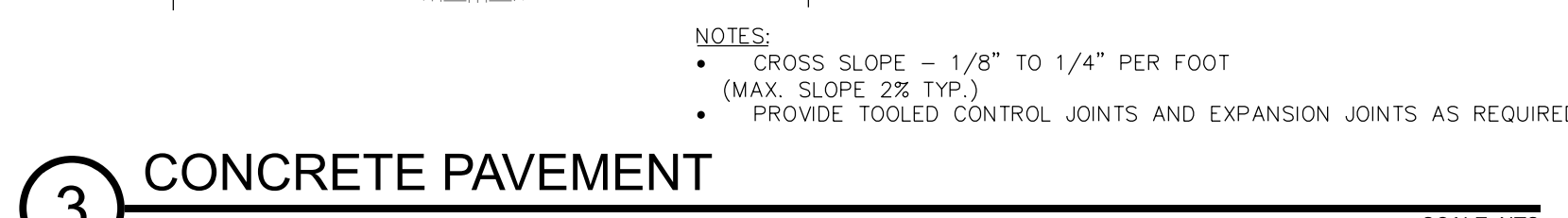
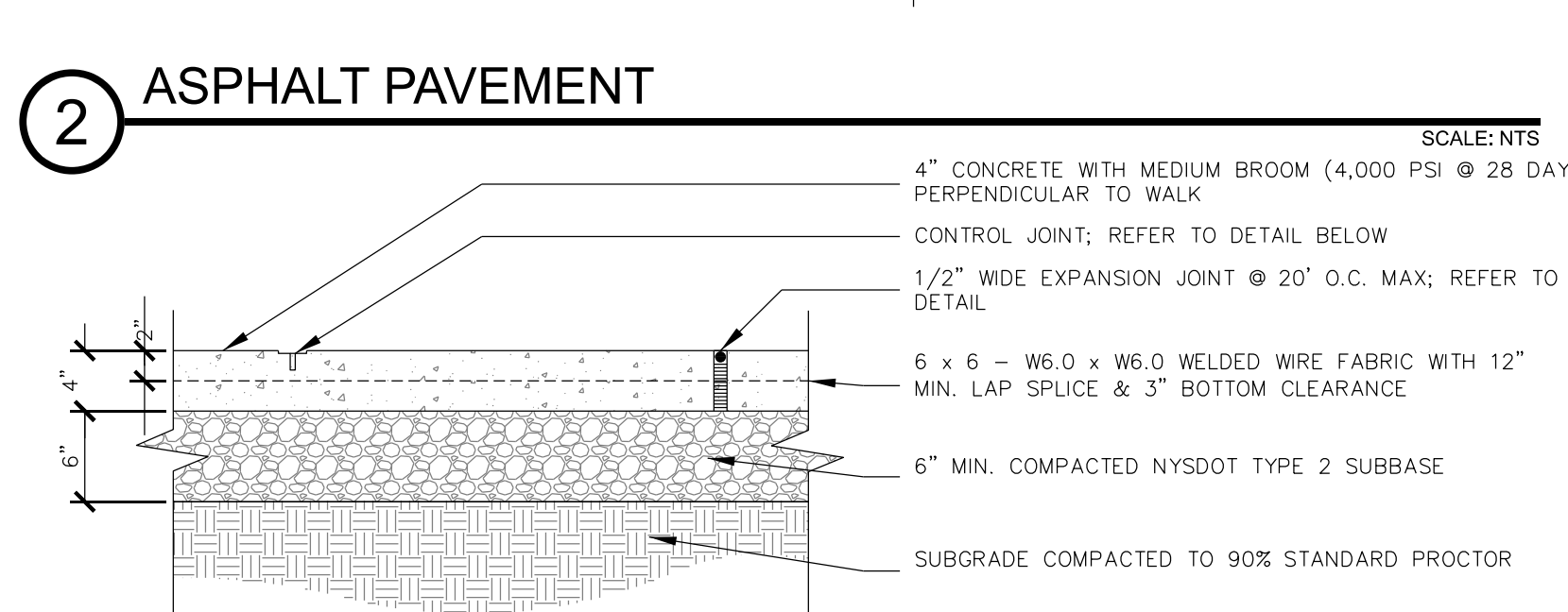
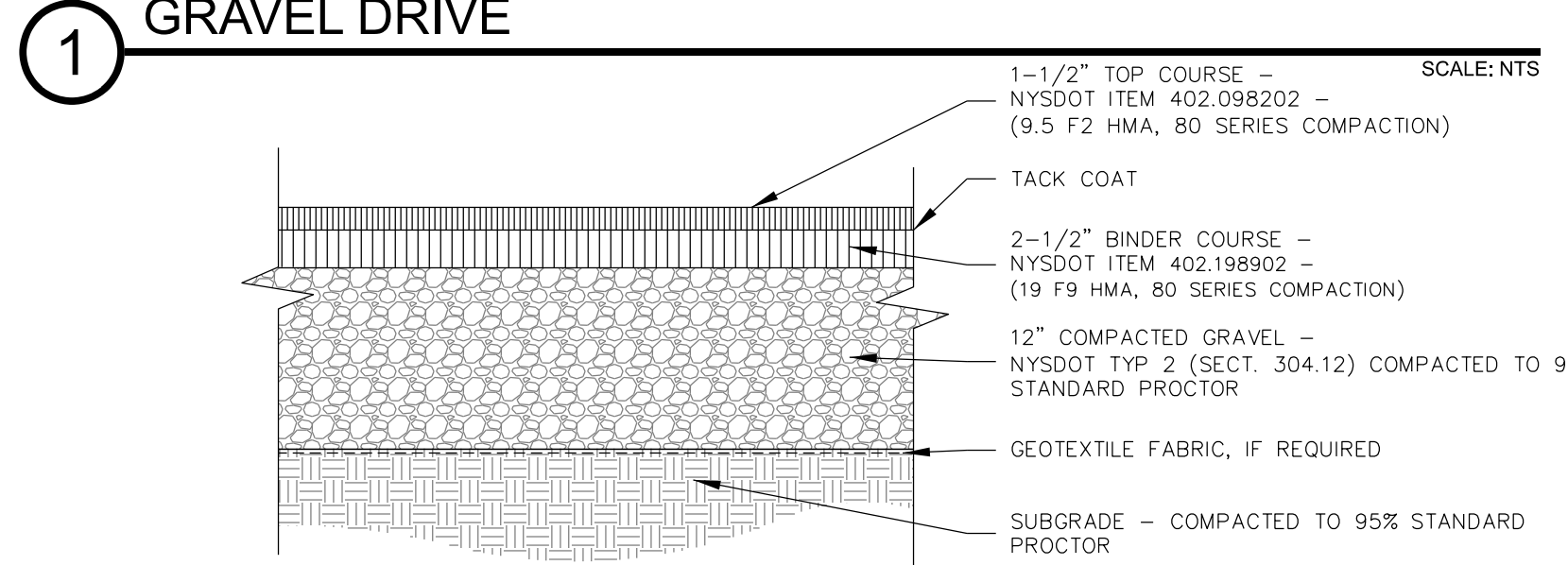
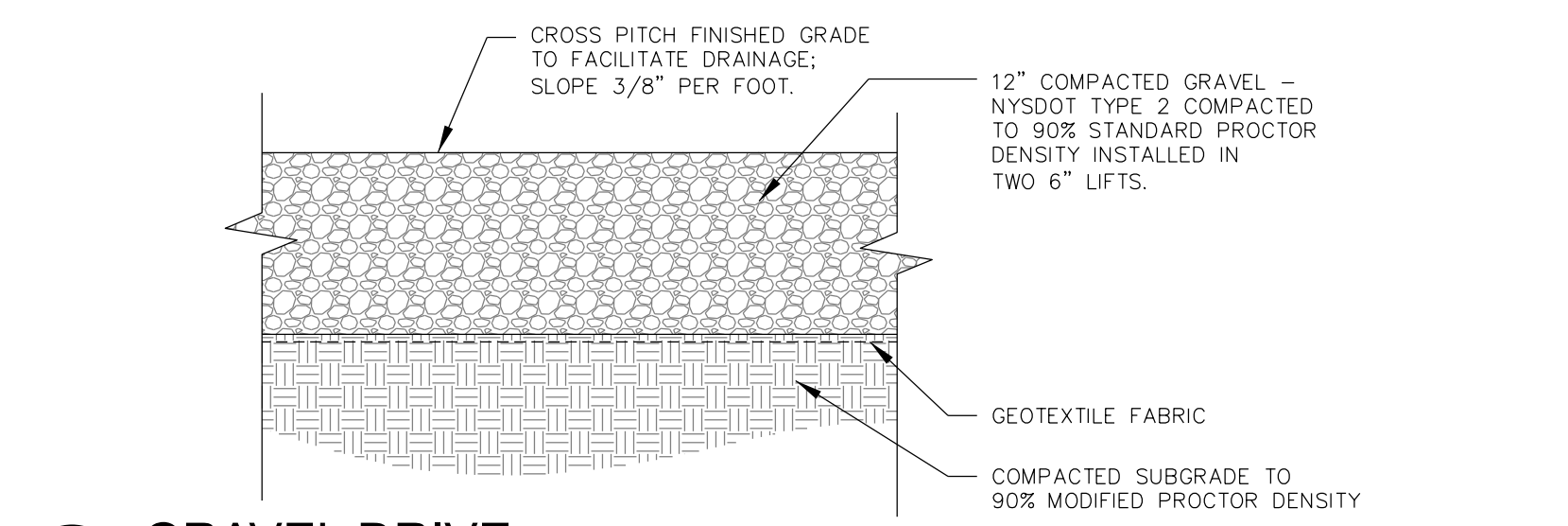
LS MARINA, LLC
SARANAC LAKE MARINA

PROJECT NAME
 LOCATION
 4901 NYS ROUTE 3
 SARANAC LAKE, NEW YORK

DATE	ISSUED FOR	REV
05-01-20	APA PERMITTING	

DRAWN BY: BMD/KMR
 CHECKED BY: JA GARSO
 PROJECT #: 19-061
 ORIGINAL 24"x36"

TITLE
SITE DETAILS
 SHEET
C51



NOTES:

- CROSS SLOPE - 1/8" TO 1/4" PER FOOT (MAX. SLOPE 2% TYP.)
- PROVIDE TOOLED CONTROL JOINTS AND EXPANSION JOINTS AS REQUIRED.

SPECIFICATIONS

UNITS
 UNIT SIZE - 50 CM x 50 CM x 2.5 CM (20" x 20" x 1")
 AVAILABLE IN 9 STANDARD ROLL SIZES

UNIT WEIGHT - 538 GRAMS (19 OZ.) OR 2.2 KG (4.9 POUNDS)

STRENGTH - 402 KG/CM (5720 PSI)

COLOR - BLACK (STANDARD)

RESIN - 100% POST-CONSUMER RECYCLED HDPE/LDPE

FABRIC WEIGHT - 3.5 OZ./SY (120 GM²/M²)

TENSILE - 120 LB/FT (585 KG/M²)

FLOW - 275 GAL./MIN/SP (11,200 L/MIN/M)

OPTIONS - CUSTOM FABRIC TO 6 OZ AVAILABLE

GRAVELPAVE2
 ADJACENT GRAVELPAVE2
 FILTER FABRIC ATTACHED TO BOTTOM OF GRAVELPAVE2 SEE ENLARGEMENT BELOW

SECTION
 GRAVELPAVE2 FILLED WITH 3/16" TO 3/8" ANGULAR GRAVEL, UNIFORM SIZE, DOUBLE WASHED
 UPPER CHOKER COURSE: AASHTO #57 STONE, DOUBLE WASHED, ROLLED TO PROVIDE DRIVEABLE SURFACE.
 RESERVOIR COURSE: AASHTO #3 STONE, DOUBLE WASHED
 LOWER CHOKER COURSE: AASHTO #8 STONE OR #57 STONE, DOUBLE WASHED
 UNDISTURBED SUBGRADE, DO NOT COMPACT
 NOTE: PROVIDE GEOTEXTILE FABRIC ON VERTICAL SIDES UP AGGREGATE TO SEPARATE AGGREGATE LAYERS FROM ADJACENT SOIL SUBGRADE.

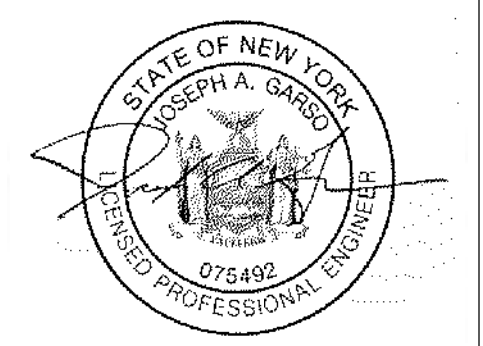
ENLARGEMENT
 TOP OF GRAVEL
 GRAVELPAVE2; ATTACH WITH SNAP FIT FASTENERS
 FILTER FABRIC - OVERLAPPING JOINTS
 FILL RING SECTION WITH 3/16" TO 3/8" ANGULAR GRAVEL, UNIFORM SIZE, WASHED
 COMPACTED STONE

NOTES:

- PRODUCT SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S GUIDELINES.
- SIDESLOPE GEOTEXTILE AND POROUS MEDIA BED AGGREGATE SHALL BE PLACED IMMEDIATELY AFTER APPROVAL OF SUBGRADE PREPARATION.
- PLACE SIDESLOPE GEOTEXTILE IN ACCORDANCE WITH MANUFACTURER'S STANDARDS AND RECOMMENDATIONS. ADJACENT STRIPS OF GEOTEXTILE SHALL OVERLAP A MINIMUM OF SIXTEEN INCHES (16"). TAKE ANY STEPS NECESSARY TO PREVENT ANY RUNOFF OR SEDIMENT FROM ENTERING THE STORAGE BED. THIS CAN BE DONE WITH ADDITIONAL EROSION CONTROL MEASURES OR BY EXTENDING THE GEOTEXTILE 4' BEYOND THE EDGE OF THE POROUS GRAVEL BED. MEASURES SHALL REMAIN IN PLACE UNTIL ALL BARE SOILS CONTIGUOUS TO BEDS ARE STABILIZED AND VEGETATED.
- SPREAD 6-INCH LIFTS OF THE APPROPRIATE CLEAN, WASHED STONE AGGREGATE AND THEN COMPACT IT USING A ROLLER UNTIL THERE IS NO VISIBLE MOVEMENT OF THE AGGREGATE. DO NOT CRUSH THE AGGREGATE WITH THE ROLLER.

NOTES:

- LIGHT FIXTURE SHALL BE THE OMEGA SERIES WITH "NIGHT SKY STAR SHIELD OPTICS" BY STERNBERG LIGHTING, OR APPROVED EQUAL.
- PROPOSED SUBSTITUTIONS SHALL BE DARK SKY COMPLIANT AND BEAR THE "IDA APPROVED" LOGO. MAX. FIXTURE HEIGHT SHALL BE 20' ABOVE FINISH GRADE. LAMP SHALL BE LED OR METAL HALIDE WITH FULL CUTOFF DISTRIBUTION. FINISH SHALL BE BLACK.



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L.S. MARINA, LLC
SARANAC LAKE MARINA

PROJECT NAME

LOCATION
4901 NYS ROUTE 3
SARANAC LAKE, NEW YORK

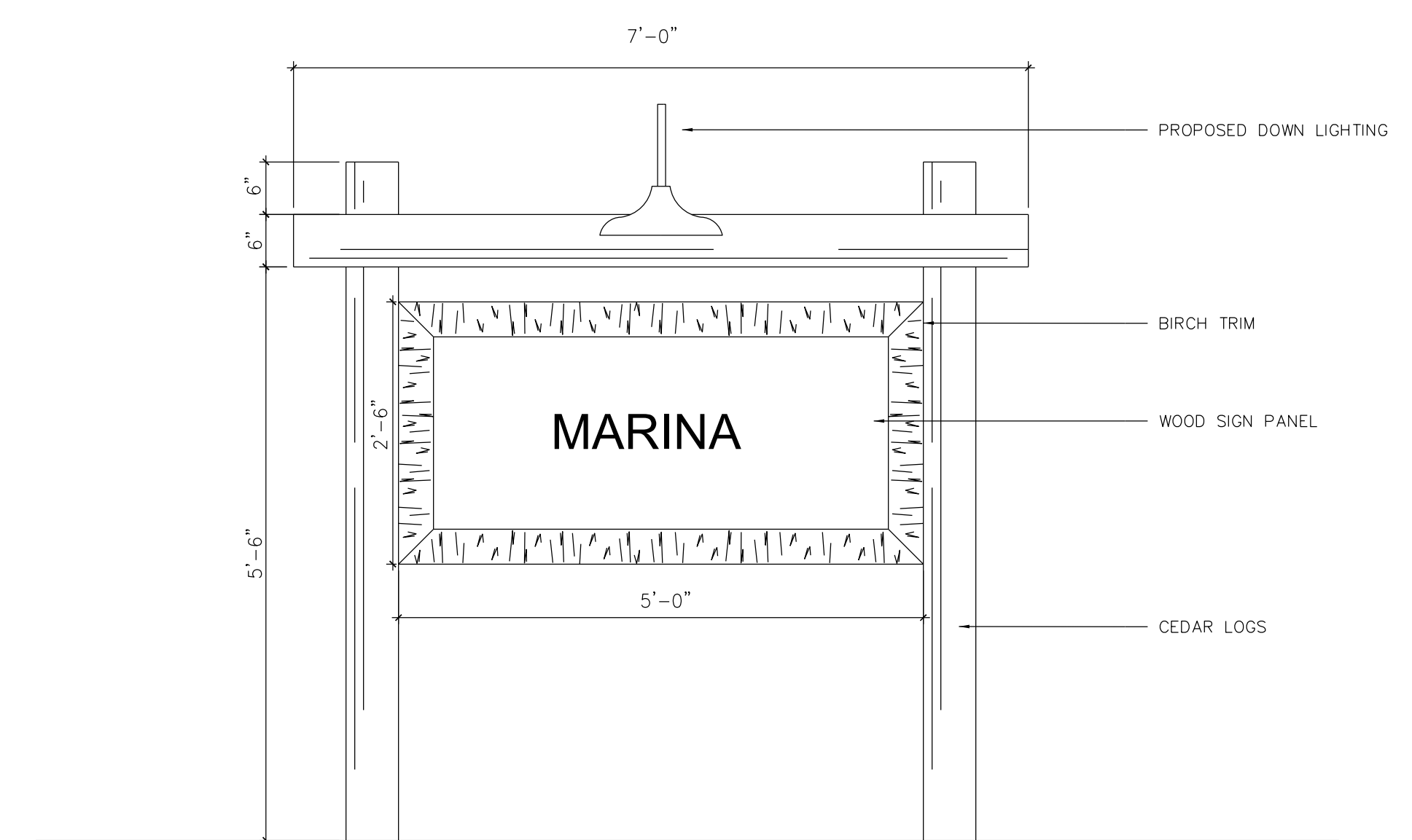
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05-01-20	APA PERMITTING	

DRAWN BY: BMD/KMR
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 PROJECT #: 19-061
 ORIGINAL 24"x36"

TITLE

SITE DETAILS

SHEET

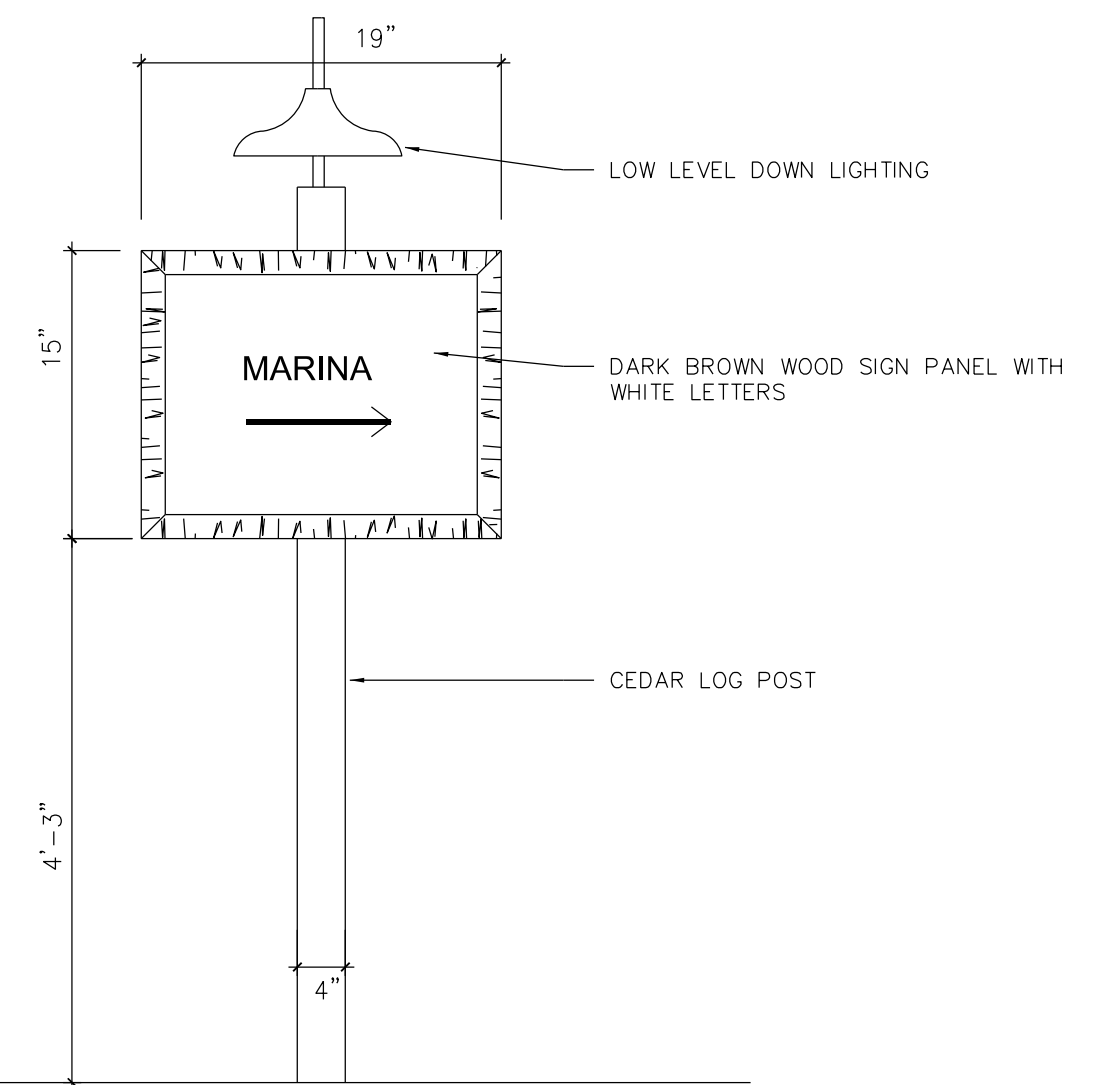


- NOTES:**
- SIGNAGE SHALL BE IN CONFORMANCE WITH TOWN STANDARDS.
 - COLORS WILL BE NATURAL COLORS SUCH AS BROWNS, GREENS ETC.
 - IF DESIRED, SIGN SHALL BE ILLUMINATED BY ARM-MOUNTED DOWN LIGHTING WITH FIXTURE SIMILAR TO THE "W527" MANUFACTURED BY "AMERICAN NAIL PLATE LIGHTING", WITH 70 WATT LAMPING. FIXTURE PLACEMENT SHALL TYPICALLY BE AS SHOWN.

1 ENTRY SIGN - ANNEX SCALE: NTS

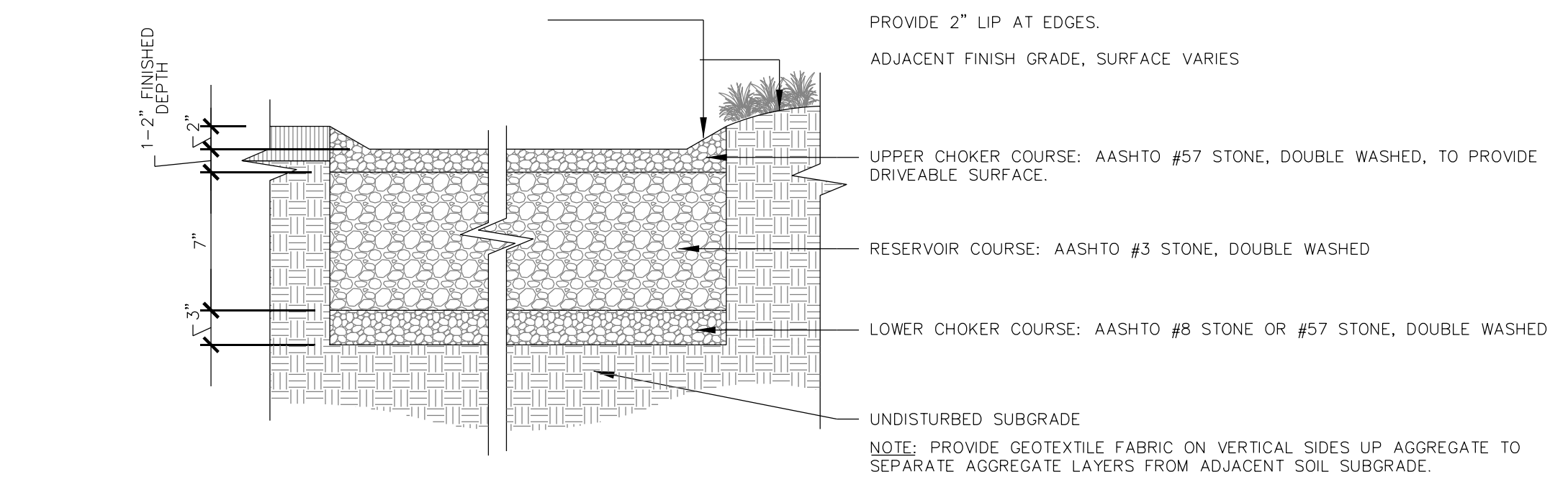


2 EXISTING SIGN - MAIN MARINA SCALE: NTS

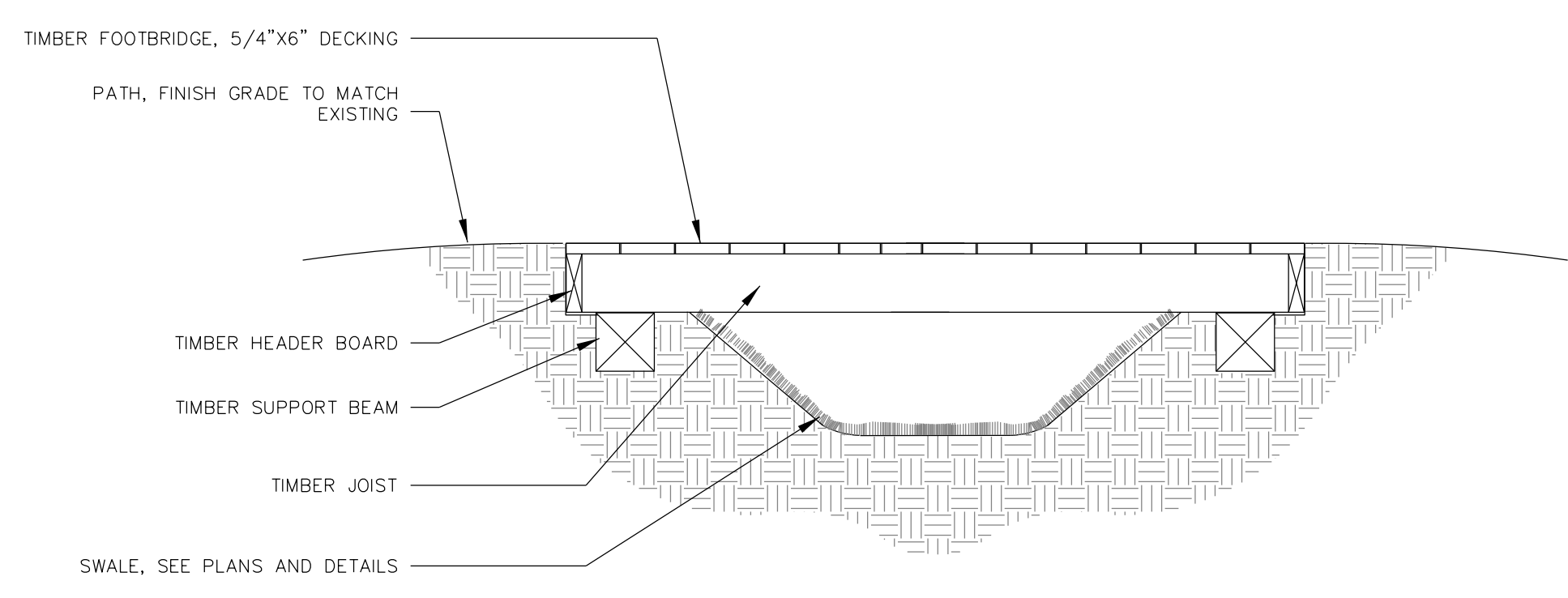


- NOTES:**
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 - COLORS WILL BE NATURAL COLORS SUCH AS BROWNS, GREENS ETC.
 - IF DESIRED, SIGN SHALL BE ILLUMINATED BY ARM-MOUNTED DOWN LIGHTING WITH FIXTURE SIMILAR TO THE "W527" MANUFACTURED BY "AMERICAN NAIL PLATE LIGHTING", WITH 70 WATT LAMPING. FIXTURE PLACEMENT SHALL TYPICALLY BE AS SHOWN.

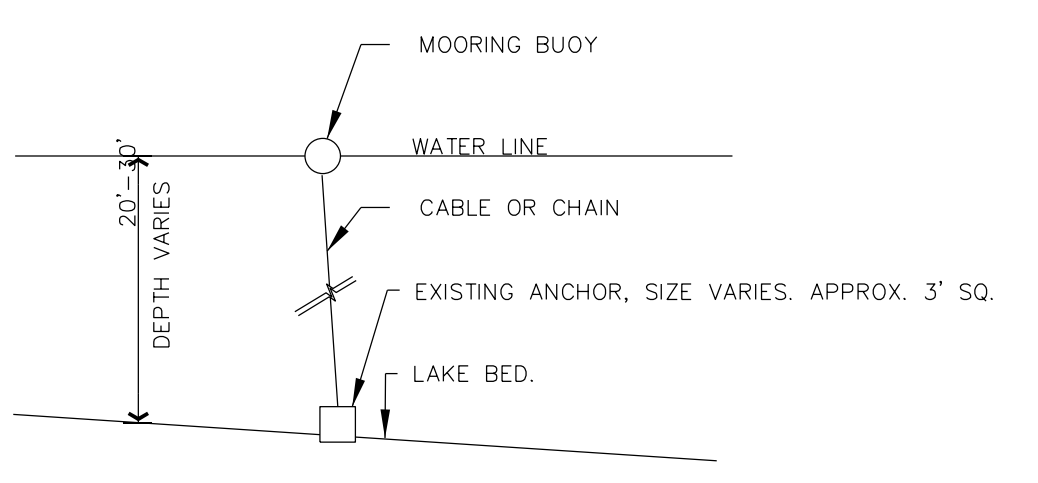
3 DIRECTIONAL SIGN - ANNEX SCALE: NTS



4 BOAT WASH PAD SCALE: NTS



5 TIMBER FOOT BRIDGE SCALE: NTS



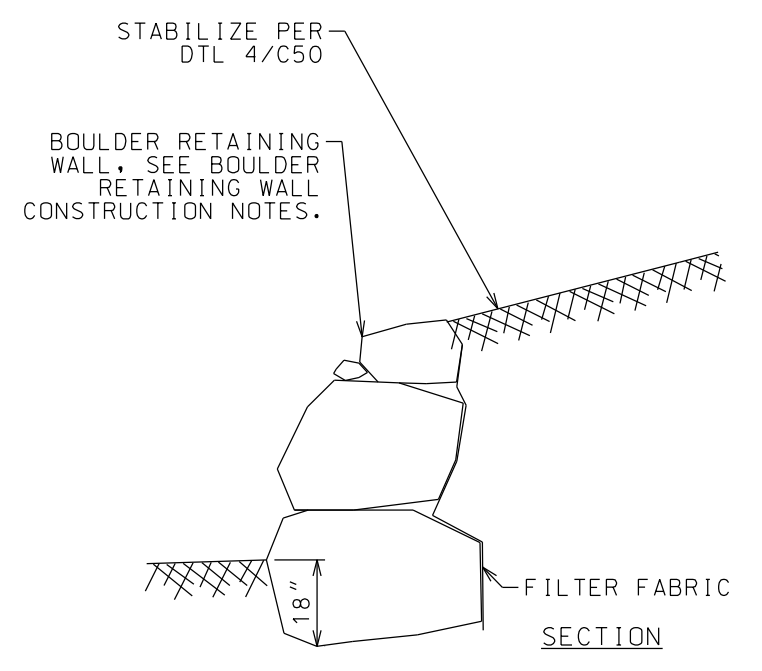
6 BUOY ANCHOR SCALE: NTS

BOULDER RETAINING WALL CONSTRUCTION NOTES:

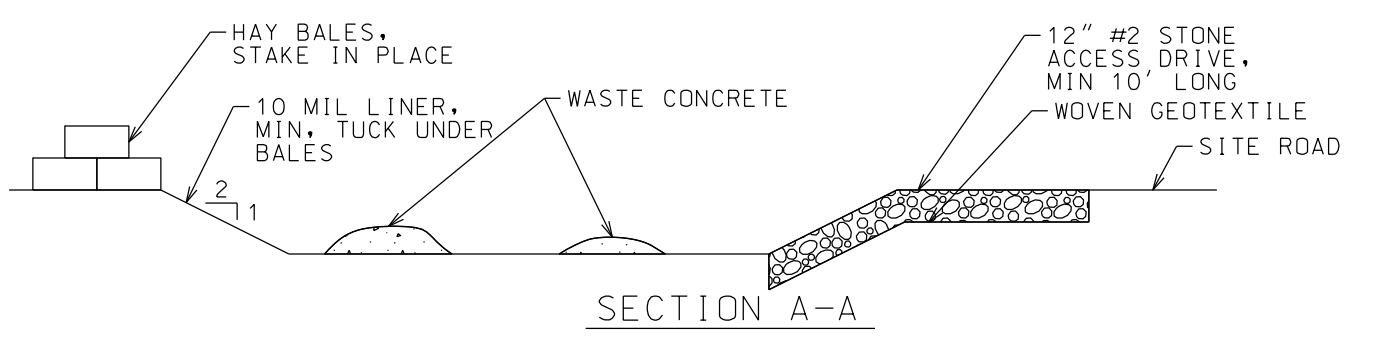
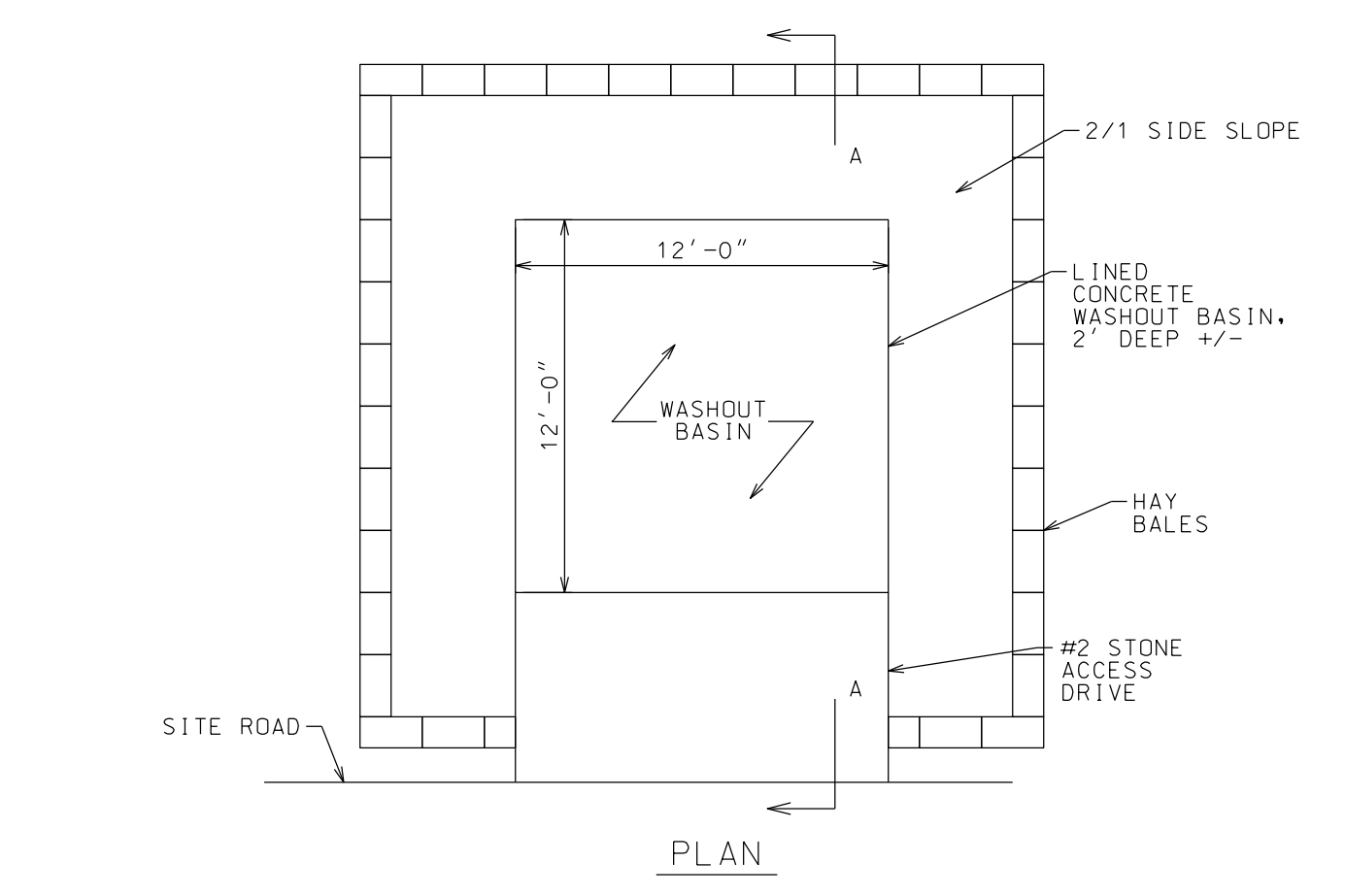
- ROCKS FOR BOTTOM COURSE OF WALL SHALL BE 1 1/2 CY MIN, 2 CY PREFERRED. SUCCESSIVE COURSES SHALL BE 1/2 CY MIN. SEDIMENTARY ROCKS SHALL NOT BE USED.
- BEFORE PLACING BOTTOM COURSE, REMOVE ANY ORGANIC MATERIAL AND COMPACT SOIL WITH A VIBRATORY PLATE TO THE SATISFACTION OF THE ONSITE INSPECTOR. SET BOTTOM COURSE 18" BELOW GRADE ON LOW SIDE.
- PLACE UNCLASSIFIED BACKFILL IN 12" LIFTS AND COMPACT WITH A VIBRATORY PLATE TO THE SATISFACTION OF THE ONSITE INSPECTOR. COMPACT FILL BEHIND AND ON TOP OF ROCKS BEFORE PLACING NEXT COURSE. BATTER ROCKS INTO SLOPE WITH EACH SUCCESSIVE COURSE.
- KEEP FILL MATERIAL AT JOINTS TO A MINIMUM. IF DIRECTED BY THE ENGINEER, MIX JOINT FILL WITH CEMENT OR MORTAR FOR BETTER ADHESION AND EROSION CONTROL.
- ALL COURSES SHALL BE LAID WITH BEARING BEDS PARALLEL TO THE NATURAL BED OF THE ROCKS.
- PLACE APPROVED FILTER FABRIC BEHIND ROCKS TO PREVENT FILL EROSION.

BACKFILL DEFINITIONS:

- UNCLASSIFIED BACKFILL BEHIND ROCKS WILL BE A BANK MATERIAL, FREE FROM FRIABLE OR SOLUBLE MATERIAL, AND EXCESSIVE ORGANIC MATTER, CAPABLE OF GROWING GRASS & GRADED TO THE FOLLOWING LIMITS:
 6 INCH+ 100% PASSING BY WEIGHT
 #200, 0-15% PASSING BY WEIGHT
- UNCLASSIFIED BACKFILL TO BE COMPACTED IN LIFTS OF NO MORE THAN 12". COMPACTON SHALL BE WITH A VIBRATORY PLATE AND COMPLETED TO THE SATISFACTION OF THE ONSITE INSPECTOR.



7 BOULDER RETAINING WALL SCALE: NTS

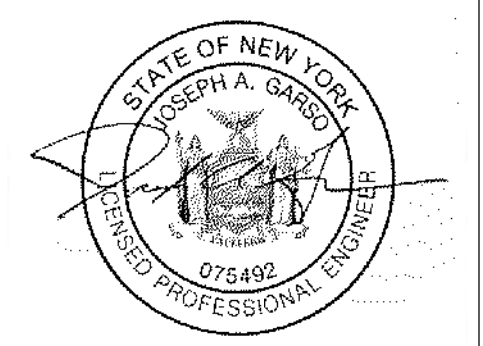


- NOTES:**
- LOCATE MIN 100' FROM WETLANDS, STREAMS, STORM DRAINS, SWALES, ETC.
 - GRADE SURROUNDING AREA TO PREVENT SURFACE WATER FROM ENTERING.
 - DAMAGED OR LEAKING FACILITY SHALL BE DEACTIVATED AND REPAIRED OR REPLACED IMMEDIATELY.
 - EXCESS RAINWATER OVER HARDENED CONCRETE SHALL BE PUMPED TO STABILIZED AREA.
 - ACCUMULATED HARDENED MATERIAL SHALL BE REMOVED WHEN BASIN 75% FULL.
 - DISPOSE OF HARDENED MATERIAL OFF-SITE AT C&D LANDFILL.
 - REPLACE PLASTIC LINER WITH EACH CLEANING OF BASIN.
 - UPON COMPLETION OF CONCRETE ACTIVITIES, REMOVE BASIN AND RESTORE AREA.
 - BASIN SHALL BE LOCATED IN STAGING AND STOCKPILE AREAS, OR AS DIRECTED BY OWNER.

8 CONCRETE WASHOUT BASIN NTS

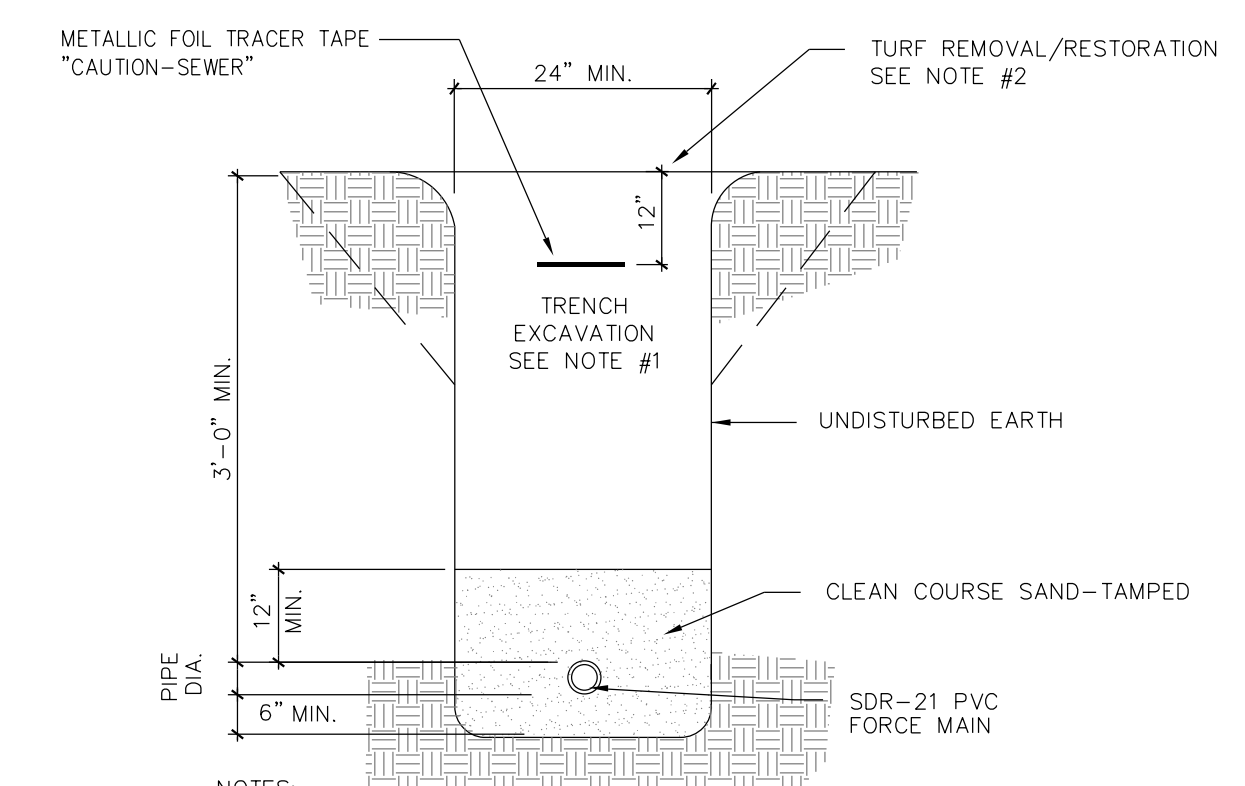
WINTER STABILIZATION NOTES

- WINTER STABILIZATION SHALL BE REQUIRED FOR ALL CONSTRUCTION ACTIVITIES INVOLVED WITH ONGOING LAND DISTURBANCE AND EXPOSURE BETWEEN NOVEMBER 15TH TO THE FOLLOWING APRIL 1ST.
- CONTRACTOR SHALL PREPARE A SNOW MANAGEMENT PLAN WITH ADEQUATE STORAGE FOR SNOW AND CONTROL OF MELT WATER, REQUIRING CLEARED SNOW TO BE STORED IN A MANNER NOT AFFECTING ONGOING CONSTRUCTION ACTIVITIES.
- ENLARGE AND STABILIZE ACCESS POINTS TO PROVIDE FOR SNOW MANAGEMENT AND STOCKPILING. SNOW MANAGEMENT ACTIVITIES MUST NOT DESTROY OR DEGRADE INSTALLED EROSION AND SEDIMENT CONTROL PRACTICES.
- A MINIMUM 25 FOOT BUFFER SHALL BE MAINTAINED FROM ALL PERIMETER CONTROLS SUCH AS SILT FENCE. MARK SILT FENCE WITH TALL STAKES THAT ARE VISIBLE ABOVE THE SNOW PACK.
- EDGES OF DISTURBED AREAS THAT DRAIN TO A WATERBODY WITHIN 100 FEET SHALL HAVE 2 ROWS OF SILT FENCE, 5 FEET APART, INSTALLED ON THE CONTOUR.
- DRAINAGE STRUCTURES MUST BE KEPT OPEN AND FREE OF SNOW AND ICE DAMS. ALL DEBRIS, ICE DAMS, OR DEBRIS FROM PLOWING OPERATIONS, THAT RESTRICT THE FLOW OF RUNOFF AND MELT WATER, SHALL BE REMOVED.
- SEDIMENT BARRIERS MUST BE INSTALLED AT ALL APPROPRIATE PERIMETER AND SENSITIVE LOCATIONS. SILT FENCE AND OTHER PRACTICES REQUIRING EARTH DISTURBANCE MUST BE INSTALLED BEFORE THE GROUND FREEZES.
- SOIL STOCKPILES MUST BE PROTECTED BY THE USE OF ESTABLISHED VEGETATION, ANCHORED STRAW MULCH, ROLLED STABILIZATION MATTING, OR OTHER DURABLE COVERING. A BARRIER MUST BE INSTALLED AT LEAST 15 FEET FROM THE TOE OF THE STOCKPILE TO PREVENT SOIL MIGRATION AND TO CAPTURE LOOSE SOIL.
- IN AREAS WHERE SOIL DISTURBANCE ACTIVITY HAS TEMPORARILY OR PERMANENTLY CEASED, THE APPLICATION OF SOIL STABILIZATION MEASURES SHALL BE INITIATED BY THE END OF THE NEXT BUSINESS DAY AND COMPLETED WITHIN THREE (3) DAYS. ROLLED EROSION CONTROL BLANKETS MUST BE USED ON ALL SLOPES 3 HORIZONTAL TO 1 VERTICAL OR STEEPER.
- IF STRAW MULCH ALONE IS USED FOR TEMPORARY STABILIZATION, IT SHALL BE APPLIED AT DOUBLE THE STANDARD RATE OF 2 TONS PER ACRE, MAKING THE APPLICATION RATE 4 TONS PER ACRE. OTHER MANUFACTURED MULCHES SHALL BE APPLIED AT DOUBLE THE MANUFACTURER'S RECOMMENDED RATE.
- TO ENSURE ADEQUATE STABILIZATION OF DISTURBED SOIL IN ADVANCE OF A MELT EVENT, AREAS OF DISTURBED SOIL SHALL BE STABILIZED AT THE END OF EACH WORK DAY UNLESS:
 A. WORK WILL RESUME WITHIN 24 HOURS IN THE SAME AREA AND NO PRECIPITATION IS FORECAST OR;
 B. THE WORK IS IN DISTURBED AREAS THAT COLLECT AND RETAIN RUNOFF, SUCH AS OPEN UTILITY TRENCHES, FOUNDATION EXCAVATIONS, OR WATER MANAGEMENT AREAS.
- USE STONE PATHS TO STABILIZE ACCESS PERIMETERS OF BUILDINGS UNDER CONSTRUCTION AND AREAS WHERE CONSTRUCTION VEHICLE TRAFFIC IS ANTICIPATED. STONE PATHS SHALL BE A MINIMUM 10 FEET IN WIDTH BUT WIDER AS NECESSARY TO ACCOMMODATE EQUIPMENT.



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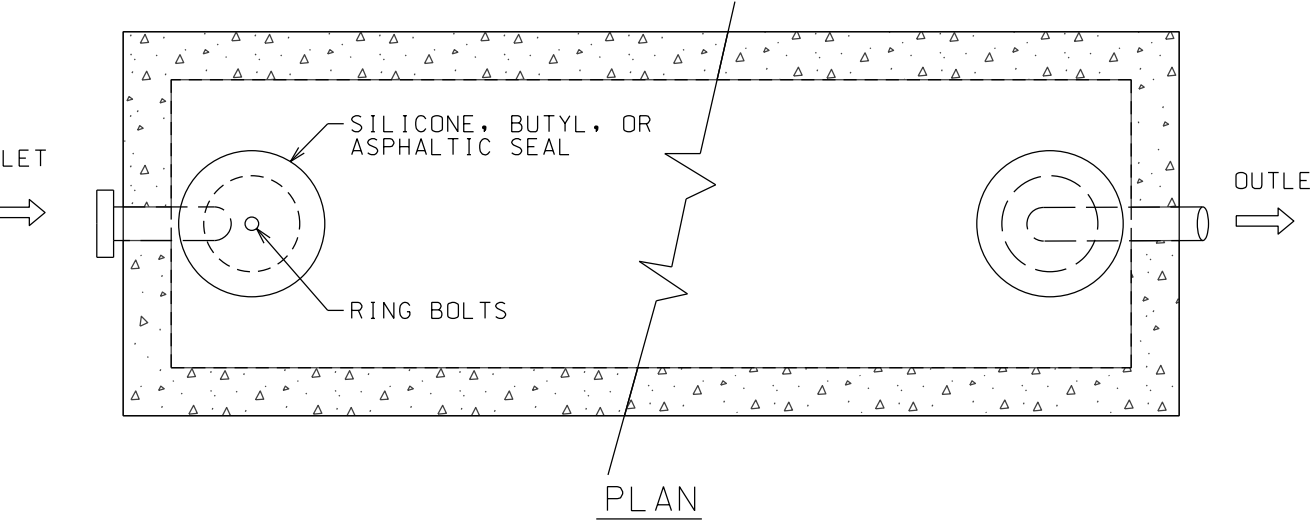
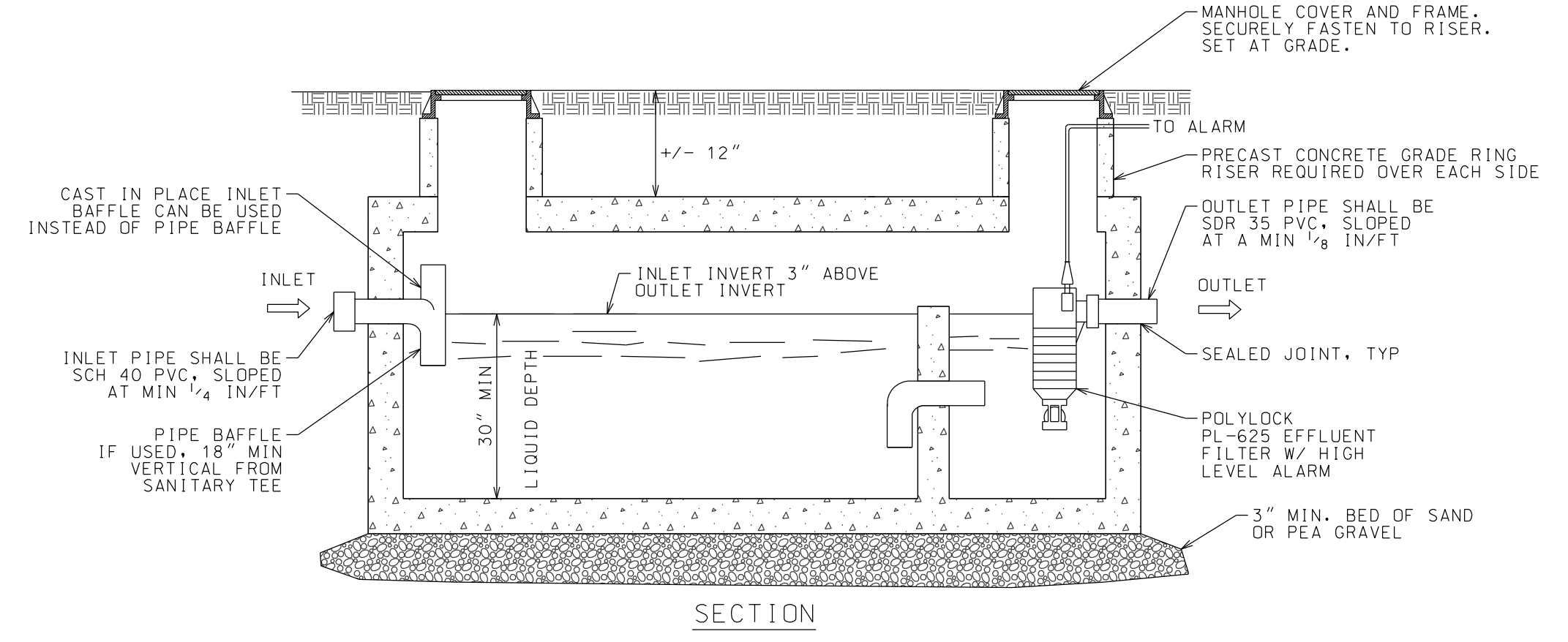
L.S. MARINA, LLC
SARANAC LAKE MARINA



- NOTES:
- 1. THE EXCAVATED TRENCH MATERIAL SHALL BE DEPOSITED AT THE SIDES OF THE TRENCHES AND USED FOR BACKFILL UNLESS DECLARED TO BE UNSUITABLE. UNSUITABLE EXCAVATED MATERIAL SUCH AS PEAT, MUCK, ROCK, ETC. SHALL BE REMOVED FROM THE SITE.
 - 2. THE EXISTING TOPSOIL SHALL BE CAREFULLY REMOVED AND CAST ASIDE IN SEPARATE PILES TO BE USED FOR TURF RESTORATION.

1 FORCE MAIN TRENCH DETAIL

SCALE: NTS

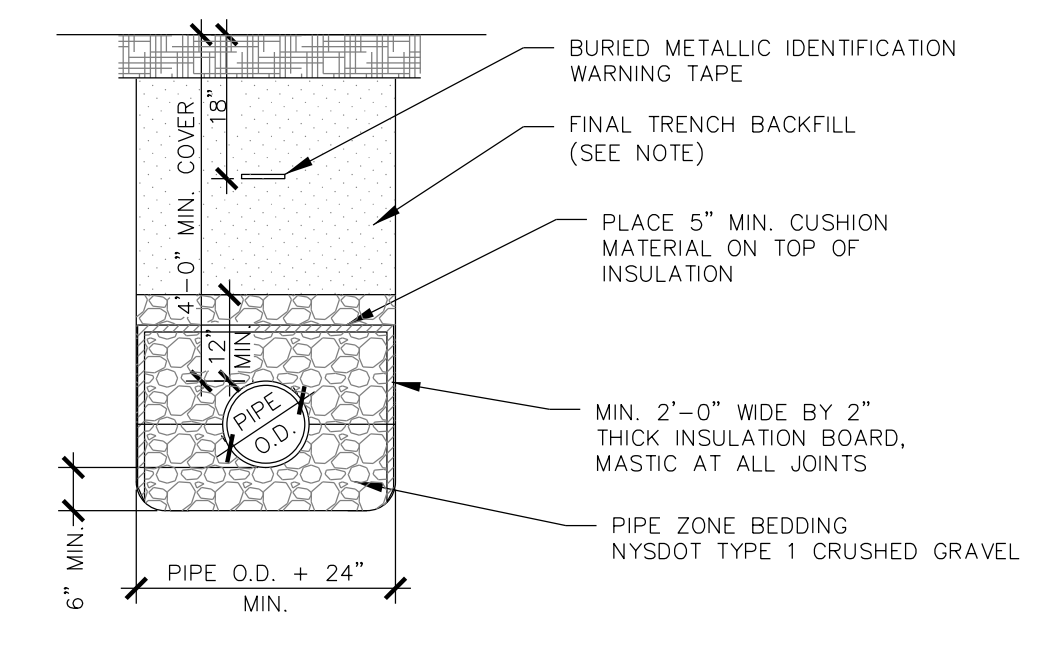


- NOTES:
1. MIN OF 6" WALL THICKNESS FOR CAST-IN-PLACE CONCRETE.
 2. MIN TOTAL CAPACITY AS SHOWN ON PROJECT PLANS. SINGLE COMPARTMENT TANKS IN SERIES MAY BE INSTALLED AS AN ALTERNATE TO ONE DUAL COMPARTMENT TANK.
 3. DUAL COMPARTMENT TANKS ARE REQUIRED ON ALL TANKS WITH AN INTERIOR LENGTH OF 10 FT OR MORE.
 4. THE FIRST COMPARTMENT OR TANK (INLET SIDE) SHALL ACCOUNT FOR 60-75% OF THE REQUIRED TOTAL DESIGN VOLUME.
 5. THE BAFFLE SEPARATING THE COMPARTMENTS SHALL EXTEND FROM THE BOTTOM OF THE TANK TO AT LEAST 6 INCH ABOVE THE INVERT OF THE OUTLET PIPE.
 6. COMPARTMENTS SHALL BE CONNECTED BY A 4 INCH VERTICAL SLOT AT LEAST 18 INCHES IN WIDTH, A 6 INCH ELBOW, OR TWO 4 INCH ELBOWS LOCATED AT A DISTANCE BELOW THE LIQUID LEVEL EQUAL TO ONE-THIRD THE DISTANCE BETWEEN THE INVERT OF THE OUTLET AND THE BOTTOM OF THE TANK.
 7. AT LEAST ONE ACCESS MANHOLE SHALL BE PROVIDED INTO EACH COMPARTMENT.
 8. TANKS IN SERIES SHALL BE CONNECTED BY A SINGLE PIPE WITH A MIN DIAMETER OF 4 INCHES.
 9. TANK COVERS SHALL ALWAYS BE ACCESSIBLE. WHERE MANHOLES ARE MORE THAN 12 INCHES BELOW FINAL GRADE, AN EXTENSION COLLAR SHALL BE PROVIDED OVER EACH OPENING. EXTENSION COLLARS SHALL NOT BE BROUGHT FLUSH WITH THE GROUND SURFACE UNLESS THE COVER CAN BE LOCKED TO PREVENT TAMPERING.

4 DUAL COMPARTMENT SEPTIC TANK

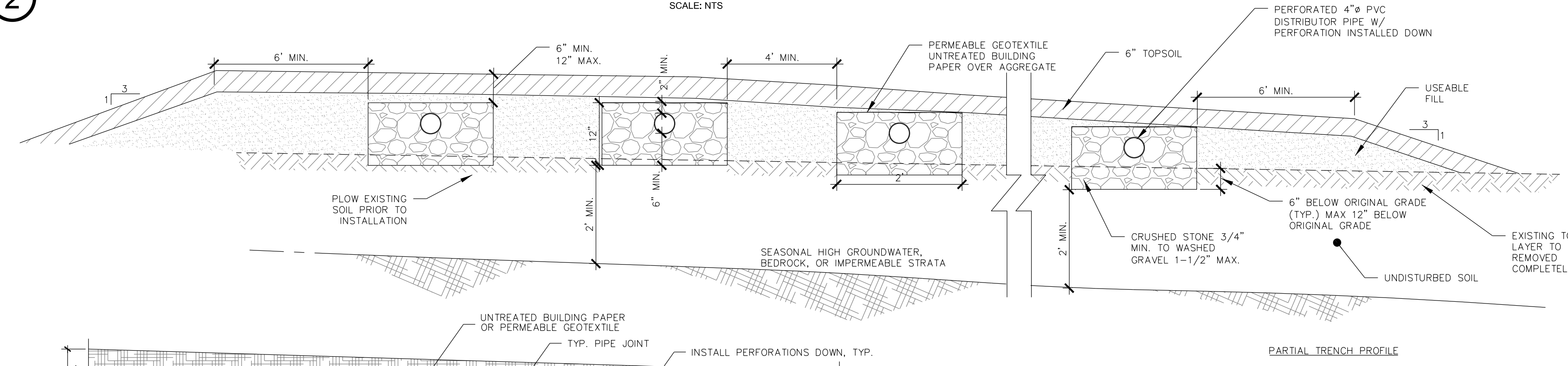
SCALE: NTS

- NOTES:
1. FINAL TRENCH BACKFILL
 - a. IN NON-PAVED AREAS, FINAL TRENCH BACKFILL SHALL BE EXCAVATED MATERIAL WHEN DETERMINED SUITABLE BY THE ENGINEER OF RECORD; OTHERWISE IT SHALL BE NYS DOT TYPE 1 (ITEM NO. 304.02). MIN. MOD. PROCTOR DENSITY SHALL BE 85 PERCENT.
 - b. IN PAVED AREAS, FINAL TRENCH BACKFILL SHALL BE NYS DOT TYPE 1 (ITEM NO. 304.02). MIN. MODIFIED PROCTOR DENSITY SHALL BE 95 PERCENT.
 2. ALL PIPE ZONE BEDDING, PIPE ZONE BACKFILL, AND FINAL TRENCH BACKFILL SHALL BE PLACED IN 6 INCH MAX. COMPACTED LIFTS. ALL BEDDING AND BACKFILL MATERIALS SHALL BE MECHANICALLY COMPACTED TO THE SATISFACTION OF THE ENGINEER.
 3. EXCAVATION SHALL BE KEPT DRY AND DEWATERED AT ALL TIMES.
 4. PROVIDE INSULATION WHEREVER COVER IS LESS THAN 4'.



2 PIPE TRENCH DETAIL

SCALE: NTS

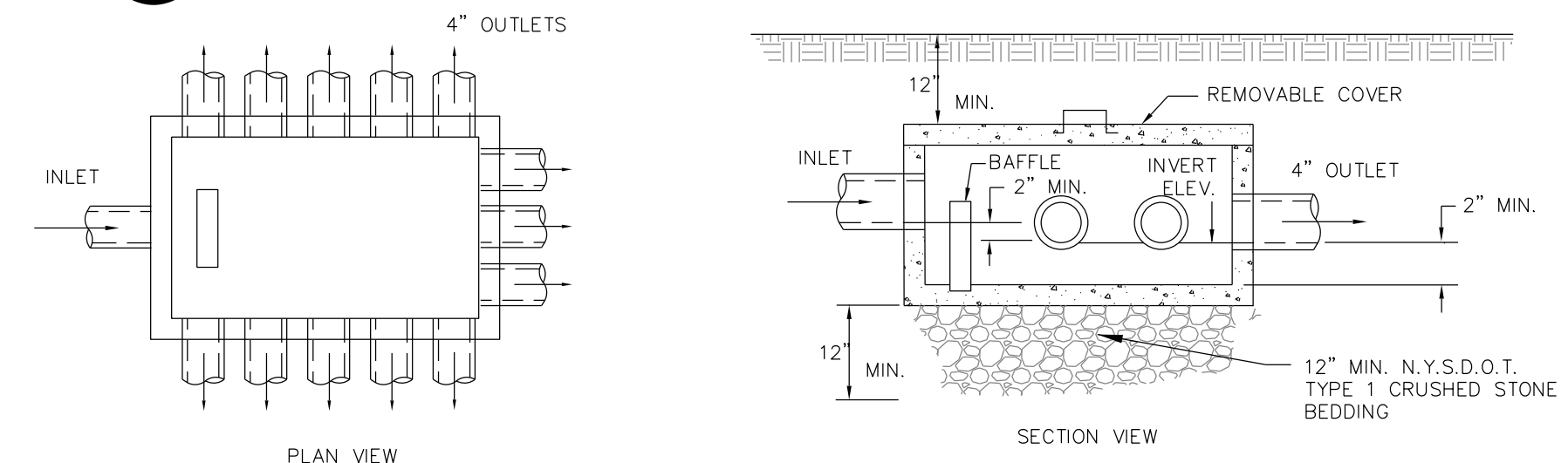


- NOTE:
1. DO NOT INSTALL ABSORPTION TRENCHES IN WET SOIL.
 2. RAKE SIDES AND BOTTOM OF TRENCH PRIOR TO PLACING CRUSHED STONE/GRAVEL.
 3. INSTALL SOLID END CAPS AT ENDS OF ALL DISTRIBUTOR PIPES.
 4. BACKFILL MATERIAL SHALL NOT CONTAIN STONES OR COBBLES LARGER THAN 2" DIAMETER.
 5. BOTTOM OF ALL TRENCHES SHALL NOT BE ABOVE ORIGINAL USEABLE SOIL.
 6. USEABLE FILL SHALL HAVE A PERCOLATION RATE OF APPROXIMATELY 16 MIN/INCH.
 7. TRENCH BOTTOMS SHALL BE LEVEL AND PARALLEL TO GROUND CONTOURS.
 8. A DIVERSION DITCH SHALL BE CONSTRUCTED UPHILL FROM THE FILL TO PREVENT SURFACE RUNOFF FROM ENTERING THE FILL.
 9. HEAVY EQUIPMENT SHALL BE KEPT OUT OF THE ABSORPTION AREA.
 10. TOPSOIL LAYER SHALL BE COMPLETELY REMOVED AND EXISTING SOIL PLOWED THOROUGHLY.

3 SHALLOW ABSORPTION TRENCH DETAILS

SCALE: NTS

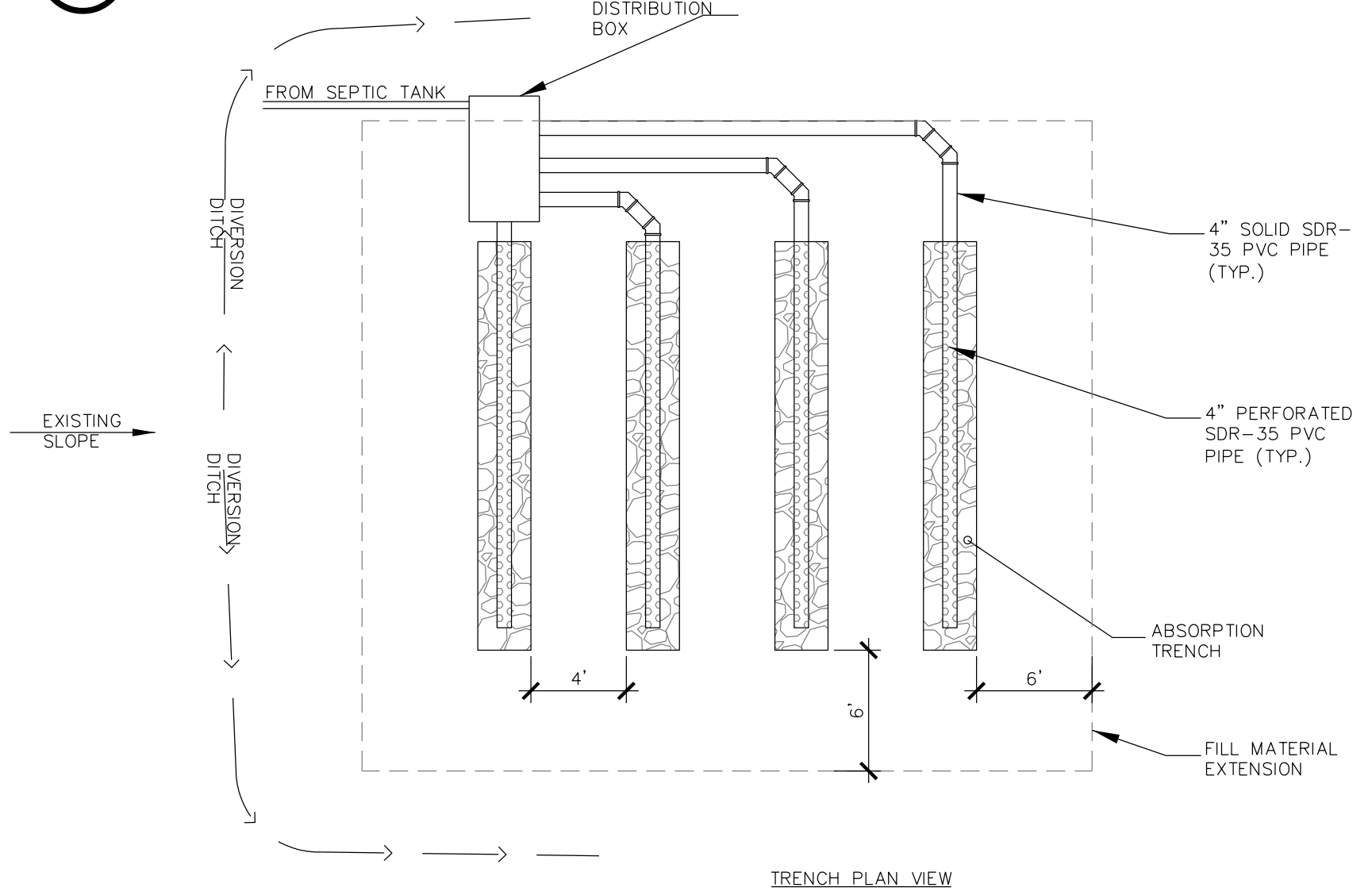
5 NOT USED



- PLAN VIEW NOTES:
1. PIPE JOINTS TO BE SEALED WITH ASPHALTIC MATERIAL OR EQUIVALENT.
 2. INVERT ELEVATIONS OF ALL OUTLET PIPES MUST BE EQUAL. USE OF SPEED LEVELING DEVICES IS RECOMMENDED.
 3. THE SLOPE OF OUTLET PIPES BETWEEN THE DISTRIBUTION BOX AND DISTRIBUTOR LATERALS SHOULD BE AT LEAST 1/32" PER FOOT.
 4. BAFFLE REQUIRED IF INLET PIPE SLOPE EXCEEDS 1/2" PER FOOT.

6 D-13 DISTRIBUTION BOX

SCALE: NTS



PROJECT NAME

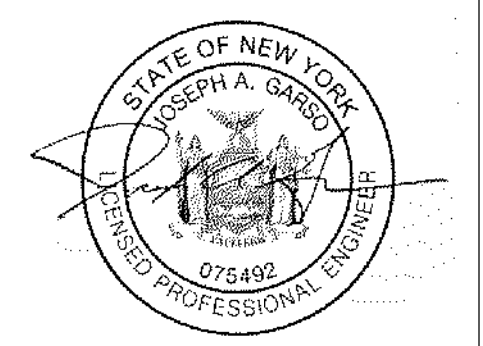
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DRAWN BY: BMD/KMR
 CHECKED BY: JA GARSO
 PROJECT #: 19-061
 ORIGINAL 24"x36"

TITLE
UTILITY DETAILS

SHEET
C53



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SARANAC LAKE MARINA

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NO. OF BEDROOMS:	4	
DESIGN FLOW:	110 GPD/BR	(NYSDOH APP 75-A)
	440 GPD	
SEPTIC TANK:	1250 GALLONS	
OFFICE		
NO. OF EMPLOYEES	11	
DESIGN FLOW	15 GPD/EMPLOYEE	(NYSDEC INT. SIZED WASTEWATER SANDARDS)
	165 GPD	
SEPTIC TANK:	1000 GALLONS	
MAINT. GARAGE	1	
DESIGN FLOW	15 GPD/EMPLOYEE	(NYSDEC INT. SIZED WASTEWATER SANDARDS)
	15 GPD	

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 CHECKED BY: JA GARSO
 PROJECT #: 19-061
 ORIGINAL 24"x36"

TITLE

UTILITY DETAILS

SHEET

C54

UTILITY NOTES

PRESSURE SEWER INSTALLATION NOTES:

1. THE DEVELOPER SHALL BE RESPONSIBLE FOR CONSTRUCTION OF THE PROPOSED PRESSURE SEWER SYSTEM AS SHOWN ON THESE PLANS.
2. ALL VALVE BOXES ARE TO BE BROUGHT TO GRADE, FLUSH IN PAVEMENT, +0.1 FEET IN GRASSED AREAS.
3. ALL TEES AND BENDS TO HAVE A SOLID CONCRETE BLOCK (4"x8"x12") FOR THRUST RESTRAINT.

PUMP STATION NOTES:

1. PUMPS
 - 1.1. PROVIDE VERTICAL, SUBMERSIBLE, WASTEWATER EFFLUENT PUMPS HAVING CAPACITY AS SHOWN OR INDICATED.
 - 1.2. PROVIDE IMPELLERS, SINGLE VANE TYPE, OF REQUIRED DIAMETER AND BALANCED BOTH STATICALLY AND DYNAMICALLY.
 - 1.3. PROVIDE OPENINGS, INTERNAL PASSAGES, AND INTERNAL RECIRCULATION PORTS LARGE ENOUGH TO PERMIT PASSAGE OF 3/4" DIAMETER SOLIDS.
2. PUMP MOTORS
 - 2.1. PROVIDE VERTICAL MOTORS, CLOSE-COUPLED TO PUMP. THERMAL OVERLOAD PROTECTION OVER ENTIRE OPERATING RANGE
3. PUMP CHAMBER
 - 3.1. PROVIDE A PRECAST H2O RATED CONCRETE PUMP CHAMBER AS INDICATED.
 - 3.2. CONSTRUCT PIPE, FITTINGS, AND VALVES WITHIN PUMP CHAMBER OF SCH 80 PVC, AND PROVIDE JOINTS TO FIELD CONNECTIONS.
4. CONTROLS
 - 4.1. CONTROL ON-OFF CYCLE OF EACH PUMP AUTOMATICALLY, IN ACCORDANCE WITH FLOW REQUIREMENTS, WITH A FLOAT SWITCH CONTROL SYSTEM. THE LEVEL CONTROL SYSTEM SHALL BE INTRINSICALLY SAFE OR EXPLOSION PROOF. PROVIDE AUTOMATIC CONTROL TO OPERATE BOTH PUMPS IN PARALLEL, IF WET WELL LEVEL RISES ABOVE STARTING POINT OF LOW LEVEL PUMP; WITH BOTH PUMPS OPERATING UNTIL SHUTOFF LEVEL IS REACHED. PROVIDE AUTOMATIC ALTERNATOR, WITH MANUAL DISCONNECT SWITCH, TO CHANGE SEQUENCE OF LEAD-LAG PUMPS AT COMPLETION OF EACH PUMPING CYCLE. PROVIDE MAGNETIC ACROSS-THE-LINE STARTERS WITH UNDER-VOLTAGE RELEASE, THERMAL OVER-LOAD HEATER COILS IN EACH PHASE, MANUAL RESET BUTTONS, AND HANDS-OFF-AUTOMATIC SELECTOR SWITCHES TO CONTROL OPERATION OF EACH PUMP. PROVIDE CIRCUIT BREAKERS TO PROVIDE PROTECTION FOR EACH STARTER, WITH ACCESSIBLE CONTROL FROM PANEL FACE WITHOUT OPENING COVER.
 - 4.2. PROVIDE 110-VOLT ACCESSORY CONTROLS WITH 15-AMP SINGLE PHASE CIRCUIT BREAKERS FOR EACH ITEM; WITH ACCESSIBLE CONTROL FROM PANEL FACE WITHOUT OPENING COVER.
 - 4.3. PROVIDE CONTROL PANEL, NEMA TYPE 4 ENCLOSURE, WITH SEPARATE COMPARTMENTS AND COVERS FOR STARTERS AND BREAKERS, TRANSFORMER, ALTERNATOR, AND SINGLE PHASE CONTROLS. PROVIDE LABELS ON PANEL FACE TO IDENTIFY SWITCHES AND CONTROLS.
 - 4.4. ACCESSORIES
 - 5.1. VENTILATION - PROVIDE A 4" MINIMUM DIAMETER VENT WITH RETURN BEND AND BIRD SCREEN.
 - 5.2. HIGH-WATER AUDIO ALARM - PROVIDE HIGH-WATER ALARM HORN TO GIVE AUDIO INDICATION OF STATION HIGH-WATER LEVEL, ENERGIZING BY SEPARATE LEVEL-DETECTING DEVICE. PROVIDE ALARM SILENCER SWITCH AND RELAY IN STATION.
 - 5.3. ELAPSED TIME METER TO RECORD TOTAL PUMP RUN TIME.
 - 5.4. REMOTE ALARM CIRCUIT - PROVIDE ALARM CONTACT FOR CONNECTION TO REMOTE ALARM PANEL TO INDICATE HIGH WATER IN STATION.
 - 5.5. CONNECTION FOR PORTABLE GENERATOR - PROVIDE MANUAL TRANSFER SWITCH WITH PORTABLE GENERATOR PLUG, TO PERMIT OPERATION OF PUMP STATION WITH PORTABLE ELECTRIC GENERATOR.

SEPTIC SYSTEM CONSTRUCTION NOTES:

1. HEAVY CONSTRUCTION EQUIPMENT SHALL NOT BE ALLOWED WITHIN THE SEPTIC DISPOSAL AREA.
2. THE SEPTIC TANK SHALL BE PRE-CAST CONCRETE AS MANUFACTURED BY THE FORT MILLER CO. OR EQUIVALENT.
3. SEPTIC TANK TO BE SET LEVEL ON 12" LAYER OF COMPACTED GRAVEL OR STONE.
4. SEPTIC TANK TO HAVE SCH 40 PVC "1" AT INLET AND OUTLET.
 - INLET 16" BELOW FLOW LINE, 6" ABOVE FLOW LINE.
 - OUTLET 18" BELOW FLOW LINE, 6" ABOVE FLOW LINE.
 - 3" AIR SPACE ABOVE TEE TO TOP OF TANK.
5. BUILDING TO SEPTIC TANK: 4" PVC SDR-35 PIPE WITH TIGHT JOINTS, MINIMUM SLOPE = 1/8" PER FOOT.
6. SEPTIC TANK TO PUMP CHAMBER: 4" PVC SCHEDULE 40 PIPE, TIGHT JOINTS, MIN. SLOPE = 1/8" PER FOOT.
7. SANITARY DISPOSAL FIELD: 1" PERFORATED PLASTIC PIPE, INSTALLED LEVEL, AND CAP ALL ENDS.
8. A PERMEABLE GEOTEXTILE OR UNTREATED BUILDING PAPER OR STRAW SHALL BE PLACED OVER THE ABSORPTION AREA TO PREVENT THE INFILTRATION OF FINES INTO THE AGGREGATE.
9. A MINIMUM OF SIX INCHES OF FILL SHALL BE PLACED OVER THE TOP OF THE ABSORPTION AREA, TAKING CARE NOT TO DRIVE OVER THE DISTRIBUTION TRENCHES. THE ENTIRE ABSORPTION AREA SHALL BE COVERED WITH TOP SOIL AND SEEDED TO GRASS.
10. NOTIFY ENGINEER PRIOR TO INSTALLATION OF THE SYSTEM TO REVIEW INSTALLATION AND INSPECTION PROCEDURES.
11. NO ROOF, FOOTING, FLOOR, COOLING WATER, BACKWASH DRAINS, ETC., SHALL BE CONNECTED TO THE SEWAGE SYSTEM.
12. THERE SHALL BE NO CONSTRUCTION OF SANITARY FACILITIES (SEPTIC SYSTEM) WITHIN 100' OF A CLASSIFIED BODY OF WATER.

SEWER SYSTEM NOTES:

1. MANHOLE FRAMES AND COVERS SHALL BE EJ#132221 OR APPROVED EQUAL. THE COVER SHALL BE EMBOSSED WITH "SANITARY SEWER". PROVIDE (4) 3/8" DIA. VENT HOLES IN COVER.
2. ALL SEWER PIPING AND FITTINGS SHALL CONFORM TO THE STANDARD SPECIFICATIONS FOR PVC PIPE, ASTM DESIGNATION D-3034-78 OR LATEST REVISION AND TO THE DIMENSIONS AND TOLERANCES OF CLASSIFICATION SDR-35 WITH SINGLE GASKET PUSH-ON JOINTS.
3. PRODUCT DATA INFORMATION AND SHOP DRAWINGS FOR MATERIALS PROPOSED FOR USE BY THE CONTRACTOR SHALL BE SUBMITTED TO AND APPROVED BY THE ENGINEER PRIOR TO THE PLACEMENT OF ANY ORDERS FOR SAID MATERIALS.
4. LEAKAGE OUTWARD OR INWARD SHALL NOT EXCEED 200 GALLONS PER INCH OF PIPE DIAMETER PER MILE PER DAY FOR ANY SECTION OF THE SYSTEM. LEAKAGE TEST SHALL BE PERFORMED WITH A MINIMUM POSITIVE HEAD OF 2 FEET.

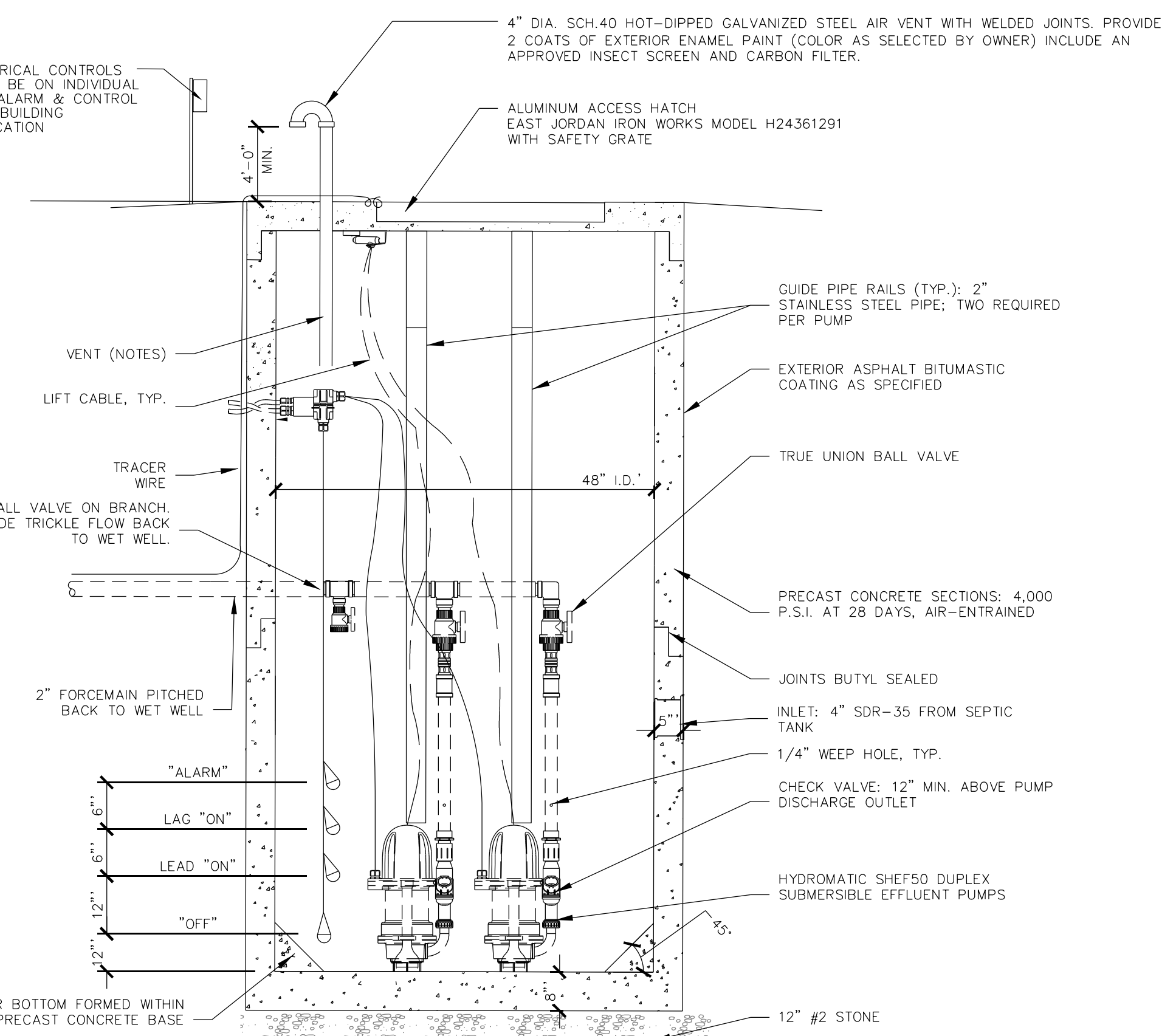
BASIS OF DESIGN

SINGLE FAMILY HOME:

NO. OF BEDROOMS:	4	
DESIGN FLOW:	110 GPD/BR	(NYSDOH APP 75-A)
	440 GPD	
SEPTIC TANK:	1250 GALLONS	
OFFICE		
NO. OF EMPLOYEES	11	
DESIGN FLOW	15 GPD/EMPLOYEE	(NYSDEC INT. SIZED WASTEWATER SANDARDS)
	165 GPD	
SEPTIC TANK:	1000 GALLONS	
MAINT. GARAGE	1	
DESIGN FLOW	15 GPD/EMPLOYEE	(NYSDEC INT. SIZED WASTEWATER SANDARDS)
	15 GPD	

ABSORPTION TRENCH SIZING:

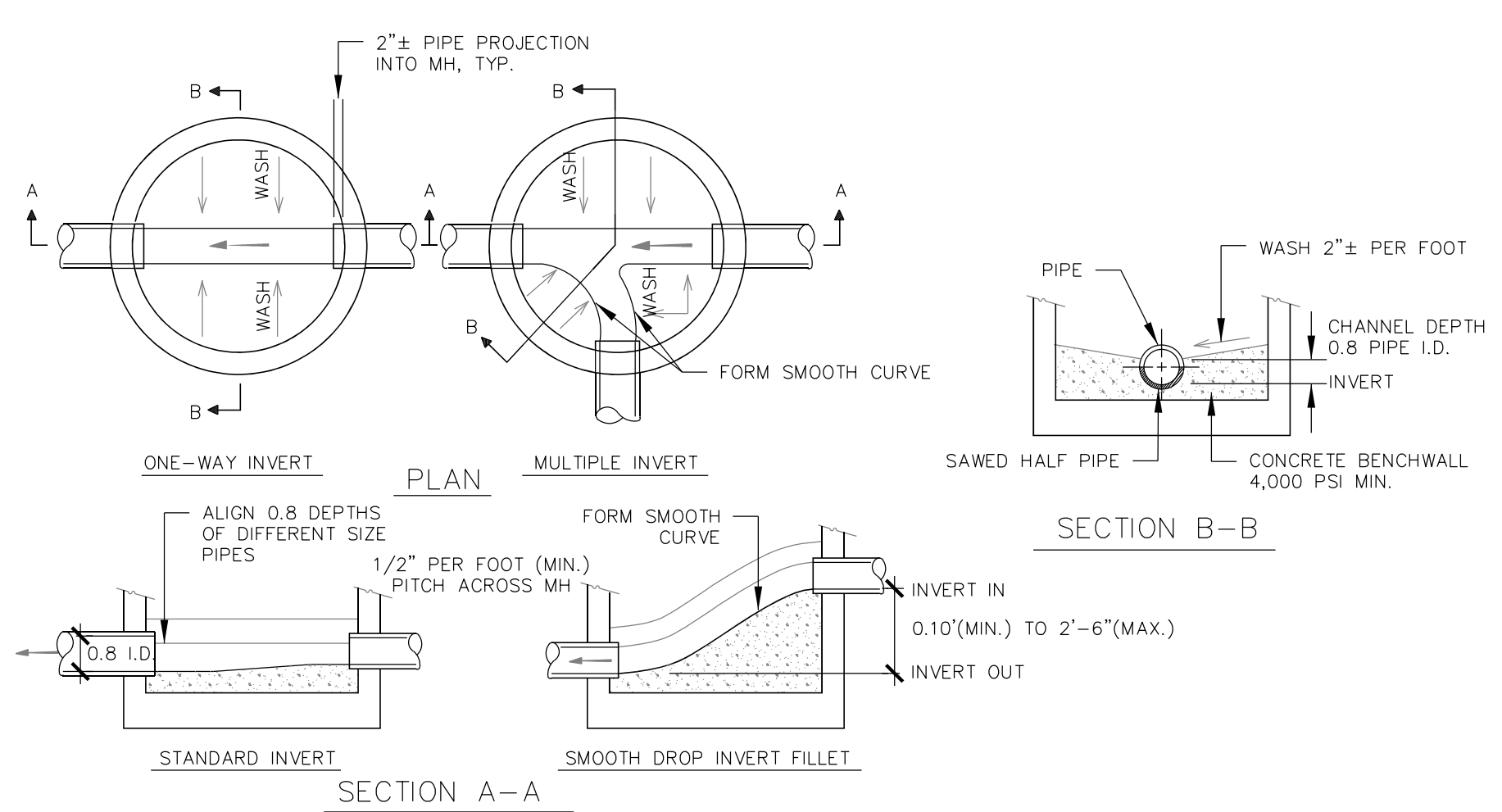
PERCOLATION RATE:	16-20 MIN/INCH
APPLICATION RATE:	0.70 GPD/SF
REQUIRED TRENCH LENGTH:	443 LF TOTAL (2' WIDE TRENCH)
DESIGN:	
TOTAL TRENCH LENGTH:	8 TRENCHES @56 LF 448 LF



- NOTES:
1. HYDROMATIC PUMPS & CONTROLS AVAILABLE FROM EMMONS PUMP & CONTROL, INC. 1-800-540-8228. THIS PRODUCT WAS SELECTED BASED ON THE DESIGN CRITERIA, SITE CONDITIONS, AND LOCAL AVAILABILITY. SUBSTITUTION OF OTHER BRAND EQUIPMENT WILL BE ALLOWED IF SHOWN TO BE EQUIVALENT.
 2. PUMP MOTOR SHALL BE POWERED FROM A DEDICATED CIRCUIT, SEPARATE FROM ALARM.
 3. PITCH PRESSURE PIPE BACK TO PUMP PIT TO DRAIN.
 4. PROVIDE DUPLEX PUMP EQUIPMENT AND CONTROL PANEL.
 5. PROVIDE STRUCTURAL BALLAST FOR ANTI-FLOTATION OF PIT.
 6. VALVES AND PIPING TO BE SCH-80 PVC INSIDE OF PUMP PIT.

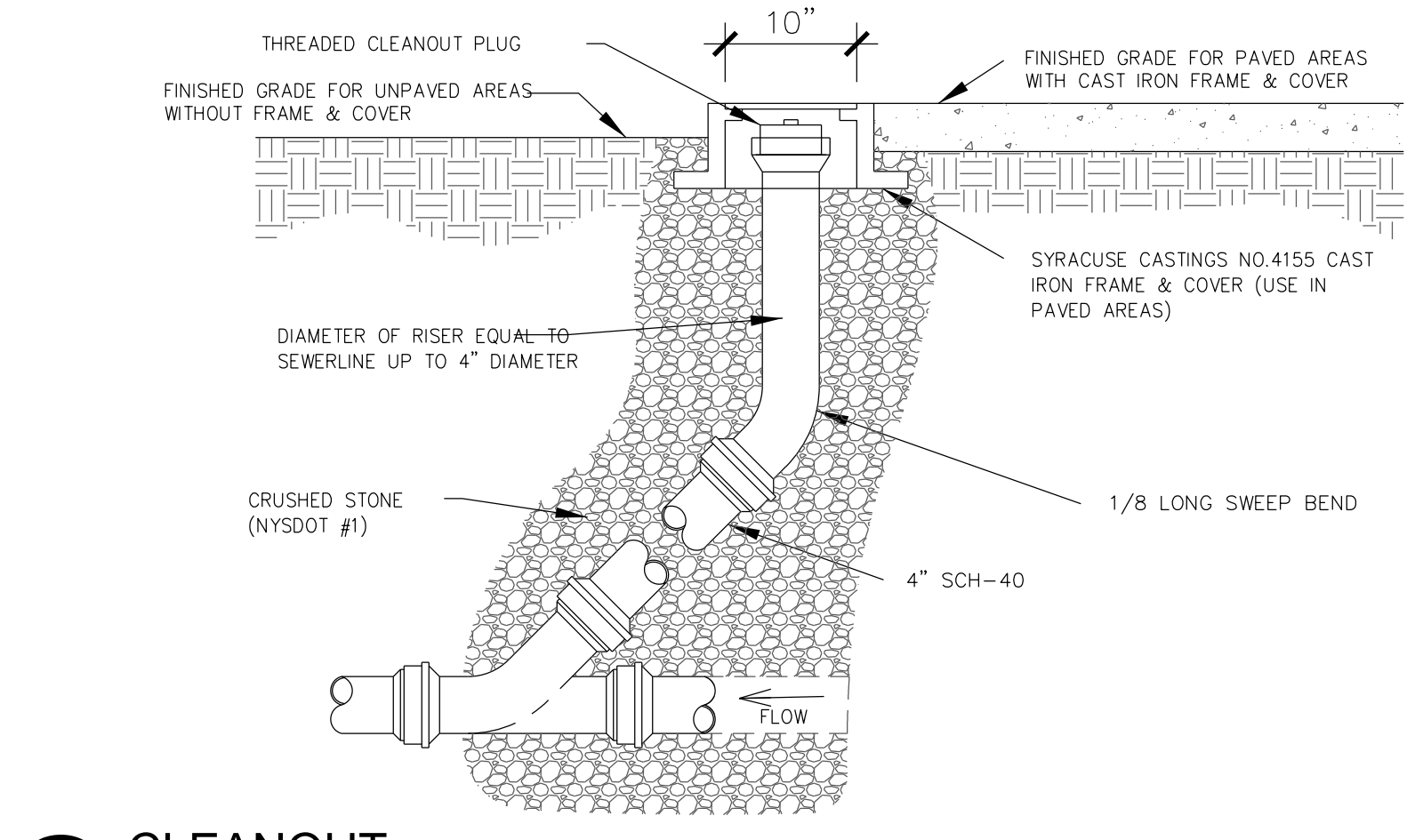
4 DUPLEX PUMP STATION

SCALE: NTS



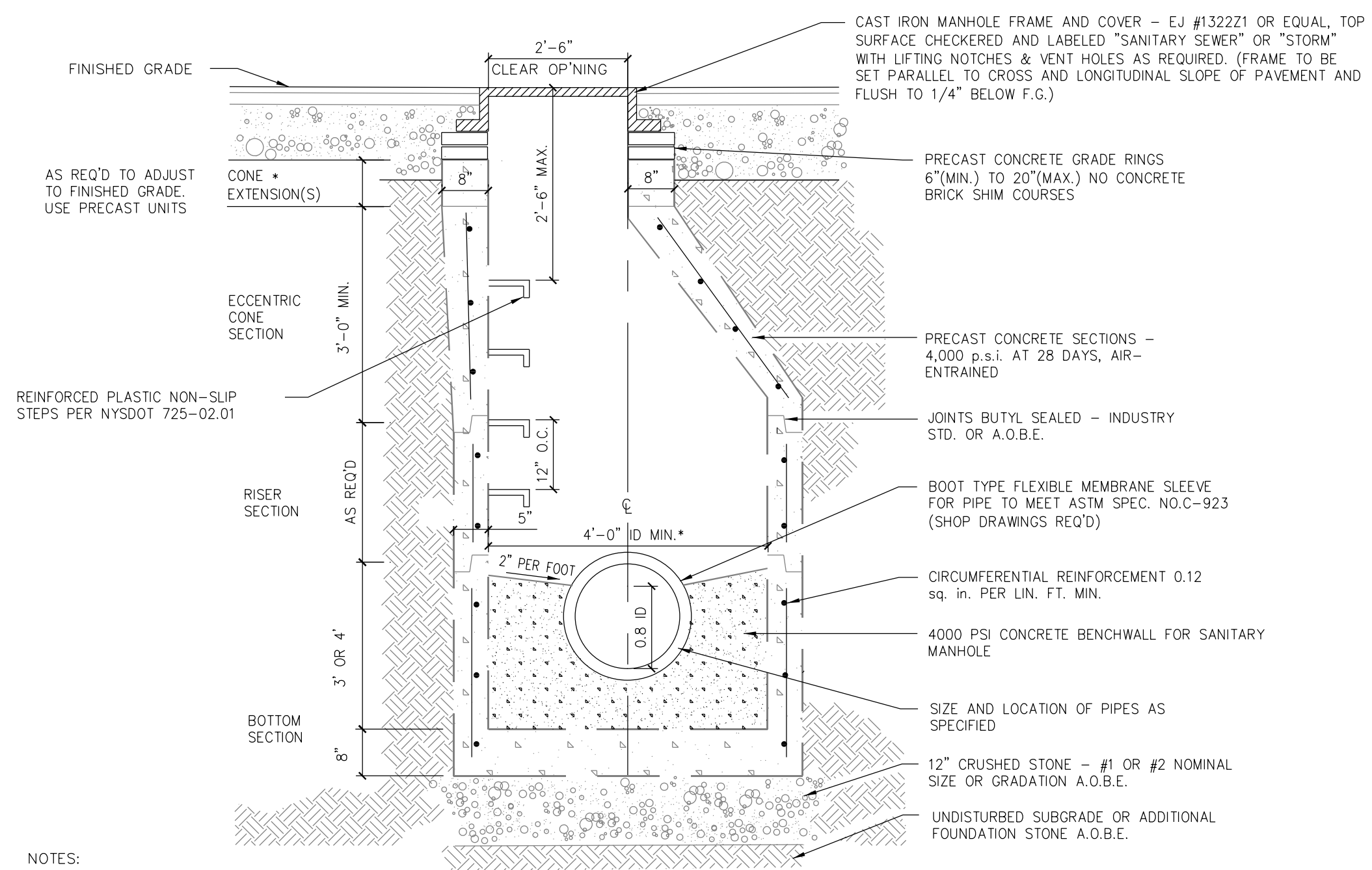
5 MAHMHOLE BENCH

SCALE: NTS



1 CLEANOUT

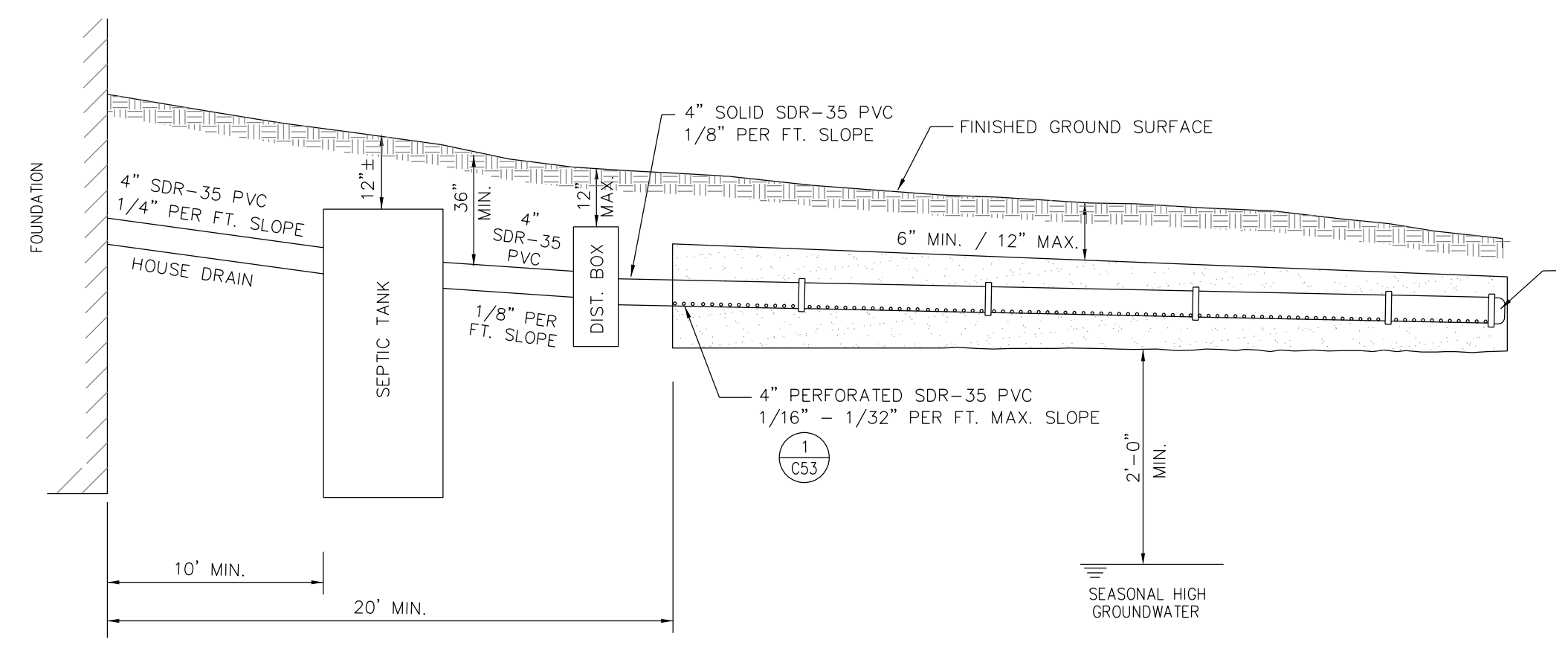
SCALE: NTS



- NOTES:
- 1.) ALL MANHOLES TO BE PLACED IN ANY TRAFFIC AREAS SHALL MEET AASHTO HS20-44 WHEEL LOADING REQUIREMENTS.

2 MANHOLE

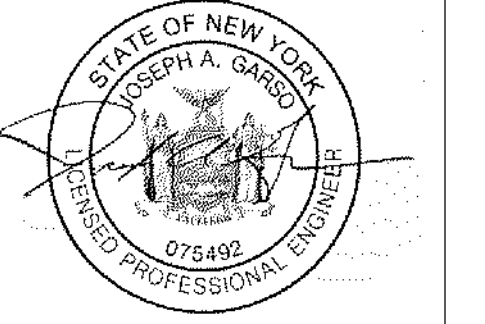
SCALE: NTS



3 SCHEMATIC SEPTIC SYSTEM PROFILE - SHALLOW ABSORPTION TRENCH GRAVITY

SCALE: NTS

3



WARNING: IT IS A VIOLATION OF NEW YORK STATE LAW FOR ANY PERSON UNLESS ACTING UNDER THE SUPERVISION OF A LICENSED PROFESSIONAL ENGINEER TO ALTER AN ITEM IN ANY WAY. IF ALTERED, THE ALTERING ENGINEER SHALL AFFIX TO THE DOCUMENT THEIR SEAL AND THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE AND THE DATE OF ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

L.S. MARINA, LLC
SARANAC LAKE MARINA

PROJECT NAME

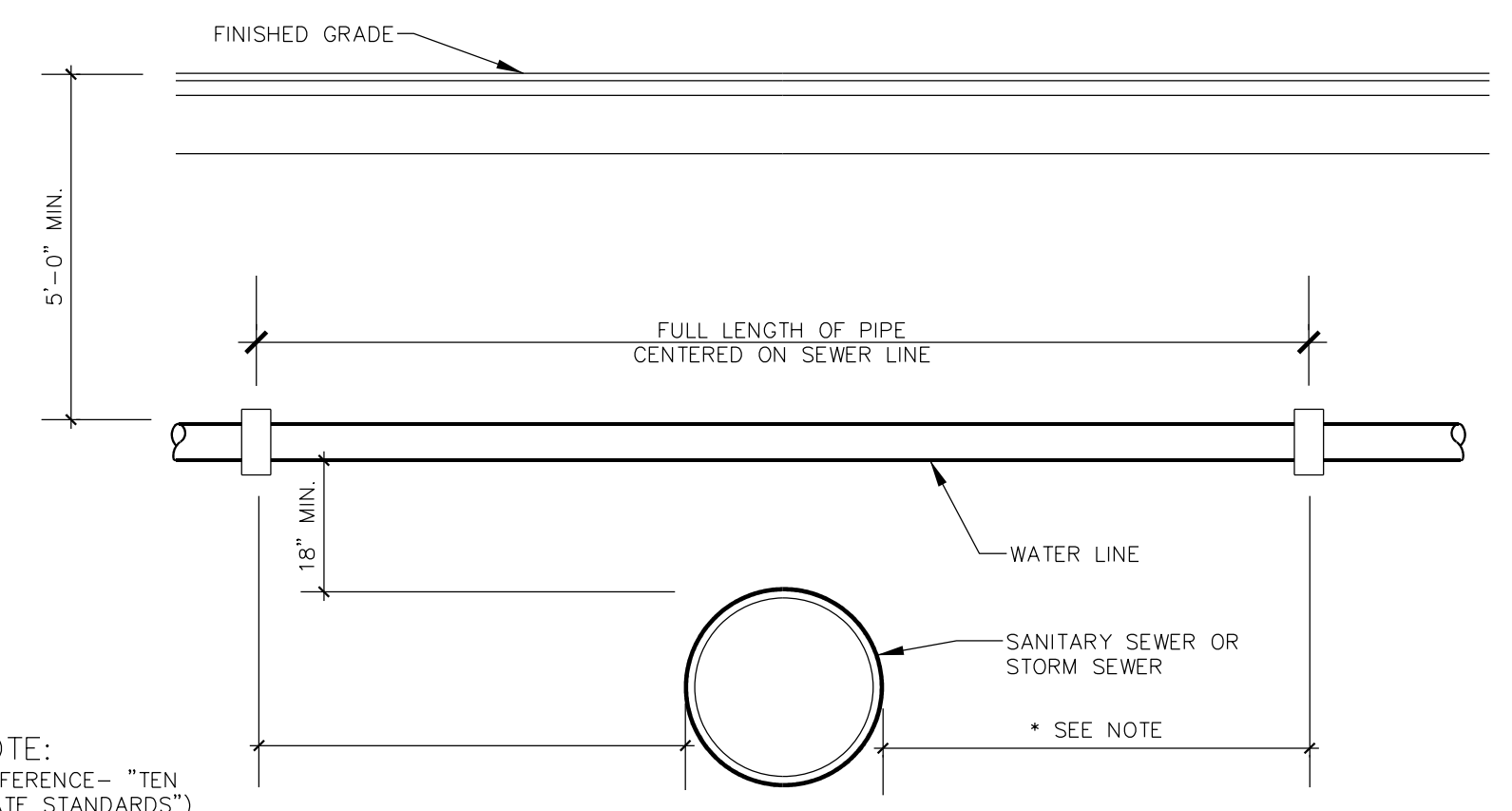
LOCATION
4901 NYS ROUTE 3
SARANAC LAKE, NEW YORK

DATE	ISSUED FOR	REV
05-01-20	APA PERMITTING	

DRAWN BY: BMD/KMR
CHECKED BY: JA GARSO
PROJECT #: 19-061
ORIGINAL 24"x36"

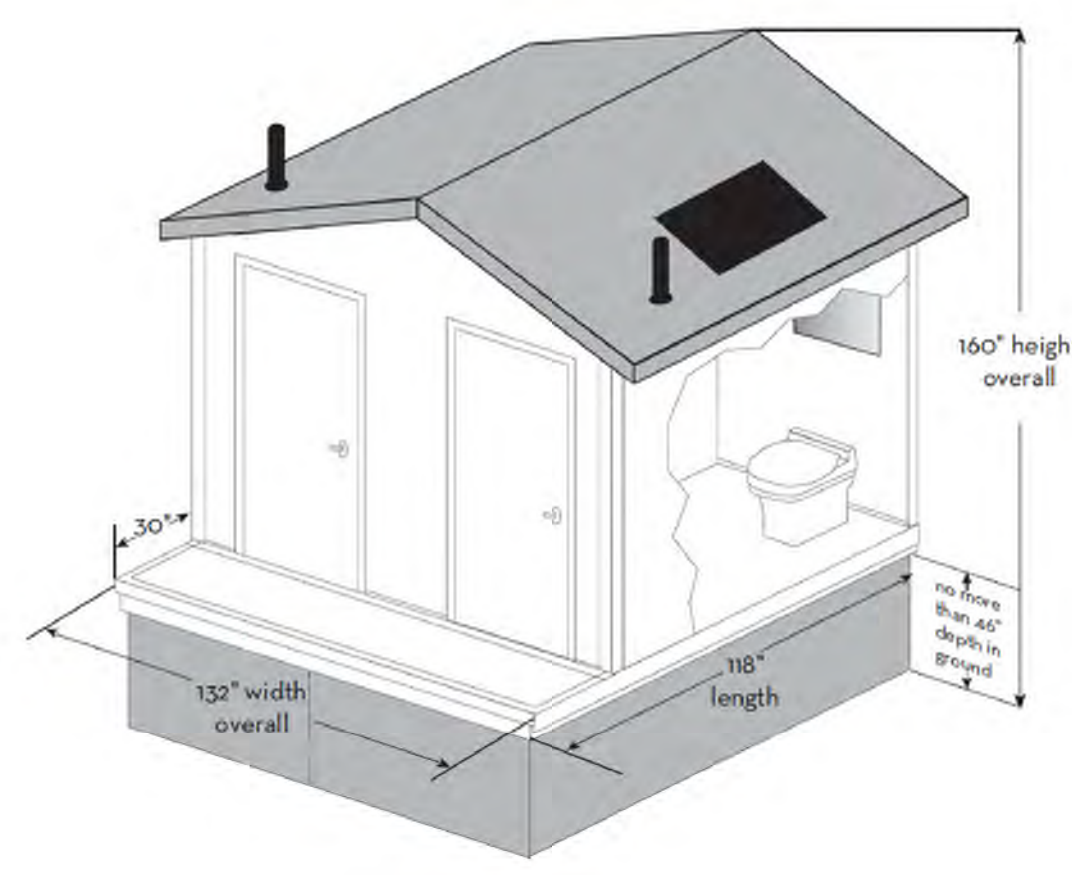
TITLE
UTILITY DETAILS

SHEET
C55



NOTE:
(REFERENCE-- "TEN STATE STANDARDS")
WHEN INSTALLED PARALLEL, ALL WATER AND SEWER LINES SHALL HAVE A MINIMUM SEPARATION OF 10', EDGE TO EDGE. IF MINIMUM CANNOT BE MAINTAINED, WATER MAIN SHALL BE IN SEPARATE TRENCH OR ON AN UNDISTURBED EARTH SHELVE TO ONE SIDE OF SEWER, WITH BOTTOM OF WATER MAIN 18" MINIMUM ABOVE TOP OF SEWER PIPE. WHEN CROSSING, MAINS SHALL BE INSTALLED TO INSURE 18" MINIMUM VERTICAL SEPARATION BETWEEN PIPES, OUTSIDE TO OUTSIDE. WHERE WATER MAIN IS UNDERNEATH SEWER, ADEQUATE STRUCTURAL SUPPORT SHALL BE PROVIDED FOR THE SEWER TO PREVENT DAMAGE TO WATER MAIN. WHEN IT IS IMPOSSIBLE TO PROVIDE THE ABOVE MINIMUMS, THE SEWER SHALL BE DESIGNED AND CONSTRUCTED EQUAL TO WATER PIPE, AND SHALL BE PRESSURE TESTED TO ASSURE WATERTIGHTNESS PRIOR TO BACKFILLING.

1 UTILITY CROSSING DETAIL SCALE: NTS



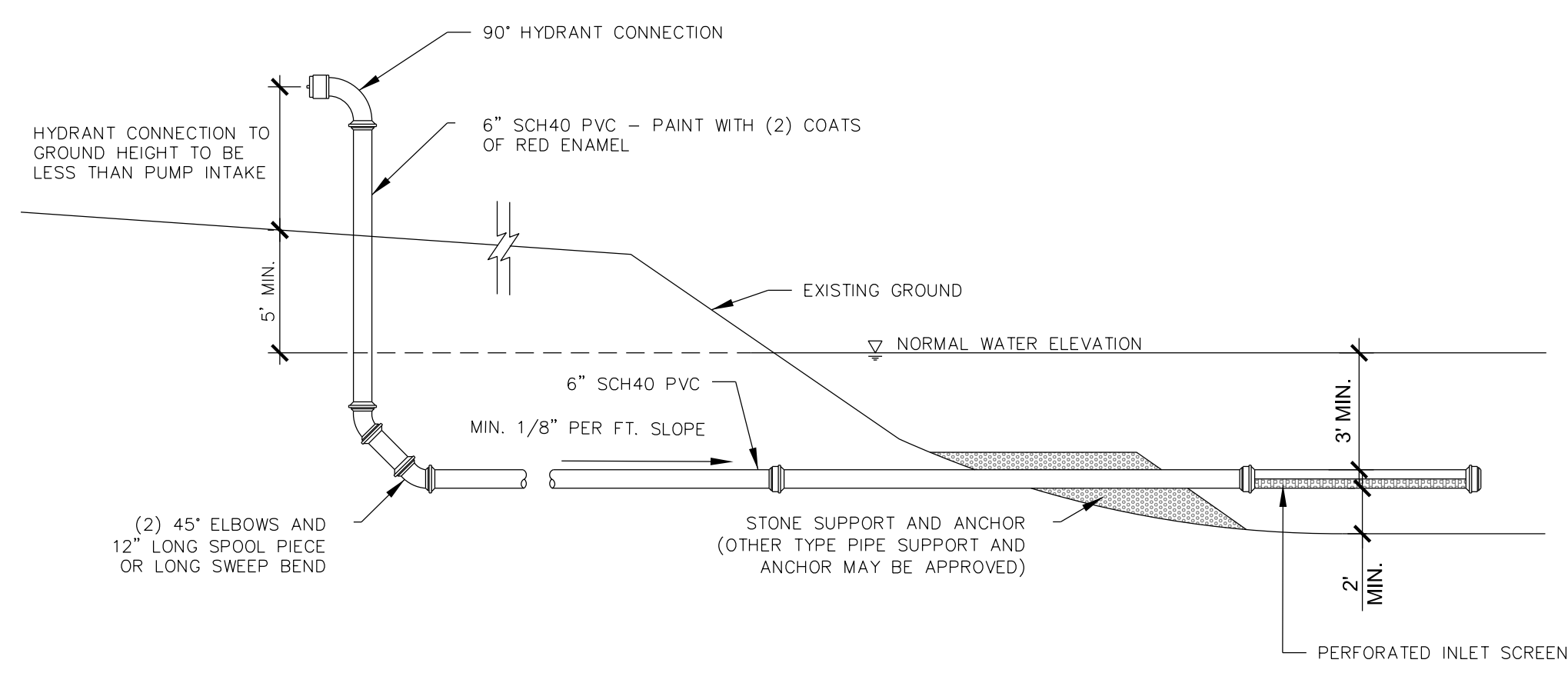
NOTES:
1. SYSTEM TO BE CLIVUS MULTIRUM M54W OR APPROVED EQUAL
2. INSTALLATION SHALL BE IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS AND STANDARDS.
3. MAINTENANCE SHALL OCCUR IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.

SYSTEM SIZING: (BASED ON AVERAGE VISITS PER YEAR)
22,000 VISITS/UNIT/YEAR

MAIN MARINA
178 BOAT SLIPS X 0.16 PEAK FACTOR = 29 BOATS/DAY
ASSUME 3 VISITS/BOAT = 87 VISITS/DAY
ASSUME 5 MONTHS (150 DAYS)
13,050 VISITS/YEAR = 1 UNIT REQ'D
2 UNITS AS SUGGESTED BY MANUFACTURER

ANNEX
114 BOAT SLIPS X 0.16 PEAK FACTOR = 19 BOATS/DAY
ASSUME 3 VISITS/BOAT = 57 VISITS/DAY
ASSUME 5 MONTHS (150 DAYS)
8,550 VISITS/YEAR
1 UNIT REQ'D RECOMMENDED BY MANUFACTURER

2 COMPOSTING TOILET SCALE: NTS



3 DRY HYDRANT PROFILE SCALE: NTS