

Under Review

Submitted for Site Plan Review

Kiawah Island

SITE DEVELOPMENT OF OCEAN PINES

KIAWAH ISLAND, SOUTH CAROLINA

PREPARED FOR:
KRA, LP
1 KIAWAH ISLAND PARKWAY
KIAWAH ISLAND, SC 29455
(843) 768-3418

TM# 207-05-00-118

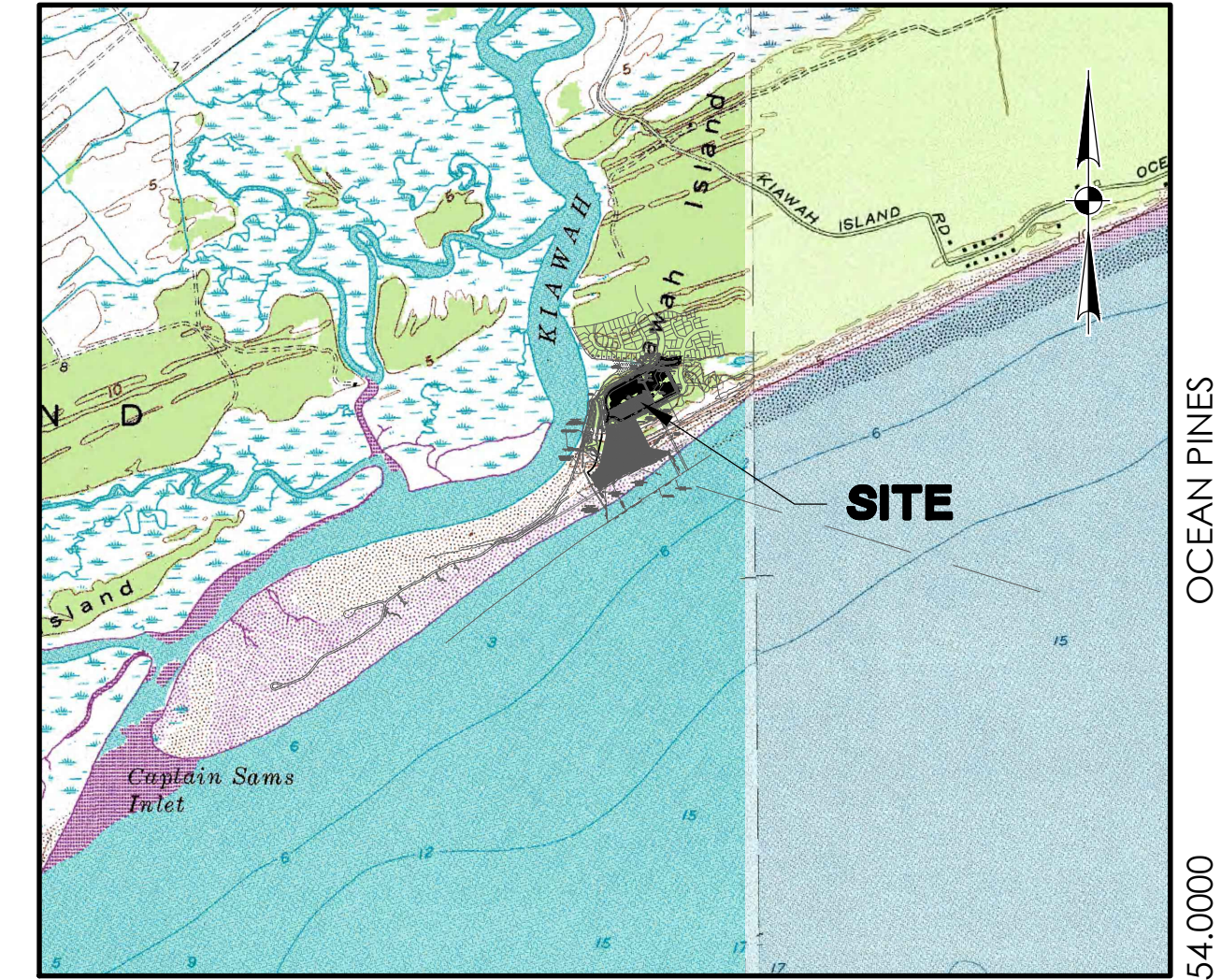
NOVEMBER 8, 2022

J-25854.0000

PREPARED BY:



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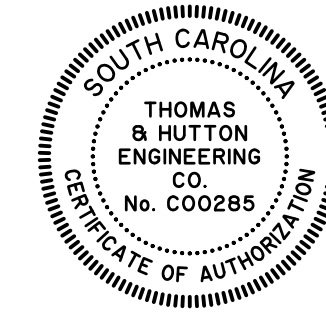


VICINITY MAP
SCALE: 1" = 2000'

J-25854.0000
11/8/22

Sheet List Table

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Hart Howerton	Site Coverage Exhibit
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REVISION HISTORY			
REV. NO.	REVISION	BY	DATE

SUBMITTAL HISTORY	
SUBMITTED TO	DATE
SUBMITTED TO TOKI	5-26-2023
SUBMITTED TO DHEC	4-24-2023
SUBMITTED TO DHEC/OCRM	11-8-2022



Know what's below.
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PARKING TABLE

Under Review Submitted for Site Plan Review		PARKING SPACES REQUIRED				
BUILDING	USE/AGE	PARKING REQUIREMENT	CALCULATION			SPACES
A	MULTIPLE FAMILY	1.75 OR 2 SPACES PER BEDROOM TYPE	2 BDRM 9X1.75=15.75	3 BDRM 3X2=6	4 BDRM 2X2=4	25.75
B	MULTIPLE FAMILY	1.75 OR 2 SPACES PER BEDROOM TYPE	9X1.75=15.75	3X2=6	2X2=4	25.75
C	MULTIPLE FAMILY	1.75 OR 2 SPACES PER BEDROOM TYPE	4X1.75=7	4X2=8	-	15
D	MULTIPLE FAMILY	1.75 OR 2 SPACES PER BEDROOM TYPE	4X1.75=7	4X2=8	-	15
E	MULTIPLE FAMILY	1.75 OR 2 SPACES PER BEDROOM TYPE	4X1.75=7	4X2=8	-	15
F	MULTIPLE FAMILY	1.75 OR 2 SPACES PER BEDROOM TYPE	4X1.75=7	4X2=8	-	15
G	MULTIPLE FAMILY	1.75 OR 2 SPACES PER BEDROOM TYPE	3X1.75=5.25	5X2=10	-	15.25
H	MULTIPLE FAMILY	1.75 OR 2 SPACES PER BEDROOM TYPE	3X1.75=5.25	5X2=10	-	15.25
J	MULTIPLE FAMILY	1.75 OR 2 SPACES PER BEDROOM TYPE	3X1.75=5.25	5X2=10	-	15.25
			TOTAL SPACES REQUIRED:			157.25
			ACCESSIBLE SPACES REQUIRED:			6.29
PARKING SPACES PROVIDED						
ITEM	PROPOSED LOCATION		ACCESSIBLE SPACES		SPACES*	
A	SPACES PROVIDED WITHIN BUILDING FOOTPRINT		2		25	
B	SPACES PROVIDED WITHIN BUILDING FOOTPRINT		2		25	
C	SPACES PROVIDED WITHIN BUILDING FOOTPRINT		2		13	
D	SPACES PROVIDED WITHIN BUILDING FOOTPRINT		2		13	
E	SPACES PROVIDED WITHIN BUILDING FOOTPRINT		2		13	
F	SPACES PROVIDED WITHIN BUILDING FOOTPRINT		2		13	
G	SPACES PROVIDED WITHIN BUILDING FOOTPRINT		2		15	
H	SPACES PROVIDED WITHIN BUILDING FOOTPRINT		2		14	
J	SPACES PROVIDED WITHIN BUILDING FOOTPRINT		2		14	
ON SITE	SPACES PROVIDED OUTSIDE BUILDINGS (BY BUILDING F)**				31	
			TOTAL SPACES PROPOSED: (INCLUDES ACCESSIBLE)			176
			ACCESSIBLE SPACES PROVIDED:			18

**ON SITE SPACES PROVIDED TO MEET SUPPLEMENTARY PARKING REQUIREMENTS FOR THE CAPE, INCLUDING 10 SPACES FOR THE RESTAURANT IN THE CLUB AND 4 SPACES FOR TWO SINGLE-FAMILY COTTAGES.



PROJECT MAP

SCALE: 1" = 400'

GENERAL NOTES

- SURVEYING AND BOUNDARY INFORMATION BY SOUTHEASTERN LAND SURVEYING, LLC.
- ALL ELEVATIONS SHOWN ARE BASED ON NGVD 1929.
- TOPOGRAPHIC SURVEY BY SOUTHEASTERN LAND SURVEYING, LLC.
- CONTRACTOR IS TO VERIFY ACCURACY OF ANY TEMPORARY BENCHMARKS SHOWN PRIOR TO UTILIZING THEM FOR CONSTRUCTION.
- THE EXISTING UNDERGROUND UTILITIES SHOWN HEREON ARE BASED UPON AVAILABLE INFORMATION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE EXACT LOCATION OF ALL UTILITIES OTHER THAN THOSE SHOWN ARE ENCOUNTERED DURING CONSTRUCTION. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY AND TAKE STEPS TO PROTECT THE LINE(S) AND ENSURE CONTINUED SERVICE. DAMAGE CAUSED TO EXISTING UTILITIES BY THE CONTRACTOR SHALL BE REPAIRED BY THE CONTRACTOR. ADDITIONALLY, THE CONTRACTOR SHALL CONFIRM THE CONNECTION POINTS OF NEW UTILITIES TO EXISTING UTILITIES PRIOR TO BEGINNING NEW CONSTRUCTION.
- IF WORK IS SUSPENDED OR DELAYED FOR 14 DAYS, THE CONTRACTOR SHALL TEMPORARILY STABILIZE THE DISTURBED AREA AT NO ADDITIONAL COST TO THE OWNER.
- THE CONTRACTOR SHALL INSTALL ANY BARRICADES PRIOR TO BEGINNING CONSTRUCTION
- THE FOLLOWING NOTES ARE SPECIFIED BY THE KICA AND ARE TO BE EXECUTED BY THE CONTRACTOR FOR STREETS IN THE PROJECT WHICH ARE TO BE DEEDED TO KICA:
 - ANY DAMAGE TO EXISTING PAVEMENT MUST BE REPAIRED AT CONTRACTORS EXPENSE AND TO THE SATISFACTION OF KICA AND THE PROJECT ENGINEER.
 - ALL RIGHT-OF-WAY AND DRAINAGE EASEMENT CONSTRUCTION SHALL MEET TOWN OF KIAWAH ISLAND STANDARD SPECIFICATIONS UNLESS SPECIFIED ELSEWHERE AND APPROVED IN WRITING BY THE TOWN.
 - WHERE FIELD INSPECTIONS ARE REQUIRED BY THE TOWN, THE CONTRACTOR SHALL NOTIFY THE ENGINEERING DIVISION A MINIMUM OF 48 HOURS IN ADVANCE TO SCHEDULE SUCH INSPECTIONS.
 - A COMPLETE SET OF APPROVED DRAWINGS AND SPECIFICATIONS MUST BE MAINTAINED ON SITE AT ALL TIMES THAT THE CONTRACTOR IS PERFORMING WORK. THESE DRAWINGS SHALL BE MADE AVAILABLE UPON REQUEST.
 - ANY REVISIONS DURING CONSTRUCTION WHICH ALTER THE ROAD LAYOUT, CONSTRUCTION METHODS, RIGHT-OF-WAY LOCATION OR DRAINAGE MUST BE SUBMITTED AND APPROVED IN WRITING BY THE PROJECT ENGINEER.
 - THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL CONSTRUCTION PERMITS NECESSARY FROM OTHER RESPONSIBLE AGENCIES.
 - ALL TREES SHOWING DISTURBANCE WITHIN THE PROTECTED ROOT ZONE SHALL BE PRUNED AND FERTILIZED BY A CERTIFIED ARBORIST PRIOR TO RECEIVING FINAL PLAT APPROVAL (THIS WORK WILL BE DONE BY THE OWNER OUTSIDE OF THE CONTRACT.)
 - LAKE CONTOURS SHOWN HEREIN WILL PROVIDE A DEPTH ONE FOOT GREATER THAN NECESSARY FOR STORM WATER MANAGEMENT. THIS IS TO PROVIDE FOR ONE FOOT OF SILT BUILDUP DURING CONSTRUCTION OF ANY AREA OF ANY POND WHICH SILTS MORE THAN ONE FOOT ABOVE DESIGNED BOTTOM ELEVATION SHALL BE RESTORED TO THE MINIMUM ACCEPTABLE DEPTH OF ONE FOOT LESS THAN ORIGINAL CONSTRUCTED DEPTH.
 - ALL ABOVE GROUND UTILITIES ARE TO BE OUTSIDE OF THE R/W AND ALL AT GRADE UTILITIES ARE TO BE OUT OF THE CURB LINE.
- THE CONTRACTOR SHALL INSTALL ALL EROSION CONTROL AND PREVENTION STRUCTURES SHOWN ON THE PLANS.
- THE CONTRACTOR SHALL NOTIFY THE ENGINEER IF UNSUITABLE MATERIAL IS DISCOVERED PRIOR TO BEGINNING ANY REMOVAL OPERATION.
- CONTRACTOR SHALL GRADE AREAS TO DRAIN FOR POSITIVE FLOW PRIOR TO FINAL APPROVAL.
- ALL TRAFFIC CONTROL SIGNS AND PAVEMENT MARKINGS SHALL BE IN ACCORDANCE WITH THE MANUAL ON "UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS" AND "SOUTH CAROLINA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" BOTH CURRENT EDITIONS.
- ALL DRAINAGE WILL BE MADE FUNCTIONAL DAILY AS WORK PROGRESSES.
- ALL MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH TOWN OF KIAWAH ISLAND ROAD CODE.

SEWER LEGEND

DESCRIPTION	EXISTING	PROPOSED
GRAVITY PIPE	SS	---
SINGLE SERVICE LATERAL	---	---
DOUBLE SERVICE LATERAL	---	---
MANHOLE	○	●
CLEANOUT	○	●

ABBREVIATIONS

HOPE	HIGH DENSITY POLYETHELENE	LF	LINEAR FEET	SF	SQUARE FEET
BOT	BOTTOM	MAX	MAXIMUM	SS	SANITARY SEWER
CI	CURB INLET	MIN	MINIMUM	TC	TOP OF CURB
CPP	CORRUGATED PLASTIC PIPE	MH	MANHOLE	TG	TOP OF GUTTER
DIP	DUCTILE IRON PIPE	OC	ON CENTER	TP	TOP OF PAVEMENT
EL	ELEVATION	PC	POINT OF CURVE	TW	TOP OF WALK
FG	FINISH GRADE	PH	POST HYDRANT	TYP	TYPICAL
FH	FIRE HYDRANT	PT	POINT OF TANGENT	W	WATER
FM	FORCE MAIN (SANITARY SEWER)	PVC	POLYVINYL CHLORIDE	W/	WITH
FR	FRAME	RCP	REINFORCED CONCRETE PIPE	WV	WATER VALVE
GI	GRATE INLET	RJP	RESTRAINED JOINT PIPE	YI	YARD INLET
GV	GATE VALVE	R/W	RIGHT-OF-WAY		
INV	INVERT ELEVATION	SD	STORM DRAINAGE		
JB	JUNCTION BOX	SDMH	STORM DRAINAGE MANHOLE		

WATER LEGEND

DESCRIPTION	EXISTING	PROPOSED
WATER MAIN	10"W	10"W
SINGLE SERVICE LATERAL	---	---
DOUBLE SERVICE LATERAL	---	---
VALVE AND BOX	⊗	⊗
FIRE HYDRANT W/VALVE & BOX	⊗	⊗
POST HYDRANT	⊗	⊗
REDUCER	▽	▽
BACKFLOW PREVENTOR	⊠	⊠
CROSS	┌┐	┌┐
TEE	┌┐	┌┐
90° BEND - HORIZONTAL	└┘	└┘
45° BEND - HORIZONTAL	└┘	└┘
22-1/2° BEND - HORIZONTAL	└┘	└┘
11-1/4° BEND - HORIZONTAL	└┘	└┘
BEND - VERTICAL	┌┐	┌┐
CAP		

DRAINAGE LEGEND

DESCRIPTION	EXISTING	PROPOSED
PIPE	---	---
DITCH	---	---
CURB INLET	⊗	⊗
GRATE INLET	⊗	⊗
JUNCTION BOX	⊗	⊗
OUTLET STRUCTURE	⊗	⊗

OTHER UTILITIES LEGEND

DESCRIPTION	EXISTING
NATURAL GAS	UGG
TELEPHONE	OHT
UNDERGROUND TELEPHONE	UTL
ELECTRICITY	OHP
UNDERGROUND ELECTRICITY	UGP

GENERAL INFORMATION

COUNTY: CHARLESTON
TOWN: TOWN OF KIAWAH ISLAND
ZONING: R2 ZONING DISTRICT
TMS: 207-05-00-118
FLOOD: ZONE AE ELEV. 14

OWNER:
KRA, LP
1 KIAWAH ISLAND PARKWAY
KIAWAH ISLAND, SC 29455
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PREPARED FOR:
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KIAWAH ISLAND, SC 29455
(843) 768-3418

NO.	REVISIONS	BY	DATE

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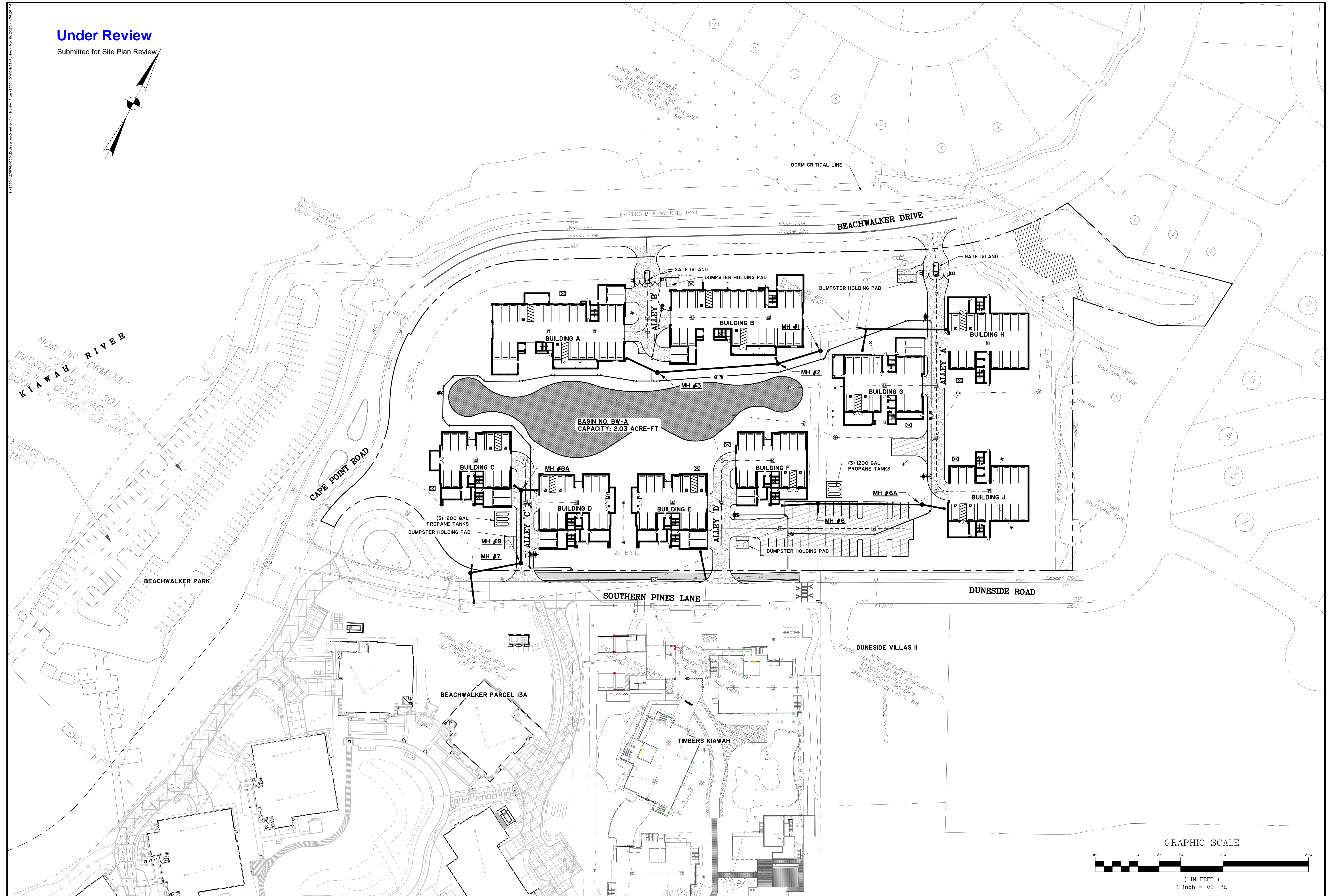
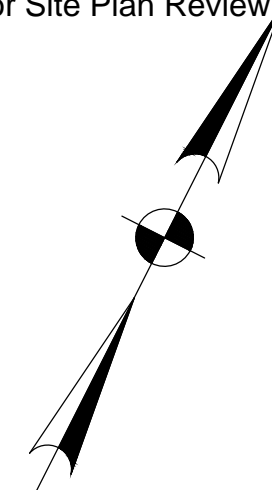
KRA, LP
KIAWAH ISLAND, SOUTH CAROLINA
OCEAN PINES
GENERAL NOTES AND PROJECT MAP

JOB NO:	J-25854.0000
DATE:	11/8/22
DRAWN:	LMD
DESIGNED:	LMD
REVIEWED:	DJJ
APPROVED:	DJJ
SCALE:	AS SHOWN

GO.1

Under Review

Submitted for Site Plan Review



NOW OR FORMERLY
KIWAH II, LLC
TIM# 201-05-00-001
ED BOOK 0335 PAGE 077
BOOK EK, PAGE 031-034

NOW OR FORMERLY
KIWAH RESORT ASSOCIATES LP
TIM# 201-04-00-002
KIWAH ISLAND WEST END RESIDUAL
DEED BOOK L215 PAGE 489

EMERGENCY
MENT.

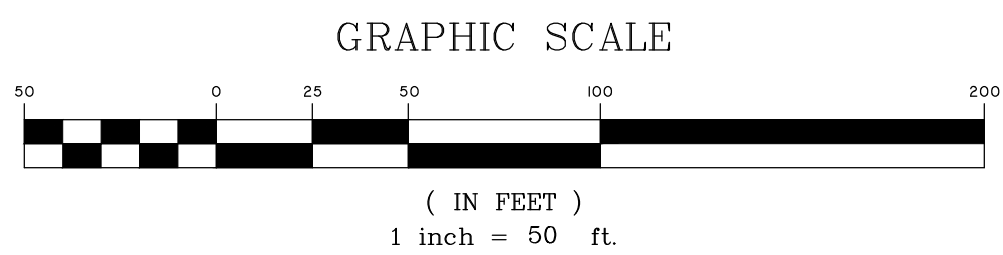
BEACHWALKER PARK

CBRA LINE

BEACHWALKER PARCEL 13A

TIMBERS KIWAH

DUNESIDE VILLAS II



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KIWAH ISLAND, SOUTH CAROLINA

OCEAN PINES

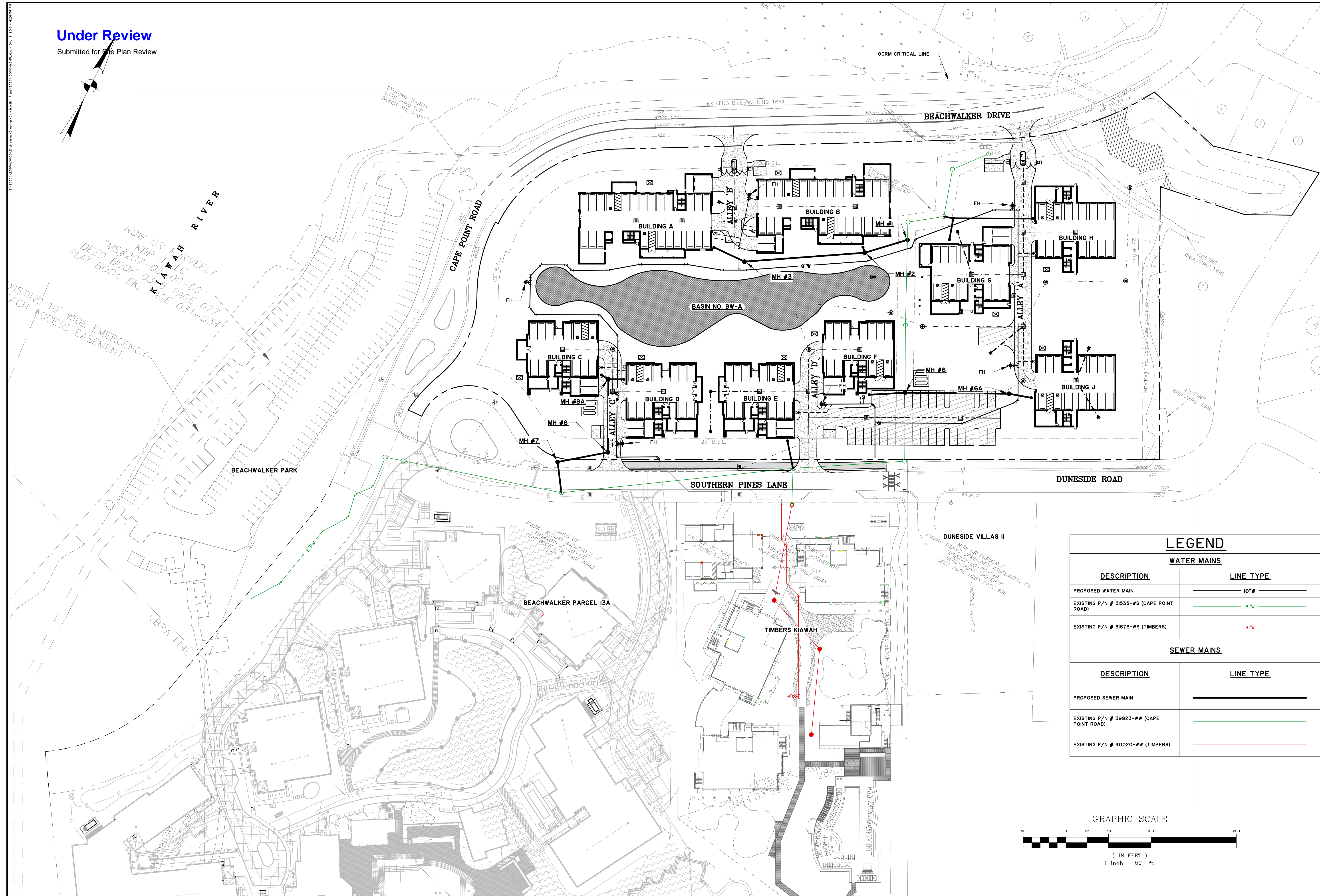
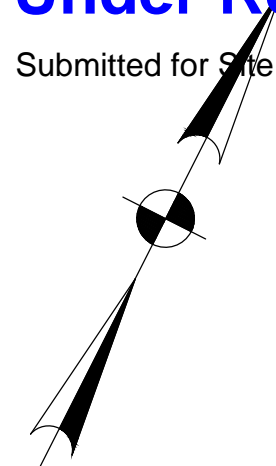
MASTER PLAN

JOB NO: J-25854.0000
DATE: 11/8/22
DRAWN: LMD
DESIGNED: LMD
REVIEWED: DJJ
APPROVED: DJJ
SCALE: 1" = 50'

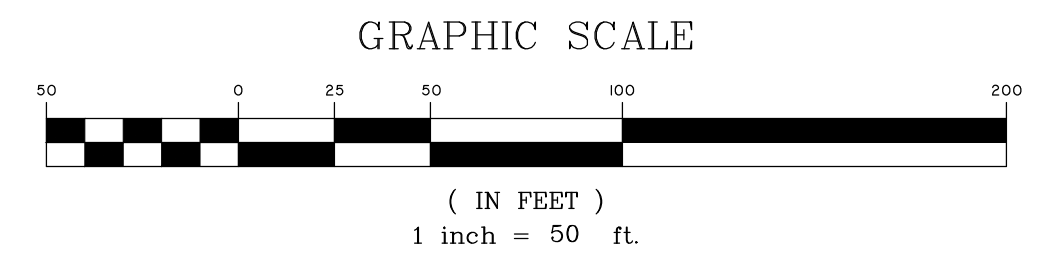
GO.2

Under Review

Submitted for Site Plan Review



LEGEND	
WATER MAINS	
DESCRIPTION	LINE TYPE
PROPOSED WATER MAIN	10" W
EXISTING P/N # 31535-WS (CAPE POINT ROAD)	8" W
EXISTING P/N # 31673-WS (TIMBERS)	8" W
SEWER MAINS	
DESCRIPTION	LINE TYPE
PROPOSED SEWER MAIN	10" W
EXISTING P/N # 39923-WW (CAPE POINT ROAD)	8" W
EXISTING P/N # 40020-WW (TIMBERS)	8" W



NO.	REVISIONS	BY	DATE

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KRA, LP
 KIAWAH ISLAND, SOUTH CAROLINA
 OCEAN PINES
WATER AND SEWER MASTER PLAN

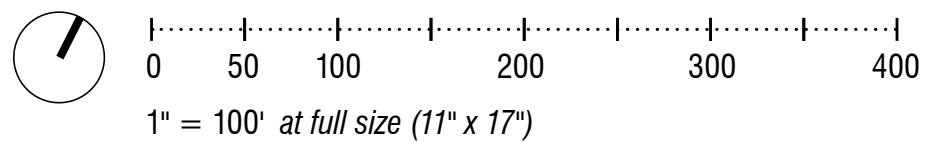
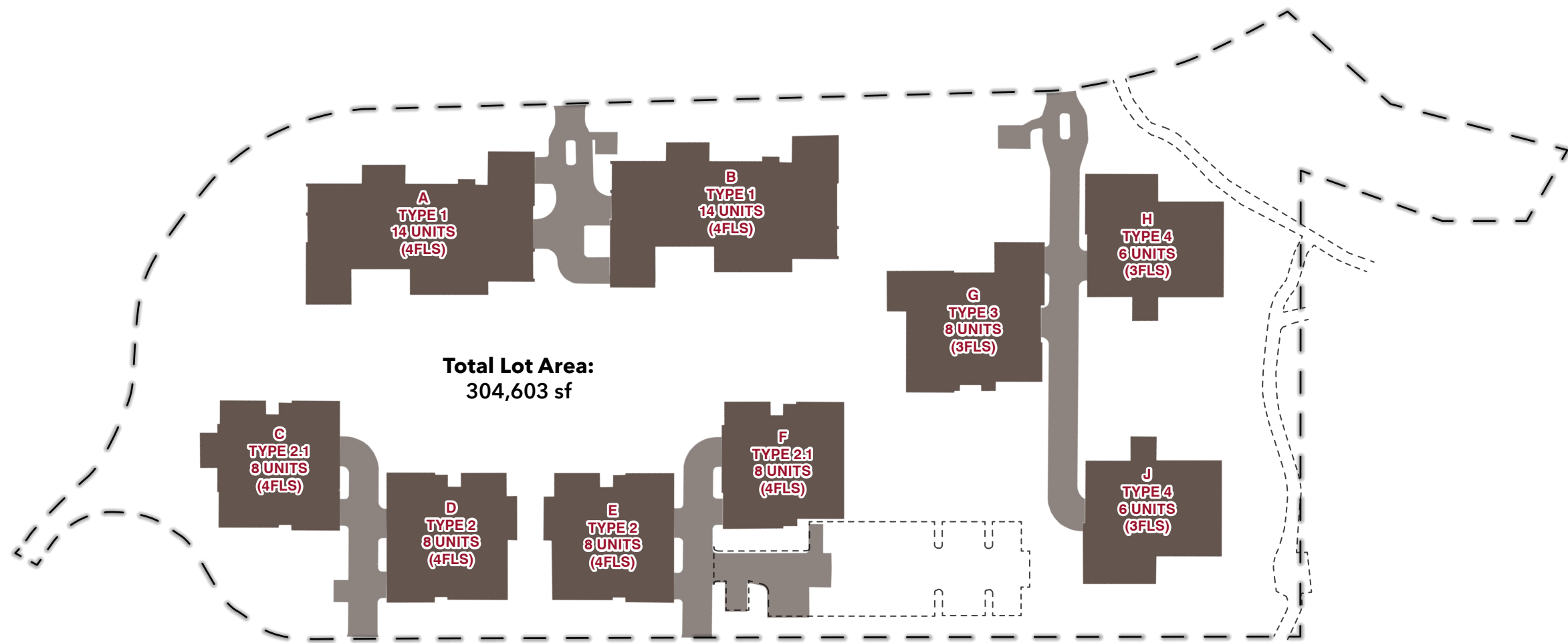
JOB NO: J-25854.0000
 DATE: 11/8/22
 DRAWN: LMD
 DESIGNED: LMD
 REVIEWED: DJJ
 APPROVED: DJJ
 SCALE: 1" = 50'

G1.1

COVERAGE AREA TOTALS		
	Coverage in Square Feet	Coverage as % of Lot Area
Total Lot Area	304,603 SF	100%
Building Footprints & Occupied Overhangs	+/- 57,332 SF	18.8%
Drive Alleys & Dumpster Holding Pads	+/- 20,226 SF	6.64%
Total Primary Coverage (Not to exceed 33% of Lot Area)	+/- 97,558 SF	32.03%

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*KICA leisure trail and Cape Club parking shown for reference only

Civil Site Diagram | Coverage Exhibit

I. SITE DESCRIPTION

- A. PROJECT AREA**
- A.1. PROJECT AREA 20.79 (BEACH WALKER EAST) 13.79 (PARCEL 13A) 7.0 (PARCEL 13B)
 - A.2. AREA SUBMITTED FOR SITE PLAN REVIEW 6.41 (PARCEL 13A) 6.5 (PARCEL 13B)
- B. DESCRIPTION OF CONSTRUCTION ACTIVITY**
- WORK CONSISTS OF WATER DISTRIBUTION AND WASTEWATER COLLECTION SYSTEMS, STORMWATER MANAGEMENT AND ROAD CONSTRUCTION.
- C. RUNOFF DATA**
- C.1. SOIL CLASSIFICATIONS: BEACHES
 - C.2. LAND USE(S): RESIDENTIAL
- D. RECEIVING WATERS**
- D.1. CLOSEST RECEIVING WATERS: KIAWAH RIVER
 - D.2. ULTIMATE RECEIVING WATERS: ATLANTIC OCEAN
- E. FLOOD**
- E.1. FEMA FLOOD ZONE(S): AE (13&14)
 - E.2. FEMA FLOOD INSURANCE MAP(S): 4519C0785K /129/21

II. CONTROL MEASURES

- 1. EROSION AND SEDIMENT CONTROLS**
- PRIOR TO START OF CONSTRUCTION, ALL EXTERIOR SILT FENCE WILL BE INSTALLED AS SHOWN ON THE PLANS.
- 1.1. CLEARING**
- 1.1.1. AS CLEARING IS COMPLETED, ADDITIONAL SILT FENCE WILL BE INSTALLED WHERE NECESSARY, SUCH AS POINTS WHERE CHANNELIZED, AND OTHER POINTS WHERE EXCESSIVE RUNOFF VELOCITIES MAY OCCUR.
 - 1.1.2. INSTALL CONSTRUCTION ENTRANCES / EXITS BEFORE BEGINNING CLEARING.
 - 1.1.3. CONSTRUCTION DELAYS IN ANY ONE AREA GREATER THAN 14 DAYS PRIOR TO START OF ROUGH GRADING WILL MANDATE STABILIZATION PROCEDURES. ACCEPTABLE METHODS OF STABILIZATION INCLUDE MULCHING AND TEMPORARY SEEDING.
 - 1.1.4. MAINTAIN EXISTING VEGETATION WHERE POSSIBLE AND MINIMIZE THE AREA OF DISTURBANCE. RETAIN AND PROTECT TREES TO ENHANCE FUTURE LANDSCAPING EFFORTS AND REDUCE RAINDROP IMPACT.
 - 1.1.5. INSTALL ALL SEDIMENT CONTROL PRACTICES PRIOR TO ANY UP-SLOPE SOIL DISTURBING ACTIVITIES.
 - 1.1.6. PHASE CONSTRUCTION ACTIVITIES TO MINIMIZE THE AREAS DISTURBED AT ONE TIME. THIS WILL ALSO ALLOW COMPLETED AREAS TO BE STABILIZED AND RE-VEGETATED BEFORE DISTURBING ADJACENT SITES. THE NEED FOR TEMPORARY EROSION CONTROL MEASURES MAY BE AVOIDED BY COMPLETING A PHASE AND INSTALLING PERMANENT EROSION CONTROL MEASURES WHEN THE FINAL GRADE IS ATTAINED.
 - 1.1.7. MAINTAIN AND PROTECT ALL NATURAL WATERWAYS. RETAIN AT LEAST A 35-FOOT UNDISTURBED BUFFER OF NATURAL VEGETATION ALONG ALL WATERWAYS TO FILTER OUT SEDIMENT AND OTHER POLLUTANTS. MAINTAIN A 45-FOOT UNDISTURBED BUFFER AROUND SENSITIVE WATERS.
 - 1.1.8. INSTALL SILT FENCE (OR BIO ROLLS/ROCK SOCK PRODUCTS) ON THE DOWN-SLOPE PERIMETER OF ALL DISTURBED AREAS PRIOR TO ANY SOIL DISTURBING ACTIVITIES (INCLUDING CLEARING AND GRUBBING). SILT FENCE CAN TREAT A MAXIMUM OF 100 SQUARE FEET PER LINEAL FOOT OF FENCE. INSTALL SILT FENCE IN SHORTER REACHES ON THE CONTOUR WITH EACH END TURNED UP-SLOPE. SWALES AND SHORLAND AREAS SHOULD ALSO BE PROTECTED WITH SILT FENCE, BIO ROLLS, OR ROCK SOCKS.
 - 1.1.9. IN AREAS OF CONCENTRATED FLOW INSTALL STRAW BALE CHECKS, ROCK CHECK DAMS, TRIANGULAR DIKES, BOLL ROLLANKETS, OR ROCK SOCKS TO SLOW RUNOFF AND TRAP SEDIMENT.
 - 1.1.10. USE TEMPORARY SLOPE DRAINS OR ROCK CHUTES TO MOVE WATER DOWN STEEP SLOPES.
 - 1.1.11. CONSTRUCT SEDIMENT BASINS FOR DRAINAGE AREAS GREATER THAN 10 ACRES
- 1.2. ROUGH GRADING**
- 1.2.1. ALL EXISTING CONTROLS WILL BE MAINTAINED DURING ROUGH GRADING. DELAYS OF GREATER THAN 14 DAYS PRIOR TO START OF NEXT ACTIVITY WILL MANDATE STABILIZATION PROCEDURES. ACCEPTABLE METHODS OF STABILIZATION INCLUDE MULCHING AND TEMPORARY SEEDING.
 - 1.2.2. ALL AREAS NOT SUBJECT TO FURTHER CONSTRUCTION (DRAINAGE, SANITARY SEWER, ROADS, WATER DISTRIBUTION SYSTEMS, OR STORM WATER FACILITIES) SHALL BE GRASSED WITH A PERMANENT COVER.
 - 1.2.3. COVER ANY STOCK PILED TOPSOIL WITH PLASTIC (OR OTHER IMPERVIOUS COVERING) OR USE A TEMPORARY SEED MIX. USE STOCKPILED TOPSOIL AS EARTHEN BERMS TO SERVE AS TEMPORARY SEDIMENT BASINS.
- 1.3. DRAINAGE**
- 1.3.1. ALL EXISTING CONTROLS WILL BE MAINTAINED DURING DRAINAGE INSTALLATION.
 - 1.3.2. CONSTRUCTION DRAINAGE WILL BE ROUTED THROUGH LAKES, WHICH WILL ACT AS SEDIMENT BASINS OR OTHER ACCEPTABLE SEDIMENT BASINS/TRAPS.
 - 1.3.3. STORM DRAIN INLET PROTECTION AS SHOWN ON DETAIL SHEET SHALL BE INSTALLED ON ALL CURB INLETS, STORM DRAIN MANHOLES, JUNCTION BOXES, AND GRATE INLETS.
 - 1.3.4. DELAYS OF GREATER THAN 14 DAYS PRIOR TO START OF THE NEXT CONSTRUCTION SEQUENCE WILL MANDATE STABILIZATION PROCEDURES. ACCEPTABLE METHODS OF STABILIZATION INCLUDE MULCHING AND TEMPORARY SEEDING.
 - 1.3.5. ALL STORM LINES NOT IN STREETS OR OTHER PAVED AREAS ARE TO BE MULCHED AND SEEDED WITHIN 5 DAYS AFTER BACKFILL.
- 1.4. WATER DISTRIBUTION SYSTEM INSTALLATION**
- 1.4.1. ALL EXISTING CONTROLS WILL BE MAINTAINED DURING INSTALLATION OF THE WATER DISTRIBUTION SYSTEM.
 - 1.4.2. DELAYS OF GREATER THAN 14 DAYS PRIOR TO START OF NEXT ACTIVITY WILL MANDATE STABILIZATION PROCEDURES. ACCEPTABLE METHODS OF STABILIZATION INCLUDE MULCHING AND TEMPORARY SEEDING.
- 1.5. WASTEWATER COLLECTION SYSTEM INSTALLATION**
- 1.5.1. ALL EXISTING CONTROLS WILL BE MAINTAINED DURING INSTALLATION OF THE WASTEWATER SYSTEM.
 - 1.5.2. DELAYS OF GREATER THAN 14 DAYS PRIOR TO START OF NEXT ACTIVITY WILL MANDATE STABILIZATION PROCEDURES. ACCEPTABLE METHODS OF STABILIZATION INCLUDE MULCHING AND TEMPORARY SEEDING.
- 1.6. CONSTRUCTION OF ROADS**
- 1.6.1. ALL EXISTING CONTROLS WILL BE MAINTAINED DURING ROAD CONSTRUCTION.
 - 1.6.2. DELAYS OF GREATER THAN 14 DAYS PRIOR TO START OF NEXT ACTIVITY WILL MANDATE STABILIZATION PROCEDURES. ACCEPTABLE METHODS OF STABILIZATION INCLUDE MULCHING AND TEMPORARY SEEDING.
- 1.7. GRASSING**
- 1.7.1. ALL EXISTING CONTROLS WILL BE MAINTAINED UNTIL GRASSING IS ESTABLISHED
 - 1.7.2. ANY AREAS THAT ERODE OR WHERE GRASS DOES NOT ESTABLISH ITSELF SHALL BE RE-GRADED AND RE-GRASSED.
- 2. STORM WATER MANAGEMENT**
- RUNOFF FROM THIS PROJECT WILL DISCHARGE INTO A STORM WATER MANAGEMENT SYSTEM. TREATMENT WILL OCCUR IN STORM WATER DETENTION PONDS.
- 3. OTHER CONTROLS**
- 3.1. WASTE DISPOSAL
 - 3.1.1. NO SOLID MATERIALS, INCLUDING BUILDING MATERIALS, SHALL BE DISCHARGED TO ANY RECEIVING WATERS.
 - 3.1.2. OFFSITE VEHICLE TRACKING OF SEDIMENTS AND THE GENERATION OF DUST SHALL BE MINIMIZED.
 - 3.1.3. THIS PLAN SHALL COMPLY WITH STATE AND/OR LOCAL WASTE DISPOSAL, SANITARY SEWER OR SEPTIC SYSTEM REGULATIONS.

OR SEPTIC SYSTEM REGULATIONS.

3.1.4. DUST CONTROL ON DISTURBED AREAS - CONTROLLING SURFACE AND AIR MOVEMENT OF DUST ON CONSTRUCTION SITE AND HAUL ROUTES. THE PURPOSE OF THE MEASURE IS TO REDUCE THE PRESENCE OF AIRBORNE SUBSTANCES, WHICH MAY BE HARMFUL OR INJURIOUS TO HUMAN HEALTH, WELFARE OR SAFETY, OR TO ANIMALS OR PLANT LIFE.

III. MAINTENANCE

- 1. MAINTENANCE PROGRAM**
- 1.1. THE SITE SUPERINTENDENT, OR HIS/HIGHER REPRESENTATIVE, SHALL MAKE VISUAL INSPECTIONS OF ALL MECHANICAL CONTROLS AND NEWLY STABILIZED AREAS (I.E. SEEDED AND MULCHED AND/OR SODDED AREAS) ON A DAILY BASIS, ESPECIALLY AFTER HEAVY RAINFALL EVENT TO INSURE THAT ALL CONTROLS ARE MAINTAINED AND PROPERLY FUNCTIONING. ANY DAMAGED CONTROLS SHALL BE REPAIRED PRIOR TO THE END OF THE WORK DAY INCLUDING RE-SEEDING AND MULCHING OR RE-SODDING IF NECESSARY.
- 1.2. EROSION CONTROL MEASURES WILL BE MAINTAINED AT ALL TIMES. IF FULL IMPLEMENTATION OF THE APPROVED PLAN DOES NOT PROVIDE FOR EFFECTIVE EROSION CONTROL, ADDITIONAL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE IMPLEMENTED TO CONTROL OR TREAT THE SEDIMENT SOURCE. ALL DRAINAGE SWALES, POCKETS, DEPRESSION, LOW LINES, AND OUTLET DITCHES SHALL BE MAINTAINED AT ALL TIMES. SETTLEMENT OR WASHING THAT MAY OCCUR SHALL BE REPAIRED BY THE CONTRACTOR. SEDIMENT WILL BE REMOVED FROM BEHIND THE SEDIMENT FENCE WHEN IT REACHES 1/3 THE HEIGHT OF THE FENCE. THE SEDIMENT FENCE WILL BE REPAIRED AS NECESSARY TO MAINTAIN AN EFFECTIVE BARRIER, MAINTAIN THE CONSTRUCTION EXIT IN A CONDITION TO PREVENT MUD OR SEDIMENT FROM LEAVING THE SITE. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE. IMMEDIATELY REMOVE ALL OBJECTIONABLE MATERIALS, WASHED, OR TRACKED INTO PUBLIC ROADWAYS, REESED AND MULCH AREA WHERE SEEDING EMERGENCE IS POOR, OR WHERE EROSION OCCURS. PROTECT FROM TRAFFIC AS MUCH AS POSSIBLE. INSPECT ALL MULCHES PERIODICALLY, AND AFTER RAINSTORMS TO CHECK FOR EROSION, DISLOCATION OR FAILURE. IF WASHOUT OCCURS, REPAIR THE SLOPE GRADE, REESED AND REINSTALL MULCH. FOLLOW THE CONSTRUCTION SEQUENCE THROUGHOUT THE PROJECT DEVELOPMENT. WHEN CHANGES IN CONSTRUCTION ACTIVITIES ARE NEEDED, AMEND TO THE SEQUENCE SCHEDULE IN ADVANCE TO MAINTAIN MANAGEMENT CONTROL. IF MAJOR CHANGES ARE NECESSARY, SEND A COPY OF THE MODIFIED SCHEDULE TO THE ENGINEER, SEDIMENT AND EROSION CONTROL MEASURES WILL REMAIN IN PLACE AND BE MAINTAINED UNTIL THE DISTURBED AREAS ARE STABILIZED.
- 2. SILT FENCE**
- SILT FENCES WILL BE MONITORED DURING CONSTRUCTION. ANY SILT FENCE WHICH IS NOT FUNCTIONING PROPERLY WILL BE PROMPTLY REPAIRED. CLEAN OUT THE SILT FENCE WHEN IT REACHES 1/3 THE HEIGHT OF THE FENCE OR REPLACE WITH FUNCTIONAL SILT FENCE WITHIN 24 HOURS. USE OF HOSES AND WATER TO FLUSH THE SEDIMENT INTO THE STORM INLETS IS UNACCEPTABLE.
- 3. SEDIMENTATION BASINS**
- SEDIMENTATION BASINS WHICH ARE AT 50% USED CAPACITY OR APPROACHING SUCH CAPACITY SHALL BE RE-EXCAVATED TO ORIGINAL DIMENSIONS AND THE SILT PROPERLY DISPOSED OF.
- 4. SEDIMENT LOGS/ROLLS**
- SEDIMENT LOGS/ROLLS OR OTHER CONTROL MEASURES WHICH BEGIN TO DISINTEGRATE OR FUNCTION INEFFECTIVELY SHALL BE PROMPTLY REPLACED.
- 5. VEGETATION COVER**
- ANY VEGETATION COVER SERVING TO STABILIZE DISTURBED SOILS WHICH IS ITSELF DISTURBED SHALL IMMEDIATELY BE REPLACED.
- 6. CONSTRUCTION ENTRANCE**
- MAINTAIN ROCK CONSTRUCTION ENTRANCE AND CLEAN ADJACENT ROADS OF ANY MUD TRACKED ONTO THEM.

IV. INSPECTIONS

1. QUALIFIED PERSONNEL WILL INSPECT DISTURBED AREAS OF THE CONSTRUCTION SITE. AREAS USED FOR STORAGE OF MATERIALS THAT ARE EXPOSED TO PRECIPITATION THAT HAVE NOT BEEN FINALLY STABILIZED, STRUCTURAL CONTROL MEASURES AND LOCATIONS WHERE VEHICLES ENTER OR EXIT THE SITE AT LEAST EVERY SEVEN CALENDAR DAYS. WHERE SITES HAVE BEEN FINALLY STABILIZED SUCH INSPECTIONS SHALL BE CONDUCTED AT LEAST EVERY MONTH DURING THE WARRANTY PERIOD.
2. DISTURBED AREAS AND AREAS USED FOR STORAGE OF MATERIALS THAT ARE EXPOSED TO PRECIPITATION SHALL BE INSPECTED FOR EVIDENCE OF, OR THE POTENTIAL FOR, POLLUTANTS ENTERING THE DRAINAGE SYSTEM. EROSION AND SEDIMENT CONTROL MEASURES IDENTIFIED IN THE PLAN SHALL BE OBSERVED TO ENSURE THAT THEY ARE OPERATING CORRECTLY. WHERE DISCHARGE LOCATIONS OR POINTS ARE ACCESSIBLE, THEY SHALL BE INSPECTED TO ASCERTAIN WHETHER EROSION CONTROL MEASURES ARE EFFECTIVE IN PREVENTING SIGNIFICANT IMPACTS TO RECEIVING WATERS. LOCATIONS WHERE VEHICLES ENTER OR EXIT THE SITE SHALL BE INSPECTED FOR EVIDENCE OF OFFSITE SEDIMENT TRACKING.
3. A WRITTEN REPORT SUMMARIZING THE SCOPE OF THE INSPECTION, NAME(S) AND QUALIFICATIONS OF PERSONNEL MAKING THE INSPECTION, THE DATE(S) OF THE INSPECTION, WEATHER INFORMATION FOR THE PERIOD SINCE THE LAST INSPECTION OR SINCE COMMENCEMENT OF CONSTRUCTION ACTIVITY) INCLUDING A BEST ESTIMATE OF THE BEGINNING OF EACH STORM EVENT, DURATION OF EACH STORM EVENT, APPROXIMATE AMOUNT OF RAINFALL FOR EACH STORM EVENT, (IN INCHES) AND WHETHER ANY DISCHARGES OCCURRED, LOCATION(S) OF DISCHARGES OF SEDIMENT OR OTHER POLLUTANTS FROM THE SITE, LOCATION(S) OF BMP'S THAT NEED MAINTENANCE, LOCATION(S) OF BMP'S THAT FAILED TO OPERATE AS DESIGNED OR PROVED INADEQUATE FOR A PARTICULAR LOCATION, LOCATION(S) WHERE ADDITIONAL BMP'S ARE NEEDED THAT DID NOT EXIST AT THE TIME OF INSPECTION AND ANY CORRECTIVE ACTION REQUIRED INCLUDING ANY CHANGES TO SWPPP NECESSARY AND IMPLEMENTATION DATES.
4. THE REPORT SHALL BE MAINTAINED AT LEAST THREE YEARS FROM THE DATE THE SITE IS FINALLY STABILIZED. THE REPORT MUST BE SIGNED AND SHALL CONTAIN A CERTIFICATION THAT THE FACILITY IS IN COMPLIANCE WITH THE STORM WATER POLLUTION PREVENTION PLAN AND THE NPDES PERMIT REFERENCED ABOVE. THE CONTRACTOR SHALL MAINTAIN THIS REPORT. THE REPORT SHALL BE SUBMITTED TO THE ENGINEER AND OWNER.

V. LONG TERM MAINTENANCE OF DRAINAGE AND STORM WATER MANAGEMENT SYSTEM

THE ROADS AND DRAINAGE SYSTEM WILL BE OWNED AND MAINTAINED BY KIAWAH RESORT ASSOCIATES, LP AFTER CONSTRUCTION IS COMPLETE AND UNTIL SUCH TIME AS THE OWNERSHIP IS TURNED OVER TO A SUBSEQUENT NEW ENTITY.

VI. SC DHEC STANDARD NOTES

1. IF NECESSARY, SLOPES WHICH EXCEED EIGHT (8) VERTICAL FEET SHOULD BE STABILIZED WITH SYNTHETIC OR VEGETATIVE MATS, IN ADDITION TO GRASSING / HYDROSEEDING. IT MAY BE NECESSARY TO INSTALL TEMPORARY EROSION CONTROL SUPPLIERS.
2. STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICABLE IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES ARE CEASING OR CEASING TO CEASE. THERE SHALL IN NO CASE MORE THAN FOURTEEN (14) DAYS AFTER WORK HAS CEASED, EXCEPT AS STATED BELOW.
- 2.1. WHERE STABILIZATION BY THE 14TH DAY IS PRECLUDED BY SNOW COVER OR FROZEN GROUND CONDITIONS STABILIZATION MEASURES MUST BE INITIATED AS SOON AS PRACTICABLE.
 - 2.2. WHERE CONSTRUCTION ACTIVITY ON A PORTION OF THE SITE IS TEMPORARILY CEASED, AND EARTH-DISTURBING ACTIVITIES WILL BE RESUMED WITHIN 14 DAYS, TEMPORARY STABILIZATION MEASURES DO NOT HAVE TO BE INITIATED ON THAT PORTION OF THE SITE.
3. ALL SEDIMENT AND EROSION CONTROL DEVICES SHALL BE INSPECTED ONCE EVERY CALENDAR WEEK. IF PERIODIC INSPECTION OR OTHER INFORMATION INDICATES THAT A BMP HAS BEEN INAPPROPRIATELY OR INCORRECTLY INSTALLED, THE PERMITTEE MUST ADDRESS THE NECESSARY REPLACEMENT OR MODIFICATION REQUIRED TO CORRECT THE BMP WITHIN 48 HOURS OF IDENTIFICATION.
4. PROVIDE SILT FENCE AND/OR OTHER CONTROL DEVICES, AS MAY BE REQUIRED, TO CONTROL SOIL EROSION DURING UTILITY CONSTRUCTION. ALL DISTURBED AREAS SHALL BE CLEANED, GRADED AND STABILIZED WITH GRASSING IMMEDIATELY AFTER THE UTILITY INSTALLATION. ELL COVER, AND TEMPORARY SEEDING AT THE END OF EACH DAY ARE RECOMMENDED. IF WATER IS ENCOUNTERED WHILE TRENCHING, THE WATER SHOULD BE FILTERED TO REMOVE ANY SEDIMENTS BEFORE BEING PUMPED INTO ANY WATERS OF THE STATE.
5. ALL EROSION CONTROL DEVICES SHALL BE PROPERLY MAINTAINED DURING ALL PHASES OF CONSTRUCTION UNTIL THE COMPLETION OF ALL CONSTRUCTION ACTIVITIES AND ALL DISTURBED AREAS HAVE BEEN STABILIZED. ADDITIONAL CONTROL DEVICES MAY BE REQUIRED DURING CONSTRUCTION IN ORDER TO CONTROL EROSION AND/OR SITE SEDIMENTATION. ALL TEMPORARY CONTROL DEVICES SHALL BE REMOVED ONCE CONSTRUCTION IS COMPLETE AND

VII. EROSION, SEDIMENTATION & POLLUTION CONTROL NOTES

1. THE IMPLEMENTATION OF THESE EROSION SEDIMENT CONTROL (ESC) PLANS AND THE CONSTRUCTION, MAINTENANCE, REPLACEMENT, AND UPGRADES OF THESE ESC FACILITIES IS THE RESPONSIBILITY OF THE CONTRACTOR UNTIL ALL CONSTRUCTION IS COMPLETED AND APPROVED AND VEGETATION/LANDSCAPING IS ESTABLISHED.
2. THE ESC FACILITIES SHOWN ON THIS PLAN MUST BE CONSTRUCTED IN CONJUNCTION WITH ALL CLEARING AND GRADING ACTIVITIES, AND IN SUCH A MANNER AS TO INSURE THAT SEDIMENT AND SEDIMENT LADEN WATER DO NOT ENTER THE DRAINAGE SYSTEM, ROADWAYS, OR VIOLATE APPLICABLE WATER STANDARDS.
3. THE ESC FACILITIES SHOWN ON THIS PLAN ARE THE MINIMUM REQUIREMENTS FOR ANTICIPATED SITE CONDITIONS, DURING THE CONSTRUCTION PERIOD. THESE ESC FACILITIES SHALL BE UPGRADED AS NEEDED FOR UNEXPECTED STORM EVENTS AND TO ENSURE THAT SEDIMENT AND SEDIMENT LADEN WATER DO NOT LEAVE THE SITE.
4. THE ESC FACILITIES SHALL BE INSPECTED DAILY BY THE CONTRACTOR AND MAINTAINED AS NECESSARY TO ENSURE THEIR CONTINUED FUNCTIONING.
5. THE ESC FACILITIES ON INACTIVE SITES SHALL BE INSPECTED AND MAINTAINED A MINIMUM OF ONCE A MONTH OR WITHIN THE 24 HOURS FOLLOWING A MAJOR STORM EVENT.
6. AT NO TIME SHALL MORE THAN ONE FOOT OF SEDIMENT BE ALLOWED TO ACCUMULATE WITHIN A CATCH BASIN. ALL CATCH BASINS AND CONVEYANCE LINES SHALL BE CLEANED PRIOR TO PAVING AND PRIOR TO FINAL INSPECTION. THE CLEANING OPERATION SHALL NOT FLUSH SEDIMENT LADEN WATER INTO THE DOWNSTREAM SYSTEM.
7. STABILIZED CONSTRUCTION ENTRANCES SHALL BE INSTALLED AT THE BEGINNING OF CONSTRUCTION AND MAINTAINED FOR THE DURATION OF THE PROJECT. ADDITIONAL MEASURES MAY BE REQUIRED TO INSURE THAT ALL PAVED AREAS ARE KEPT CLEAN FOR THE DURATION OF THE PROJECT.
8. BEFORE COMMENCING ANY LAND DISTURBING ACTIVITY, THE EXISTING STORM WATER INLET(S) THAT RECEIVING RUNOFF FROM THE PROPOSED WORK AREA SHALL BE PROTECTED. THE TEMPORARY INLET PROTECTION MUST REMAIN IN PLACE UNTIL THE CONSTRUCTION ACTIVITY IS COMPLETED. THE STREET HAS BEEN SWEEPED AND ANY EXPOSED SOILS ARE STABILIZED. THE CONTRACTOR IS ALSO RESPONSIBLE FOR REMOVING ANY TEMPORARY INLET PROTECTION INSTALLED. AFTER ALL DISTURBED AREAS ARE STABILIZED, TEMPORARY PROTECTION OF THE INLETS MAY BE ACCOMPLISHED BY ONE OR MORE OF THE FOLLOWING:
- 8.1. USE OF GRAVEL BAGS TO FILTER THE SEDIMENT FROM ANY RUNOFF. TO MAKE A GRAVEL BAG, USE A BAG MADE OF GEOTEXTILE FABRIC (NOT BURLAP) AND FILL WITH EITHER 3/4 INCH ROCK OR 1/4 INCH PEA GRAVEL.
 - 8.2. USE OF SEDIMENT LOGS TO FILTER THE SEDIMENT FROM ANY RUNOFF (AVAILABLE THROUGH LOCAL EROSION CONTROL SUPPLIERS).
 - 8.3. USE OF ABOVE OR UNDER-GRATE FILTER BAGS OR DEVICES TO FILTER THE SEDIMENT FROM ANY RUNOFF (AVAILABLE THROUGH EROSION CONTROL SUPPLIERS).
9. WATER MAY NOT BE DISCHARGED IN A MANNER THAT CAUSES EROSION, SEDIMENTATION, OR FLOODING ON THE SITE OR DOWNSTREAM PROPERTIES, IN THE RECEIVING CHANNELS, OR IN ANY STORM WATER INLET. WHEN SITE DEWATERING, WATER PUMPED FROM THE SITE, INCLUDING TRENCHES, SHALL BE TREATED BY ONE OF THE FOLLOWING:
- 9.1. TEMPORARY SEDIMENTATION BASINS
 - 9.2. SEDIMENT FILTERING BAGS
10. THE CONTRACTOR SHALL VERIFY THE SIZE AND LOCATION OF ALL EXISTING UTILITIES. EXISTING UTILITIES ARE ALL UTILITIES THAT EXIST ON THE PROJECT IN AN ORIGINAL, RELOCATED OR NEWLY INSTALLED POSITION. THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR THE COST OF REPAIRS TO DAMAGED UNDERGROUND OR OVERHEAD FACILITIES, EVEN IF THE UTILITY IS NOT SHOWN ON THE SITE DEVELOPMENT PLANS. THE CONTRACTOR SHALL CONTACT THE LOCAL UTILITIES PROTECTION CENTER TO COORDINATE THE MARKING OF EXISTING UTILITY LINES A MINIMUM OF 96 HOURS PRIOR TO COMMENCEMENT OF ANY WORK.
11. THE CONTRACTOR SHALL FLUSH ALL INLETS AND PIPE AT THE COMPLETION OF CONSTRUCTION TO REMOVE SILT AND DEBRIS. THE CLEANING AND FLUSHING OF INLETS AND PIPE (EXISTING AND PROPOSED) SHALL BE CONSIDERED PART OF THE COST FOR THE PROJECT.
12. EGRESS FROM THE SITE SHALL BE CONTROLLED SUCH THAT VEHICLES LEAVING THE SITE MUST TRAVERSE CONSTRUCTION EXITS TO REMOVE MUD FROM TIRES.
13. SCHEDULE CONSTRUCTION ACTIVITIES TO MINIMIZE THE EXPOSED AREA AND DURATION OF

VIII. HOUSEKEEPING

- THESE PERFORMANCE STANDARDS APPLY TO ALL SITES.
- 1.1. PETROLEUM PRODUCTS: INCLUDING OIL, GASOLINE, LUBRICANTS AND ASPHALTIC SUBSTANCES.
 - 1.2. STORE IN COVERED AREAS PROTECTED WITH DIKES
 - 2. SPILLS: PREVENTION AND RESPONSE.
 - 2.1. STORE AND HANDLE MATERIALS TO PREVENT SPILLS
 - 2.2. TIGHTLY SEALED CONTAINERS, NEAT AND SECURE STACKING, ETC.
 - 2.3. REDUCE STORM WATER CONTACT IF SPILL OCCURS
 - 2.3.1. CLEANUP PROCEDURES SHOULD BE CLEARLY POSTED.
 - 2.3.2. CLEANUP MATERIALS SHOULD BE READILY AVAILABLE.
 - 2.3.3. STOP THE SOURCE
 - 2.3.4. CONTAIN THE SPILL
3. NON-STORM WATER DISCHARGES
- 3.1. DISCHARGES FROM FIRE-FIGHTING ACTIVITIES
 - 3.2. FIRE HYDRANT FLUSHINGS
 - 3.3. WATERS USED TO WASH VEHICLES WHERE DETERGENTS ARE NOT USED
 - 3.4. WATER USED TO CONTROL DUST
 - 3.5. POTABLE WATER INCLUDING UNCONTAMINATED WATER LINE FLUSHINGS
 - 3.6. ROUTINE EXTERNAL BUILDING WASH DOWN THAT DOES NOT USE DETERGENTS
 - 3.7. PAVEMENT WASH WATERS WHERE SPILLS OR LEAKS OF TOXIC OR HAZARDOUS MATERIALS HAVE NOT OCCURRED (UNLESS ALL SPILLED MATERIAL HAS BEEN REMOVED) AND WHERE DETERGENTS ARE NOT USED
 - 3.8. UNCONTAMINATED AIR CONDITIONING OR COMPRESSOR CONDENSATE
 - 3.9. UNCONTAMINATED GROUND WATER OR SPRING WATER
 - 3.10. FOUNDATION OR FOOTING DRAINS WHERE FLOWS ARE NOT CONTAMINATED WITH PROCESS MATERIALS SUCH AS SOLVENTS
 - 3.11. UNCONTAMINATED EXCAVATION DEWATERING
 - 3.12. LANDSCAPE IRRIGATION
 - 3.13. DECHLORINATED SWIMMING POOL DISCHARGES.
4. CONSTRUCTION WASTES: DEMOLITION RUBBLE, PACKAGING MATERIALS, SCRAP BUILDING SUPPLIES, ETC.
- 4.1. SELECT A DESIGNATED WASTE COLLECTION AREA
 - 4.2. PROVIDE LIDS FOR WASTE CONTAINERS
 - 4.3. WHEN POSSIBLE LOCATE CONTAINERS IN COVERED AREA
 - 4.4. MAINTAIN CONSISTENT REMOVAL SCHEDULE FOR WASTE
5. PESTICIDES: REDUCE THE AMOUNT OF PESTICIDES AVAILABLE FOR CONTACT WITH STORM WATER.
- 5.1. STORE IN A DRY COVERED AREA
 - 5.2. INSTALL CURBS OR DIKES AROUND STORAGE AREA TO PROTECT AGAINST SPILLS
 - 5.3. STRICTLY FOLLOW RECOMMENDED APPLICATION RATES
6. FERTILIZERS AND DETERGENTS: REDUCE THE AMOUNT OF FERTILIZERS AND DETERGENTS AVAILABLE FOR CONTACT WITH STORM WATER.
- 6.1. LIMIT APPLICATION OF FERTILIZERS TO THE MINIMUM NEEDED
 - 6.2. APPLY MORE FREQUENTLY BUT AT LOWER APPLICATION RATES
 - 6.3. LIMIT USE OF DETERGENTS ON-SITE
 - 6.4. DO NOT DISCHARGE WASH WATER INTO STORM WATER SYSTEM
 - 6.5. MAINTAIN STRUCTURAL AND VEGETATIVE BMPS
 - 6.6. APPLY ACCORDING TO SOIL TEST RECOMMENDATIONS PRIOR TO SEEDING.

IX. GRASSING NOTES

- EXPOSURE. IN SCHEDULING, TAKE INTO ACCOUNT THE SEASON AND THE WEATHER FORECAST.
- THE SITE IS STABILIZED.
6. THE CONTRACTOR MUST TAKE NECESSARY ACTION TO MINIMIZE THE TRACKING OF MUD ONTO THE PAVED ROADWAY FROM CONSTRUCTION AREAS AND THE GENERATION OF DUST. THE CONTRACTOR SHALL DAILY REMOVE MUD/SOIL FROM PAVEMENT AS MAY BE REQUIRED.
7. RESIDENTIAL SUBDIVISIONS REQUIRE EROSION CONTROL FEATURES FOR INFRASTRUCTURE AS WELL AS FOR INDIVIDUAL LOT CONSTRUCTION. INDIVIDUAL PROPERTY OWNERS SHALL FOLLOW THESE PLANS DURING CONSTRUCTION OR OBTAIN APPROVAL OF AN INDIVIDUAL PLAN IN ACCORDANCE WITH S. C. REG. 72-300 AND SCR100000.
8. TEMPORARY DIVERSION BERMS AND/OR DITCHES WILL BE PROVIDED AS NEEDED DURING CONSTRUCTION TO PROTECT WORK AREAS FROM UPSLOPE RUNOFF AND/OR TO DIVERT SEDIMENT LADEN WATER TO APPROPRIATE TRAPS OR STABLE OUTLETS.
9. ALL WATERS OF THE STATE (WOS), INCLUDING WETLANDS, ARE TO BE FLAGGED OR OTHERWISE CLEARLY MARKED IN THE FIELD. A DOUBLE ROW OF SILT FENCE IS TO BE INSTALLED IN ALL AREAS WHERE A 50-FOOT BUFFER CAN NOT BE MAINTAINED BETWEEN THE DISTURBED AREA AND ALL WOS. A 10-FOOT BUFFER SHOULD BE MAINTAINED BETWEEN THE LAST ROW OF SILT FENCE AND ALL WOS.
10. LITTER, CONSTRUCTION DEBRIS, OILS, FUELS, AND BUILDING PRODUCTS WITH SIGNIFICANT POTENTIAL FOR IMPACT (SUCH AS STOCKPILES OF FRESHLY TREATED LUMBER) AND CONSTRUCTION CHEMICALS THAT COULD BE EXPOSED TO STORM WATER MUST BE PREVENTED FROM BECOMING A POLLUTANT SOURCE IN STORM WATER DISCHARGES.
11. A COPY OF THE SWPPP, INSPECTION RECORDS AND RAINFALL DATA MUST BE RETAINED AT THE CONSTRUCTION SITE OR A NEARBY LOCATION EASILY ACCESSIBLE DURING NORMAL BUSINESS HOURS. FROM THE DATE OF COMMENCEMENT OF CONSTRUCTION ACTIVITIES TO THE DATE THAT FINAL STABILIZATION IS REACHED.
12. INITIATE STABILIZATION MEASURES ON ANY EXPOSED STEEP SLOPE (3H:1V OR GREATER) WHERE LAND DISTURBING ACTIVITIES HAVE PERMANENTLY OR TEMPORARILY CEASED, AND WILL NOT RESUME FOR A PERIOD OF 7 CALENDAR DAYS.
13. MINIMIZE SOIL COMPACTION IN AREAS NOT UNDER PAVEMENTS AND /OR STRUCTURES AND, UNLESS INFEASIBLE, PRESERVE TOPSOIL.
14. MINIMIZE THE DISCHARGE OF POLLUTANTS FROM EQUIPMENT AND VEHICLE WASHING. WHEEL WASH WATER AND OTHER WASH WATERS, WASH WATERS MUST BE TREATED IN A SEDIMENT BASIN OR ALTERNATIVE CONTROL THAT PROVIDES EQUAL OR BETTER TREATMENT PRIOR TO DISCHARGE.
15. MINIMIZE THE DISCHARGE OF POLLUTANTS FROM DEWATERING OF TRENCHES AND EXCAVATED AREAS. THESE DISCHARGES ARE TO BE ROUTED THROUGH APPROPRIATE BMPS (SEDIMENT BASIN, FILTER BAG, ETC.).
16. THE FOLLOWING DISCHARGES ARE PROHIBITED:
- 16.1. WASTEWATER FROM WASHOUT OF CONCRETE, UNLESS MANAGED BY AN APPROPRIATE CONTROL.
 - 16.2. WASTEWATER FROM WASHOUT AND CLEANOUT OF OF STUCCO, PAINT, FORM RELEASE OILS, CURING COMPOUNDS AND OTHER CONSTRUCTION MATERIALS.
 - 16.3. FUELS, OILS OR OTHER POLLUTANTS USED IN VEHICLE AND EQUIPMENT OPERATION AND MAINTENANCE; AND
 - 16.4. SOAPS OR SOLVENTS USED IN VEHICLE AND EQUIPMENT WASHING.
17. AFTER CONSTRUCTION ACTIVITIES BEGIN, INSPECTIONS MUST BE CONDUCTED AT A MINIMUM OF AT LEAST ONCE EVERY CALENDAR WEEK AND MUST BE CONDUCTED UNTIL FINAL STABILIZATION IS REACHED ON ALL AREAS OF THE CONSTRUCTION SITE.
18. IF EXISTING BMPS NEED TO BE MODIFIED OR IF ADDITIONAL BMPS ARE NECESSARY TO COMPLY WITH THE REQUIREMENTS OF PERMIT SCR100000 AND/OR SC'S WATER QUALITY STANDARDS, IMPLEMENTATION MUST BE COMPLETED BEFORE THE NEXT STORM EVENT WHENEVER PRACTICABLE. IF IMPLEMENTATION BEFORE THE NEXT STORM EVENT IS IMPRACTICABLE, THE SITUATION MUST BE DOCUMENTED IN THE SWPPP AND ALTERNATIVE BMP'S MUST BE IMPLEMENTED AS SOON AS REASONABLY POSSIBLE.
19. A PRE-CONSTRUCTION CONFERENCE MUST BE HELD FOR EACH CONSTRUCTION SITE WITH AN APPROVED ON-SITE SWPPP PRIOR TO THE IMPLEMENTATION OF CONSTRUCTION ACTIVITIES. FOR NON-LINEAR PROJECTS THAT DISTURB 10 ACRES OR MORE, THIS CONFERENCE MUST BE HELD ON-SITE UNLESS THE DEPARTMENT HAS APPROVED OTHERWISE.

X. PERMANENT STABILIZATION

- NEWLY SEEDED OR SODDED AREAS MUST BE PROTECTED FROM VEHICLE TRAFFIC, EXCESSIVE PEDESTRIAN TRAFFIC, AND CONCENTRATED RUNOFF UNTIL THE VEGETATION IS WELL ESTABLISHED. IF NECESSARY, AREAS MUST BE RE-WORKED AND RE-STABILIZED IF GERMINATION IS SPARSE, PLANT COVERAGE IS SPOTTY, OR TOPSOIL EROSION IS EVIDENT. ONE OR MORE OF THE FOLLOWING MAY APPLY TO THE SITE.
- 4.1. SEEDED AREAS
 - FOR SEEDED AREAS, PERMANENT STABILIZATION MEANS A 90% COVER OF THE DISTURBED AREA WITH MATURE, HEALTHY PLANTS WITH NO EVIDENCE OF WASHING OR RILLING OF THE TOPSOIL.
 - 4.2. SODDED AREAS
 - FOR SODDED AREAS, PERMANENT STABILIZATION MEANS THE COMPLETE BINDING OF THE SOD ROOTS INTO THE APPROVED MULCH MATERIAL.
 - 4.3. PERMANENT MULCH
 - FOR MULCHED AREAS, PERMANENT MULCHING MEANS TOTAL COVER OF THE EXPOSED AREA WITH AN APPROVED MULCH MATERIAL.
 - 4.4. RIPRAP
 - FOR AREAS STABILIZED WITH RIPRAP, PERMANENT STABILIZATION MEANS THAT SLOPES STABILIZED WITH RIPRAP HAVE AN APPROPRIATE BACKING OF AN APPROVED GEOTEXTILE TO PREVENT SOIL MOVEMENT FROM BEHIND THE RIPRAP.
 - 4.5. DITCHES, CHANNELS, AND SWALES
 - FOR OPEN CHANNELS, PERMANENT STABILIZATION MEANS THE CHANNEL IS STABILIZED WITH MATURE VEGETATION AT LEAST THREE INCHES IN HEIGHT, WITH WELL-GRADED RIPRAP LINING, OR WITH ANOTHER NON-EROSIVE LINING CAPABLE OF WITHSTANDING THE ANTICIPATED FLOW VELOCITIES AND FLOW DEPTHS WITHOUT RELIANCE ON CHECK DAMS TO SLOW FLOW. THERE MUST BE NO EVIDENCE OF SLUMPING OF THE LINING, UNDERCUTTING OF THE BANKS, OR DOWN CUTTING OF THE CHANNEL.

XI. FERTILIZER REQUIREMENTS

1. TEMPORARY SEEDING FERTILIZER
- APPLY A MINIMUM OF 500 LBS PER ACRE OF A COMPLETE 10-10-10 FERTILIZER (11.5 POUNDS PER 1000 SQUARE FEET) OR EQUIVALENT DURING TEMPORARY SEEDING OF GRASSES UNLESS A SOIL TEST INDICATES A DIFFERENT REQUIREMENT. INCORPORATE FERTILIZER AND LIME (IF USED) INTO THE TOP 4-6 INCHES OF THE SOIL BY DISKING OR OTHER MEANS WHERE CONDITIONS ALLOW. LIME IS NOT REQUIRED FOR TEMPORARY SEEDING UNLESS A SOIL TEST SHOWS THAT THE SOIL PH IS BELOW 5.0. IT IS DESIRABLE TO APPLY LIME DURING THE TEMPORARY SEEDING OPERATION TO BENEFIT THE LONG-TERM PERMANENT SEEDING. APPLY A MINIMUM OF 1.5 TONS OF LIME / ACRE (70 LBS. / 1000 SQ. FT.).
2. PERMANENT SEEDING FERTILIZER
- APPLY A MINIMUM OF 1000 LBS PER ACRE OF A COMPLETE 10-10-10 FERTILIZER (23 POUNDS PER 1000 SQUARE FEET) OR EQUIVALENT DURING PERMANENT SEEDING OF GRASSES UNLESS A SOIL TEST INDICATES A DIFFERENT REQUIREMENT. INCORPORATE FERTILIZER AND LIME (IF USED) INTO THE TOP 4-6 INCHES OF THE SOIL BY DISKING OR OTHER MEANS WHERE CONDITIONS ALLOW. DO NOT MIX THE LIME AND THE FERTILIZER PRIOR TO THE FIELD APPLICATION. UNLESS A SPECIFIC SOIL TEST INDICATES OTHERWISE, APPLY 1 & 1/2 TONS OF GROUND COARSE TEXTURED AGRICULTURAL LIMESTONE PER ACRE (70 LBS. / 1000 SQ. FT.).

XII. SWPP PREPARER CERTIFICATION

I HAVE PLACED MY SIGNATURE AND SEAL ON THE DESIGN DOCUMENTS SUBMITTED SIGNIFYING THAT I ACCEPT RESPONSIBILITY FOR THE DESIGN OF THE SYSTEM. FURTHER, I CERTIFY TO THE BEST OF MY KNOWLEDGE AND BELIEF THAT THE DESIGN IS CONSISTENT WITH THE REQUIREMENTS OF TITLE 48, CHAPTER 14 OF THE CODE OF LAWS OF SC, 1976 AS AMENDED, PURSUANT TO REGULATION 72-300 ET SEQ. (IF APPLICABLE), AND IN ACCORDANCE WITH THE TERMS AND CONDITIONS OF SCR100000.

1. SOD:
- ALL SOD SHALL BE NURSERY GROWN AS CLASSIFIED IN THE ASPS GSS. MACHINE CUT SOD AT A UNIFORM THICKENS OF 3/4" WITHIN A TOLERANCE OF 1/4". EXCLUDING TOP GROWTH AND THATCH, EACH INDIVIDUAL SOD PIECE SHALL BE STRONG ENOUGH TO SUPPORT ITS OWN WEIGHT WHEN LIFTED BY THE ENDS. BROKEN PEGS, IRREGULARLY SHAPED PIECES, AND TORN OR UNEVEN ENDS WILL BE REJECTED. WOOD PEGS AND /OR WIRE STAPLES SHALL REPLACE SOD WITH AN EQUAL SOD COMPOSITION AS THAT WHICH IS EXISTING. IF NO SOD TYPE EXIST, THEN THE FOLLOWING SOD COMPOSITION SHALL BE USED.
2. SODDING SCHEDULE:
- LAY SOD FROM MAY 1 TO SEPTEMBER 15 FOR SPRING PLANTING AND FROM SEPTEMBER 15 TO NOVEMBER 1 FOR FALL PLANTING.
3. SEED:
- ALL SEED SHALL CONFORM TO ALL STATE LAWS AND TO ALL REQUIREMENTS AND REGULATIONS OF THE SOUTH CAROLINA DEPARTMENT OF AGRICULTURE. THE SEVERAL VARIETIES OF SEED SHALL BE INDIVIDUALLY PACKAGED OR BAGGED, AND TAGGED TO SHOW NAME OF SEED, NET WEIGHT, ORIGIN, GERMINATION LOT NUMBER, AND OTHER INFORMATION REQUIRED BY THE DEPARTMENT OF AGRICULTURE.
- 3.1. PENNSETUM GLAUCUM (BROWNTOP MILLET): TESTING 98 PERCENT PURITY AND 85 PERCENT GERMINATION
 - 3.2. BERMUODA COMMON: TESTING 98 PERCENT PURITY AND 85 PERCENT GERMINATION.
 - 3.3. DOMESTIC ITALIAN RYE: TESTING 98 PERCENT PURITY AND 90 PERCENT GERMINATION.
4. MISCELLANEOUS:
- 4.1. PERMANENT SEEDING SHALL COVER ALL DISTURBED AREA NOT TO BE COVERED BY LANDSCAPE PLANTING BEDS, STRUCTURE, OR PAVEMENT.
 - 4.2. SEED ALL DISTURBED AREAS WITHIN SEVEN DAYS OF FINAL GRADING AND TEMPORARY SEED/MULCH ALL AREAS THAT WILL BE LEFT INACTIVE FOR MORE THAN FOURTEEN (14) DAYS.
 - 4.3. ALL PERMANENT GRASS PLANTINGS SHALL BE MULCHED
 - 4.4. CENTPEDEE SOD CAN BE USED AS PERMANENT COVER ANYTIME EXCEPT JUNE THRU OCTOBER
 - 4.5. IF GRASSING OCCURS DURING A MONTH REQUIRING TEMPORARY COVER, THE CONTRACTOR SHALL APPLY PERMANENT COVER (IN ADDITION TO THE TEMPORARY COVER) AT THE APPROPRIATE TIME AT NO NO ADDITIONAL COST. THE CONTRACTOR MUST ACHIEVE A STRAND OF PERMANENT GRASS WITH AT LEAST 95% COVER. BARE SPOTS CAN NOT BE MORE THAN 1 INCH SQUARE IN ANY 10 SF.

- MULCHING IS REQUIRED FOR ALL PERMANENT VEGETATION APPLICATIONS. MULCH APPLIED TO SEEDED AREAS SHALL ACHIEVE 75% SOIL COVER. SELECT THE MULCHING MATERIAL FROM THE FOLLOWING AND APPLY AS INDICATED:
- 20.1. DRY STRAW OR DRY HAY OF GOOD QUALITY AND FREE OF WEED SEEDS CAN BE USED. DRY STRAW SHALL BE APPLIED AT THE RATE OF TWO TONS PER ACRE. DRY HAY SHALL BE APPLIED AT THE RATE OF 2 1/2 TONS PER ACRE.
 - 20.2. WOOD CELLULOSE MULCH OR WOOD PULP FIBER SHALL BE USED WITH HYDRAULIC SEEDING. IT SHALL BE APPLIED AT A RATE OF 500 POUNDS PER ACRE. DRY STRAW OR DRY HAY SHALL BE APPLIED (AT THE RATE INDICATED ABOVE) AFTER HYDRAULIC SEEDING.
 - 20.3. ONE THOUSAND POUNDS OF WOOD CELLULOSE OR WOOD PULP FIBER, WHICH INCLUDES A TACKIFIER, SHALL BE USED WITH HYDRAULIC SEEDING ON SLOPES 3/4:1 OR STEEPER.
 - 20.4. SERICEA LESPEDEZA HAY CONTAINING MATURE SEED SHALL BE APPLIED AT A RATE OF 3 TONS PER ACRE.
 - 20.5. PINE STRAW OR PINE BARK SHALL BE APPLIED AT A THICKNESS OF 3 INCHES FOR BEDDING PURPOSES. OTHER SUITABLE MATERIALS IN SUFFICIENT QUANTITY MAY BE USED WHERE ORNAMENTALS OR OTHER GROUND COVERS ARE PLANTED. THIS IS NOT APPROPRIATE FOR SEEDED AREAS.
 - 20.6. WHEN USING TEMPORARY EROSION CONTROL BLANKETS OR BLACK SOD, MULCH IS NOT REQUIRED.
 - 20.7. ON SLOPES GREATER THAN 10 FEET IN LENGTH AND 4:1 OR STEEPER, USE THE FOLLOWING EROSION CONTROL BLANKETS THAT HAVE BEEN PROPERLY ANCHORED TO THE SLOPE ACCORDING TO THE MANUFACTURER'S INSTRUCTIONS:
 - 2:1 SLOPES OR STEEPER - STRAW/COCONUT BLANKET OR HIGH VELOCITY WOOD BLANKET
 - 3:1 SLOPES OR STEEPER - WOOD OR STRAW BLANKET WITH NET ON BOTH SIDES
 - 4:1 SLOPES OR FLATTER - WOOD OR STRAW MULCH BLANKET WITH NET ON ONE SIDE

XII. SWPP PREPARER CERTIFICATION

- THESE PERFORMANCE STANDARDS APPLY TO ALL SITES.
- 1.1. PETROLEUM PRODUCTS: INCLUDING OIL, GASOLINE, LUBRICANTS AND ASPHALTIC SUBSTANCES.
 - 1.2. STORE IN COVERED AREAS PROTECTED WITH DIKES
 - 2. SPILLS: PREVENTION AND RESPONSE.
 - 2.1. STORE AND HANDLE MATERIALS TO PREVENT SPILLS
 - 2.2. TIGHTLY SEALED CONTAINERS, NEAT AND SECURE STACKING, ETC.
 - 2.3. REDUCE STORM WATER CONTACT IF SPILL OCCURS
 - 2.3.1. CLEANUP PROCEDURES SHOULD BE CLEARLY POSTED.
 - 2.3.2. CLEANUP MATERIALS SHOULD BE READILY AVAILABLE.
 - 2.3.3. STOP THE SOURCE
 - 2.3.4. CONTAIN THE SPILL
3. NON-STORM WATER DISCHARGES
- 3.1. DISCHARGES FROM FIRE-FIGHTING ACTIVITIES
 - 3.2. FIRE HYDRANT FLUSHINGS
 - 3.3. WATERS USED TO WASH VEHICLES WHERE DETERGENTS ARE NOT USED
 - 3.4. WATER USED TO CONTROL DUST
 - 3.5. POTABLE WATER INCLUDING UNCONTAMINATED WATER LINE FLUSHINGS
 - 3.6. ROUTINE EXTERNAL BUILDING WASH DOWN THAT DOES NOT USE DETERGENTS
 - 3.7. PAVEMENT WASH WATERS WHERE SPILLS OR LEAKS OF TOXIC OR HAZARDOUS MATERIALS HAVE NOT OCCURRED (UNLESS ALL SPILLED MATERIAL HAS BEEN REMOVED) AND WHERE DETERGENTS ARE NOT USED
 - 3.8. UNCONTAMINATED AIR CONDITIONING OR COMPRESSOR CONDENSATE
 - 3.9. UNCONTAMINATED GROUND WATER OR SPRING WATER
 - 3.10. FOUNDATION OR FOOTING DRAINS WHERE FLOWS ARE NOT CONTAMINATED WITH PROCESS MATERIALS SUCH AS SOLVENTS
 - 3.

TEMPORARY SEEDING - COASTAL

SPECIES	LABS/AC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
SANDY, DROUGHTY SITES													
BROWNTOP MILLET	40												
RYE, GRAIN	56												
RYEGRASS	50												
WELL DRAINED, CLAYEY/LOAMEY SITES													
BROWNTOP MILLET	40												
JAPANESE MILLET	40												
RYE, GRAIN	56												
OATS	75												
RYEGRASS	50												

PERMANENT SEEDING - COASTAL

SPECIES	LABS/AC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
SANDY, DROUGHTY SITES													
BROWNTOP MILLET	10												
BAHIAGRASS	40												
BROWNTOP MILLET	10												
BAHIAGRASS	30												
SERICEA LESPEDEZA	40												
BROWNTOP MILLET	10												
ATLANTIC COASTAL PANICGRASS	PLS												
BROWNTOP MILLET	10												
SWITCHGRASS (ALAMO)	8												
LITTLE BLUESTEM	4												
SERICEA LESPEDEZA	20												
BROWNTOP MILLET	10												
WEeping LOVEGRASS	8												
WELL DRAINED, CLAYEY/LOAMEY SITES													
BROWNTOP MILLET	10												
BAHIAGRASS	40												
RYE, GRAIN	10												
BAHIAGRASS	40												
CLOVER, CRIMSON (ANNUAL)	5												
BROWNTOP MILLET	10												
BAHIAGRASS	30												
SERICEA LESPEDEZA	40												
BROWNTOP MILLET	10												
BERMUDA, COMMON	10												
SERICEA LESPEDEZA	40												
BROWNTOP MILLET	10												
BERMUDA, COMMON	12												
KOBE LESPEDEZA (ANNUAL)	10												
BROWNTOP MILLET	10												
BAHIAGRASS	20												
BERMUDA, COMMON	6												
SERICEA LESPEDEZA	40												
BROWNTOP MILLET	10												
SWITCHGRASS	8												
LITTLE BLUESTEM	PLS												
INDIANGRASS	3												

EROSION CONTROL LEGEND

DESCRIPTION	PLAN SYMBOL
SILT FENCE	
CLEARING LIMITS	CL CL
TREE PROTECTION	
SURFACE ROUGHENING	
TOP SOILING	
TEMPORARY SEEDING	TS
PERMANENT SEEDING	PS
MULCHING	M
EROSION CONTROL BLANKET OR TURF REINFORCEMENT MAT	
FLEXIBLE GROWTH MATRIX	FGM
BONDED FIBER MATRIX	BFM
SODDING	SO
STAKED SOD	
STAKED SOD AROUND INLET	
RIPRAP	
OUTLET PROTECTION - RIP RAP	
OUTLET PROTECTION - ECB OR TRM	

EROSION CONTROL LEGEND

DESCRIPTION	PLAN SYMBOL
ROCK SEDIMENT DIKE	
SEDIMENT TUBE	
ROCK CHECK DAM	
STABILIZED CONSTRUCTION ENTRANCE	
CONCRETE WASHOUT	
STORM DRAIN INLET PROTECTION - TYPE A FILTER FABRIC	A
STORM DRAIN INLET PROTECTION - TYPE A SEDIMENT TUBE	A
STORM DRAIN INLET PROTECTION - TYPE B HARDWARE FABRIC AND STONE	B
STORM DRAIN INLET PROTECTION - TYPE C BLOCK AND GRAVEL	C
STORM DRAIN INLET PROTECTION - TYPE D RIGID INLET FILTER	D
STORM DRAIN INLET PROTECTION - TYPE E SURFACE COURSE CURB INLET FILTER	E
STORM DRAIN INLET PROTECTION - TYPE F INLET TUBE	F
SILT SAC	G

LIST OF ACRONYMS FOR SEDIMENT AND EROSION CONTROL

AASHTO	AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS
AMD	ACRYLAMIDE POLYMER
BFM	BONDED FIBER MATRIX
BMP(S)	BEST MANAGEMENT PRACTICE(S)
CFS	CUBIC FEET PER SECOND
CMP	CORRUGATED METAL PIPE
DHEC	DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL
ECB	EROSION CONTROL BLANKET
EPA	UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
EPPC	EROSION PREVENTION AND SEDIMENTATION CONTROL
FDA	UNITED STATES FOOD AND DRUG ADMINISTRATION
FGM	FLEXIBLE GROWTH MATRIX
HDPE	HIGH DENSITY POLYETHYLENE
MS4	MUNICIPAL SEPARATE STORM SEWER SYSTEM
MSDS	MATERIAL SAFETY DATA SHEETS
NPDES	NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM
PAM	POLYACRYLAMIDE OR POLYMER
RCP	REINFORCED CONCRETE PIPE
SCS	SOIL CONSERVATION SERVICE
SWPPP	STORMWATER POLLUTION PREVENTION PROGRAM
TRM	TURF REINFORCEMENT MAT
VFS	VEGETATED FILTER STRIP

CONSTRUCTION SEQUENCE		
	CONSTRUCTION ACTIVITY	SCHEDULE CONSIDERATION
1	OBTAIN COPIES OF ALL PLAN APPROVALS AND OTHER APPLICABLE PERMITS.	CONTRACTOR TO MAINTAIN OS-SWPPP AT ALL TIMES DURING CONSTRUCTION.
INITIAL PHASE		
2	FLAG THE CLEARING LIMITS, MARK TREES TO BE PROTECTED, AND MARK BUFFER LIMITS FOR PROTECTION.	REVIEW TREE PROTECTION (BARRICADE) WITH OWNER. TAKE PICTURES OF ALL PROTECTED TREES AND LOCATIONS WHERE SITE WORK TIES INTO EXISTING INFRASTRUCTURE TO DOCUMENT PREDEVELOPMENT PROCEDURES.
3	HOLD PRE CONSTRUCTION CONFERENCE AT LEAST ONE WEEK PRIOR TO STARTING CONSTRUCTION. HOLD ADDITIONAL PRE CONSTRUCTION CONFERENCES AS NECESSARY FOR FUTURE WORK.	EACH CONTRACTOR, SUBCONTRACTOR, UTILITY CONTRACTOR, ETC. SHALL ATTEND A PRE CONSTRUCTION CONFERENCE IN PERSON AND EXECUTE A CONTRACTOR CERTIFICATION.
4	INSTALL CONSTRUCTION ACCESS PER THE INITIAL LAND DISTURBANCE PHASE STORMWATER MANAGEMENT PLAN.	STABILIZE BARE AREAS IMMEDIATELY AND INSTALL CONSTRUCTION EXITS / ENTRANCES.
5	LIMITED LAND CLEARING, GRADING, AND INITIAL INSTALLATION OF PERIMETER EROSION CONTROL BMPS INCLUDING SILT FENCE, SEDIMENT TRAPS, AND ROCK CHECK DAMS.	BEGIN MINOR CLEARING AND GRADING AS NEEDED FOR INSTALLATION PERIMETER EROSION CONTROL BMPS.
6	CONSTRUCT PERIMETER EROSION CONTROL BMPS - SILT FENCE, SEDIMENT TRAPS AND ROCK CHECK DAMS PER THE INITIAL LAND DISTURBANCE PHASE STORMWATER MANAGEMENT PLAN.	INSTALL ALL PERIMETER EROSION CONTROL BMPS PRIOR TO ANY MAJOR CLEARING AND GRADING ACTIVITIES. INSTALL ADDITIONAL TRAPS AND BARRIERS AS NEEDED DURING GRADING.
7	ESTABLISH RUNOFF CONTROLS - DIVERSIONS, PERIMETER DIKES, AND OUTLET PROTECTION PER THE INITIAL LAND DISTURBANCE PHASE STORMWATER MANAGEMENT PLAN.	INSTALL KEY PRACTICES AFTER PRINCIPAL SEDIMENT TRAPS AND BEFORE LAND GRADING. INSTALL ADDITIONAL RUNOFF-CONTROL MEASURES DURING GRADING.
CONSTRUCTION PHASE		
8	CONSTRUCTION AND INSTALLATION OF POND 'A' OUTFALL AND PIPING.	MAINTAIN STORM-WATER FLOW FROM ADJACENT EXISTING OUTFALL STRUCTURE.
9	THE STORMWATER BASINS ARE TO BE CONSTRUCTED PRIOR TO OTHER SITE ITEMS.	BEGIN EXCAVATION AND SHAPING OF THE STORMWATER BASINS AFTER RUNOFF CONTROLS HAVE BEEN INSTALLED.
10	LAND CLEARING AND GRADING - SITE PREPARATION CUTTING, FILLING AND GRADING, SEDIMENTATION TRAPS, BARRIERS, DIVERSIONS, DRAINS, SURFACE ROUGHENING PER THE CONSTRUCTION AND STABILIZATION PHASE SWPPP.	BEGIN MAJOR CLEARING AND GRADING AFTER PRINCIPAL SEDIMENT AND KEY RUNOFF-CONTROL MEASURES ARE INSTALLED. CLEAR AREAS ONLY AS NEEDED. INSTALL ADDITIONAL CONTROL MEASURES AS GRADING PROGRESSES.
11	INSTALL RUNOFF CONVEYANCE SYSTEM - INSTALL STORM DRAINS, STABILIZE BANKS AND CHANNELS. INSTALL STORM DRAIN INLET PROTECTION AS SOON AS INLET IS INSTALLED. INSTALL IN THE EXISTING DITCH FIRST BEFORE OTHER AREAS.	WHERE NECESSARY, STABILIZE BANKS AS EARLY AS POSSIBLE. INSTALL PRINCIPAL RUNOFF CONVEYANCE SYSTEM WITH RUNOFF CONTROL MEASURES. INSTALL REMAINDER OF SYSTEM AFTER GRADING. DIRECT ALL TRENCHING AND OTHER DEWATERING OPERATIONS THROUGH A DEWATERING BAG OR SIMILAR BMP PRIOR TO DISCHARGING. OUTFALL DITCH OR PIPING TO BE IN OPERATION.
12	CONSTRUCTION AND INSTALLATION OF THE UNDERGROUND DETENTION SYSTEM AND CONNECTION TO EXISTING GRATE INLET BOX.	CONNECTION OF UNDERGROUND DETENTION SYSTEM TO EXISTING BOX IS TO OCCUR ONLY AFTER OUTFALL PATHWAY TO POND 'A' IS COMPLETED.
13	INSTALL WASTEWATER COLLECTION, WATER DISTRIBUTION, AND STORM DRAINAGE SYSTEMS.	APPLY TEMPORARY OR PERMANENT STABILIZATION MEASURES IMMEDIATELY ON ALL DISTURBED AREAS WHERE WORK IS DELAYED OR COMPLETE. DIRECT ALL TRENCHING AND OTHER DEWATERING OPERATIONS THROUGH A DEWATERING BAG OR SIMILAR BMP PRIOR TO DISCHARGING.
14	INITIATE BUILDING CONSTRUCTION AS MARKET CONDITIONS DICTATE - CONNECT UTILITY SERVICE, INSTALL DRIVEWAY, CONSTRUCT BUILDINGS, ETC.	INSTALL NECESSARY EROSION AND SEDIMENTATION CONTROL PRACTICES PER OS-SWPPP.
15	SURFACE STABILIZATION - TEMPORARY AND PERMANENT SEEDING, MULCHING, SODDING, RIP RAP.	APPLY TEMPORARY OR PERMANENT STABILIZATION MEASURES IMMEDIATELY ON ALL DISTURBED AREAS WHERE WORK IS DELAYED OR COMPLETE.
16	AS PERVIOUS PAVEMENTS ARE INSTALLED, CHANGE INLET PROTECTION TO TYPE G.	INSTALL SEDIMENT CONTROL BMPS AS THE INLET BOXES BECOME AVAILABLE ON A BOX BY BOX PROCESS.
STABILIZATION PHASE		
17	LANDSCAPING AND FINAL STABILIZATION - TOPSOILING, TREES AND SHRUBS, PERMANENT SEEDING, MULCHING, SODDING, RIP RAP.	STABILIZE ALL OPEN AREAS, INCLUDING BORROW AND SPOIL AREAS. REMOVE AND STABILIZE ALL TEMPORARY CONTROL MEASURES.
18	REMOVE TEMPORARY SEDIMENT AND EROSION CONTROL BMPS AS ADJACENT AREAS ARE STABILIZED.	REMOVE SEDIMENT AND EROSION CONTROL BMPS ON A CASE BY CASE BASIS AND ONLY AFTER ALL UPSTREAM CONTRIBUTING AREA IS STABILIZED.
19	PERFORM FINAL MAINTENANCE TO SEDIMENT BASINS.	ONCE ALL AREAS HAVE BEEN STABILIZED, REMOVE SEDIMENT DEPOSITS AND PERFORM FINAL STABILIZATION FOR ALL DRY INFILTRATION PONDS.

NO.	REVISIONS	BY	DATE

NO.	REVISIONS	BY	DATE

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KRA, LP
 KIAWAH ISLAND, SOUTH CAROLINA
 OCEAN PINES
 SWPPP - NOTES AND DETAILS

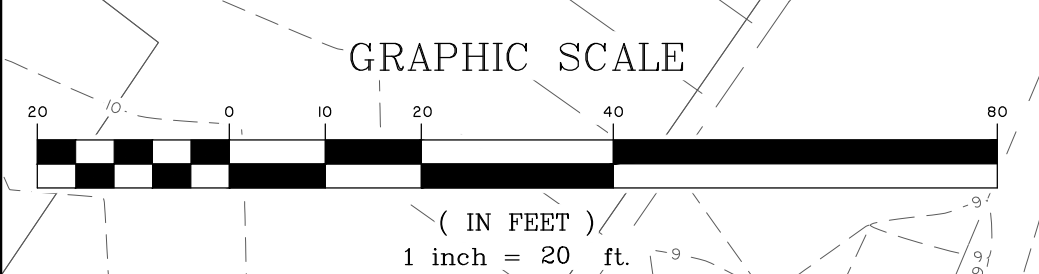
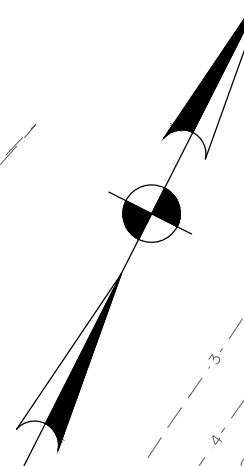
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DATE:	11/8/22
DRAWN:	LMD
DESIGNED:	LMD
REVIEWED:	DJJ
APPROVED:	DJJ
SCALE:	NOT TO SCALE

ECO.2

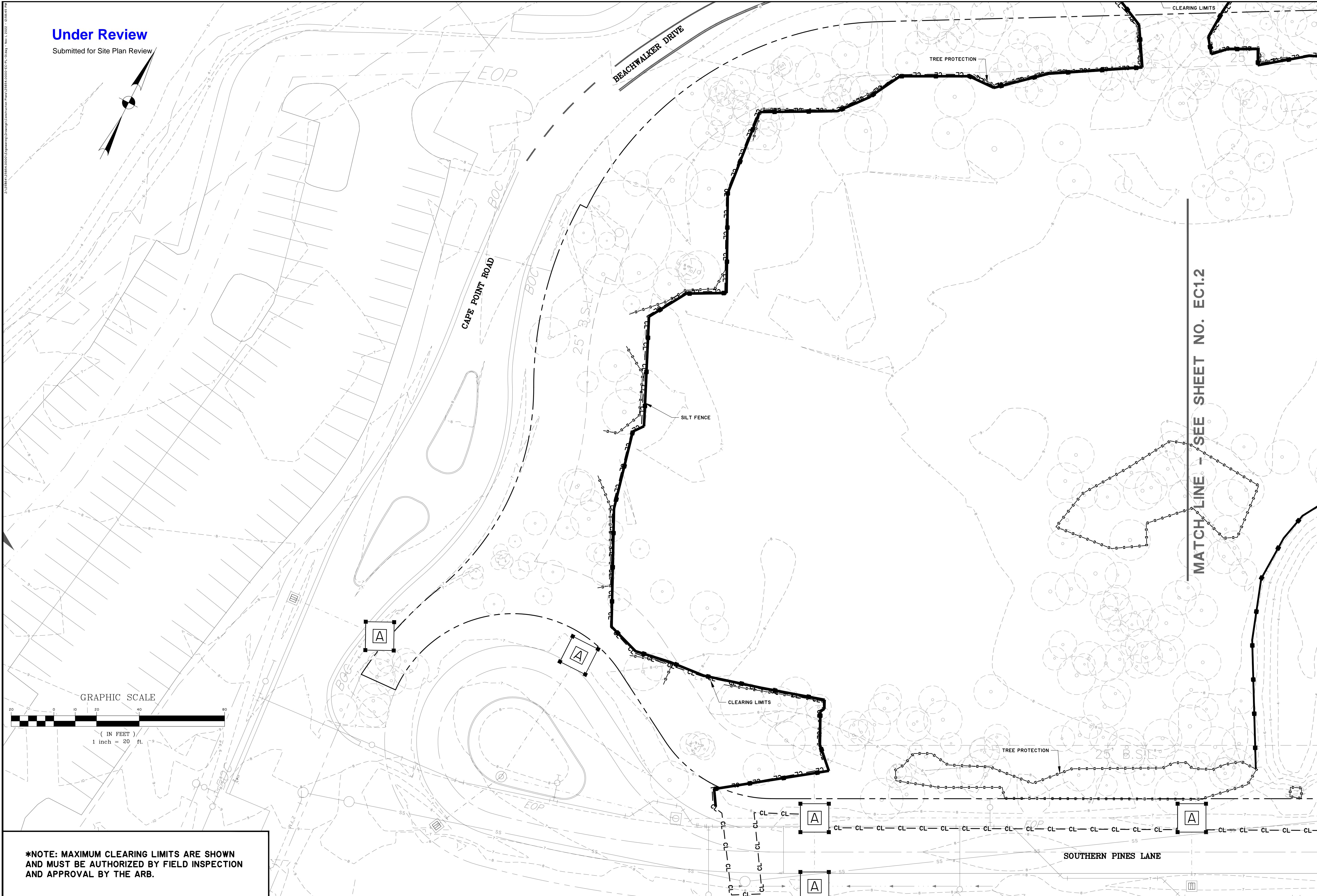
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Under Review

Submitted for Site Plan Review



***NOTE: MAXIMUM CLEARING LIMITS ARE SHOWN AND MUST BE AUTHORIZED BY FIELD INSPECTION AND APPROVAL BY THE ARB.**



MATCHLINE - SEE SHEET NO. EC1.2

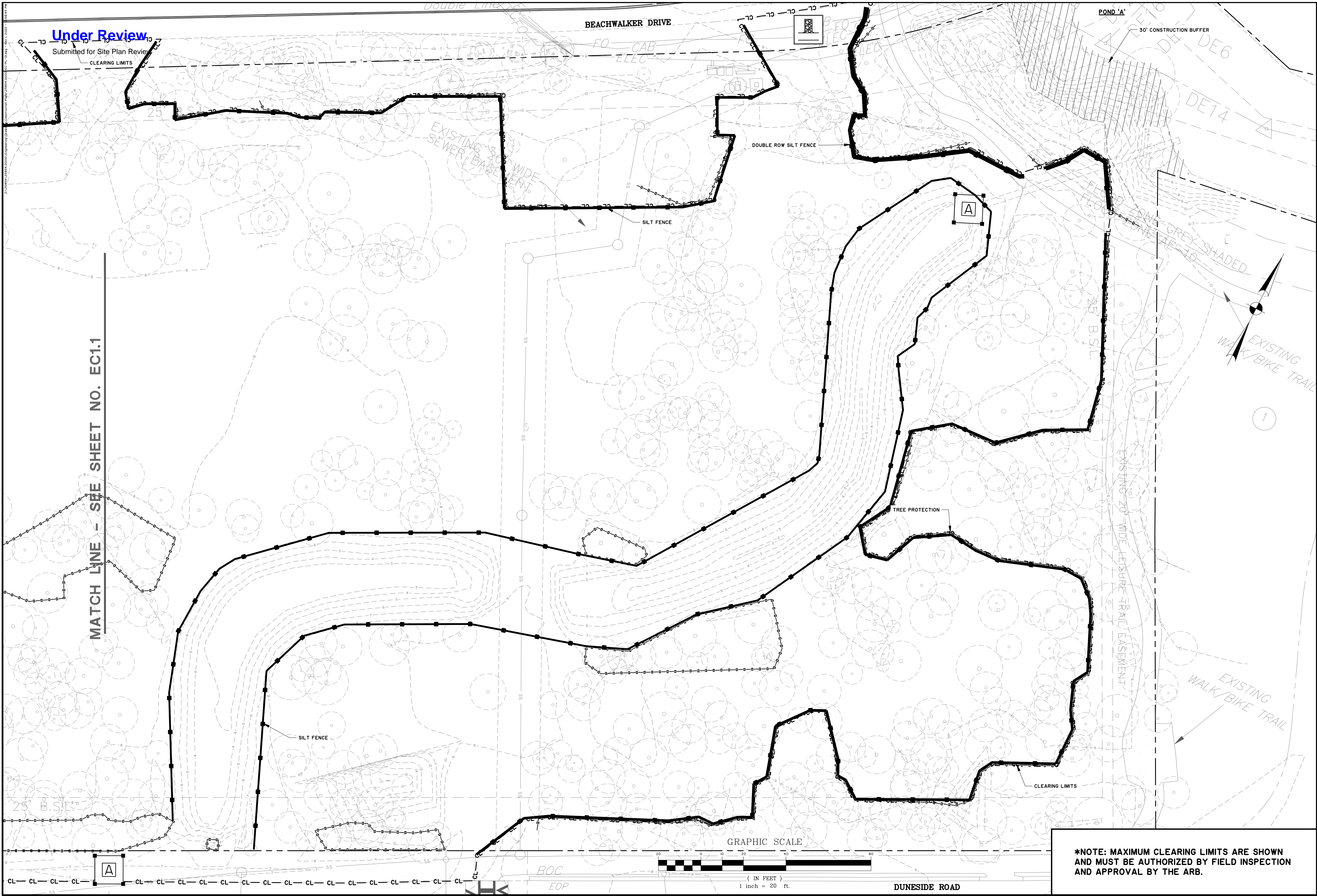
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OCEAN PINES
SWPPP - INITIAL LAND DISTURBANCE PHASE

JOB NO: J-25854.0000
DATE: 11/8/22
DRAWN: LMD
DESIGNED: LMD
REVIEWED: DJJ
APPROVED: DJJ
SCALE: 1" = 20'

EC1.1



Under Review
Submitted for Site Plan Review

CLEARING LIMITS

MATCH LINE - SEE SHEET NO. EC1.1

***NOTE: MAXIMUM CLEARING LIMITS ARE SHOWN AND MUST BE AUTHORIZED BY FIELD INSPECTION AND APPROVAL BY THE ARB.**

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SWPPP - INITIAL LAND DISTURBANCE PHASE

JOB NO: J-25854.0000
DATE: 11/8/22
DRAWN: LMD
DESIGNED: LMD
REVIEWED: DJJ
APPROVED: DJJ
SCALE: 1" = 20'

EC1.2



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SWPPP - CONSTRUCTION PHASE

JOB NO: J-25854.0000
DATE: 11/8/22
DRAWN: LMD
DESIGNED: LMD
REVIEWED: DJJ
APPROVED: DJJ
SCALE: 1" = 20'

EC2.2

***NOTE: MAXIMUM CLEARING LIMITS ARE SHOWN AND MUST BE AUTHORIZED BY FIELD INSPECTION AND APPROVAL BY THE ARB.**



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OCEAN PINES

SWPPP - STABILIZATION PHASE

JOB NO: J-25854.0000
DATE: 11/8/22
DRAWN: LMD
DESIGNED: LMD
REVIEWED: DJJ
APPROVED: DJJ
SCALE: 1" = 20'

EC3.2

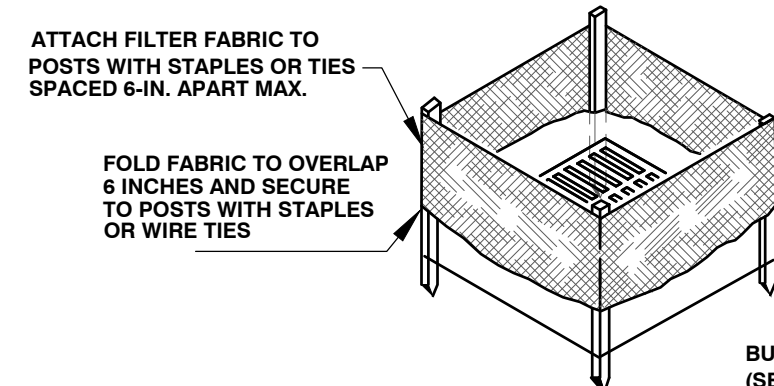
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Under Review

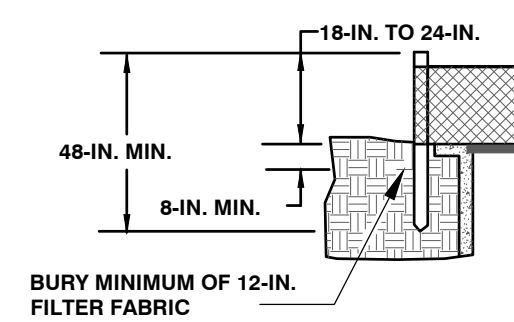
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POST INSTALLATION DETAIL



FILTER FABRIC INSTALLATION DETAIL



FILTER FABRIC BURIAL DETAIL

MATERIALS:

USE FILTER FABRIC THAT CONFORMS TO SCODOT STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION (LATEST EDITION).

USE STEEL POSTS THAT MEET THE FOLLOWING MINIMUM PHYSICAL REQUIREMENTS:
BE COMPOSED OF HIGH STRENGTH STEEL WITH MINIMUM YIELD STRENGTH OF 50,000 PSI.
HAVE A STANDARD "T" SECTION WITH A NOMINAL FACE WIDTH OF 1.38-INCHES AND NOMINAL "T" LENGTH OF 1.48-INCHES.
WEIGH 1.25 POUNDS PER FOOT (± 8%).
BE PAINTED WITH A WATER BASED BAKED ENAMEL PAINT.

INSTALLATION:

EXCAVATE A TRENCH 6-INCHES WIDE AND 6-INCHES DEEP AROUND THE OUTSIDE PERIMETER OF THE INLET UNLESS THE FABRIC IS PNEUMATICALLY INSTALLED.

EXTEND THE FILTER FABRIC A MINIMUM OF 12-INCHES INTO THE TRENCH. BACKFILL THE TRENCH WITH SOIL OR CRUSHED STONE AND COMPACT OVER THE FILTER FABRIC UNLESS THE FABRIC IS PNEUMATICALLY INSTALLED.

USE STEEL POSTS WITH A MINIMUM POST LENGTH OF 60-INCHES CONSISTING OF STANDARD "T" SECTIONS WITH A WEIGHT OF 1.25 POUNDS PER FOOT (± 8%). INSTALL THE FILTER FABRIC TO A MINIMUM HEIGHT OF 24-INCHES ABOVE GRADE. SPACE THE STEEL POSTS AROUND THE PERIMETER OF THE INLET A MAXIMUM OF 3-FEET APART AND DRIVE THEM INTO THE GROUND A MINIMUM OF 24-INCHES. CUT THE FILTER FABRIC FROM A CONTINUOUS ROLL TO THE LENGTH OF THE PROTECTED AREA TO AVOID THE USE OF JOINTS. WHEN JOINTS ARE NECESSARY, WRAP FILTER FABRIC TOGETHER ONLY AT A SUPPORT POST WITH BOTH ENDS SECURELY FASTENED TO THE POST, WITH A MINIMUM 6-INCH OVERLAP.

ATTACH FABRIC TO STEEL POSTS WITH HEAVY-DUTY PLASTIC TIES.

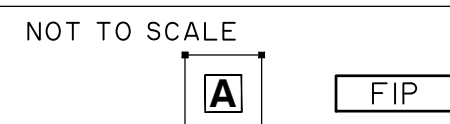
ATTACH AT LEAST FOUR (4) EVENLY SPACED TIES IN A MANNER TO PREVENT SAGGING OR TEARING OF THE FABRIC. IN ALL CASES, AFFIX TIES IN NO LESS THAN FOUR (4) PLACES.

INSPECTION AND MAINTENANCE:

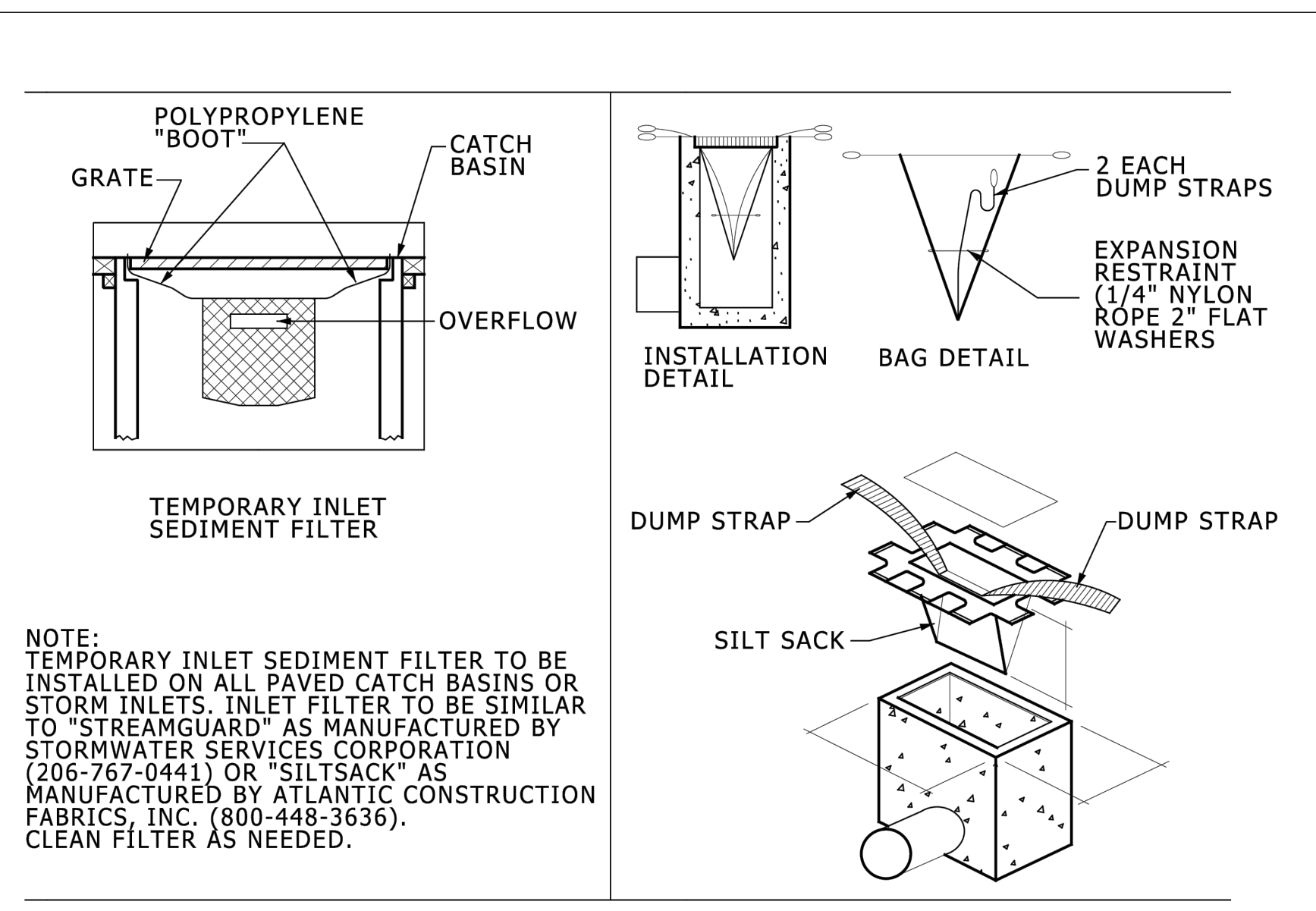
SEDIMENT SHOULD BE REMOVED WHEN IT REACHES APPROXIMATELY 1/3 THE HEIGHT OF THE FENCE. TAKE CARE NOT TO DAMAGE OR UNDERCUT FABRIC WHEN REMOVING SEDIMENT. IF A SUMP IS USED, SEDIMENT SHOULD BE REMOVED WHEN IT FILLS APPROXIMATELY 1/3 THE DEPTH OF THE HOLE. MAINTAIN THE POOL AREA, ALWAYS PROVIDING ADEQUATE SEDIMENT STORAGE VOLUME FOR THE NEXT STORM.

STORM DRAIN INLET PROTECTION STRUCTURES SHOULD BE REMOVED ONLY AFTER THE DISTURBED AREAS ARE PERMANENTLY STABILIZED. REMOVE ALL CONSTRUCTION MATERIAL AND SEDIMENT, AND DISPOSE OF THEM PROPERLY. GRADE THE DISTURBED AREA TO THE ELEVATION OF THE DROP INLET STRUCTURE CREST. USE APPROPRIATE PERMANENT STABILIZATION METHODS TO STABILIZE BARE AREAS AROUND THE INLET.

FILTER FABRIC INLET PROTECTION (TYPE A)



NOT TO SCALE



SILT SAC DETAIL

NOT TO SCALE

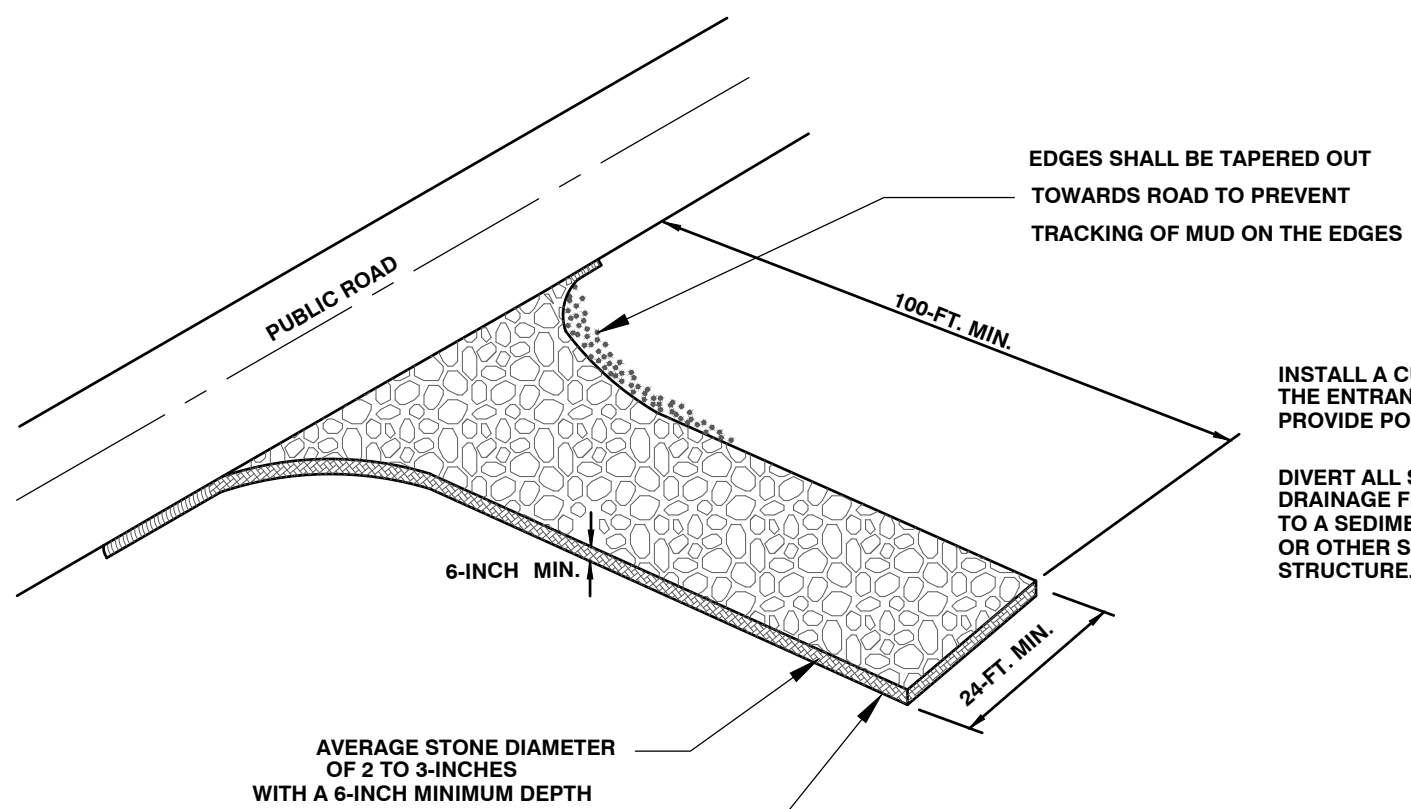


LIST OF ACRONYMS FOR SEDIMENT AND EROSION CONTROL

AASHTO	AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS
AMD	ACRYLAMIDE POLYMER
BFM	BONDED FIBER MATRIX
BMP(S)	BEST MANAGEMENT PRACTICE(S)
CFS	CUBIC FEET PER SECOND
CMP	CORRUGATED METAL PIPE
DHEC	DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL
ECB	EROSION CONTROL BLANKET
EPA	UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
EPSC	EROSION PREVENTION AND SEDIMENTATION CONTROL
FDA	UNITED STATES FOOD AND DRUG ADMINISTRATION
FGM	FLEXIBLE GROWTH MATRIX
HDPE	HIGH DENSITY POLYETHYLENE
MS4	MUNICIPAL SEPARATE STORM SEWER SYSTEM
MSDS	MATERIAL SAFETY DATA SHEETS
NPDES	NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM
PAM	POLYACRYLAMIDE OR POLYMER
RCP	REINFORCED CONCRETE PIPE
SCS	SOIL CONSERVATION SERVICE
SWPPP	STORMWATER POLLUTION PREVENTION PROGRAM
TRM	TURF REINFORCEMENT MAT
VFS	VEGETATED FILTER STRIP

EROSION CONTROL SYMBOL LEGEND

DESCRIPTION	PLAN SYMBOL	PLAN LABEL
STABILIZED CONSTRUCTION ENTRANCE		SCE
DOUBLE ROW SILT FENCE		SF
TYPE A - FABRIC INLET PROTECTION		FIP
OUTLET PROTECTION - TRM		



NOTES:

WHEN AND WHERE TO USE IT:

STABILIZED CONSTRUCTION ENTRANCES SHOULD BE USED AT ALL POINTS WHERE TRAFFIC WILL BE LEAVING A CONSTRUCTION SITE AND MOVING DIRECTLY ONTO A PUBLIC ROAD.

IMPORTANT CONSIDERATIONS:

IF WASHING IS USED, PROVISIONS MUST BE MADE TO INTERCEPT THE WASH WATER AND TRAP THE SEDIMENT BEFORE IT IS CARRIED OFFSITE. WASHDOWN FACILITIES SHALL BE REQUIRED AS DIRECTED BY SCDHEC AS NEEDED. WASHDOWN AREAS IN GENERAL MUST BE ESTABLISHED WITH CRUSHED GRAVEL AND DRAIN INTO A SEDIMENT TRAP OR SEDIMENT BASIN.

CONSTRUCTION ENTRANCES SHOULD BE USED IN CONJUNCTION WITH THE STABILIZATION OF CONSTRUCTION ROADS TO REDUCE THE AMOUNT OF MUD PICKED UP BY VEHICLES.

INSTALLATION:

REMOVE ALL VEGETATION AND ANY OBJECTIONABLE MATERIAL FROM THE FOUNDATION AREA.

DIVERT ALL SURFACE RUNOFF AND DRAINAGE FROM STONES TO A SEDIMENT TRAP OR BASIN.

INSTALL A NON-WOVEN GEOTEXTILE FABRIC PRIOR TO PLACING ANY STONE.

INSTALL A CULVERT PIPE ACROSS THE ENTRANCE WHEN NEEDED TO PROVIDE POSITIVE DRAINAGE.

THE ENTRANCE SHALL CONSIST OF 1-INCH TO 3-INCH D50 STONE PLACED AT A MINIMUM DEPTH OF 6-INCHES.

MINIMUM DIMENSIONS OF THE ENTRANCE SHALL BE 24-FEET WIDE BY 100-FEET LONG, AND MAY BE MODIFIED AS NECESSARY TO ACCOMMODATE SITE CONSTRAINTS.

THE EDGES OF THE ENTRANCE SHALL BE TAPERED OUT TOWARDS THE ROAD TO PREVENT TRACKING OF MUD AT THE EDGE OF THE ENTRANCE.

INSPECTION AND MAINTENANCE:

INSPECT CONSTRUCTION ENTRANCES EVERY SEVEN (7) CALENDAR DAYS AND WITHIN 24-HOURS AFTER EACH RAINFALL EVENT THAT PRODUCES 1/2-INCHES OR MORE OF PRECIPITATION, OR AFTER HEAVY USE. CHECK FOR MUD AND SEDIMENT BUILDUP AND PAD INTEGRITY. MAKE DAILY INSPECTIONS DURING PERIODS OF WET WEATHER. MAINTENANCE IS REQUIRED MORE FREQUENTLY IN WET WEATHER CONDITIONS. RESHAPE THE STONE PAD AS NEEDED FOR DRAINAGE AND RUNOFF CONTROL.

WASH OR REPLACE STONES AS NEEDED. THE STONE IN THE ENTRANCE SHOULD BE WASHED OR REPLACED WHENEVER THE ENTRANCE FAILS TO REDUCE MUD BEING CARRIED OFF-SITE BY VEHICLES.

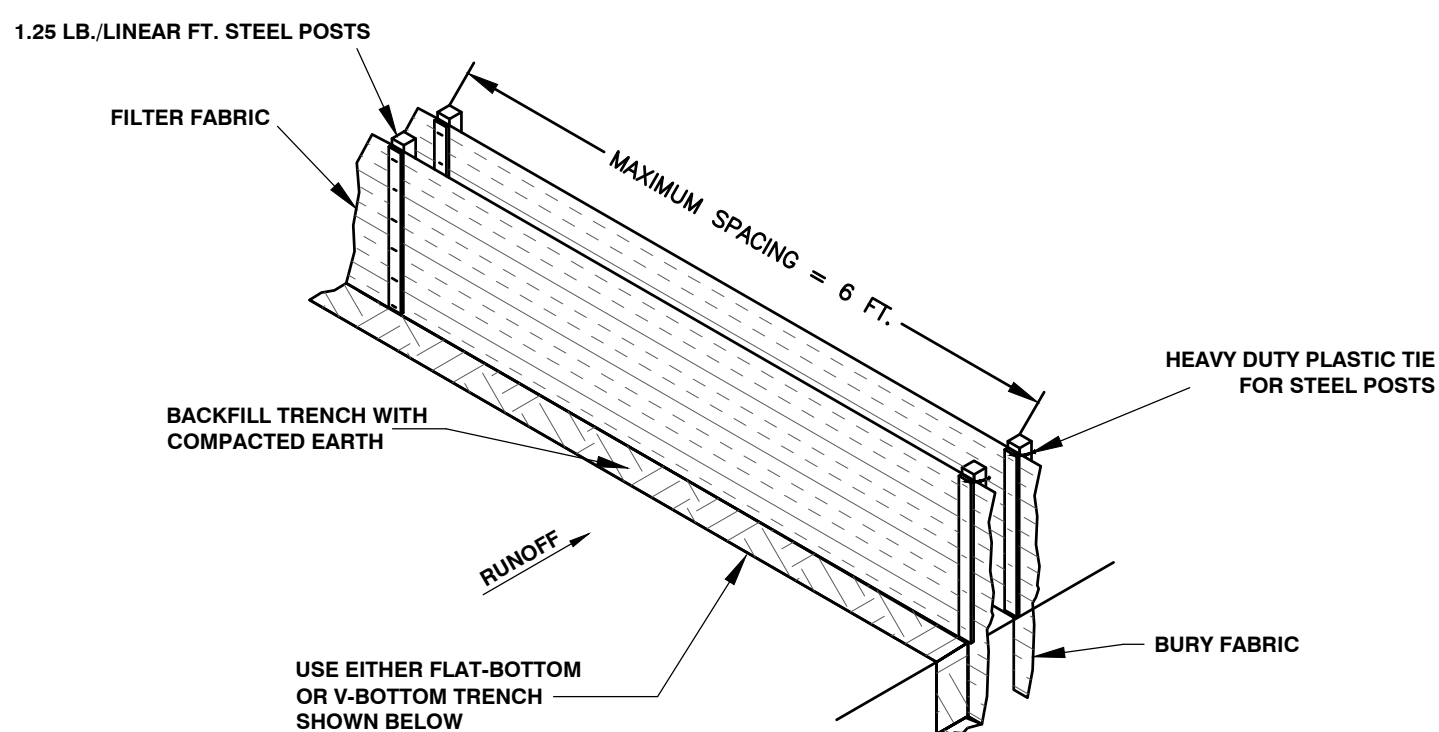
FREQUENT WASHING WILL EXTEND THE USEFUL LIFE OF STONE.

IMMEDIATELY REMOVE MUD AND SEDIMENT TRACKED OR WASHED ONTO PUBLIC ROADS BY BRUSHING OR SWEEPING. FLUSHING SHOULD ONLY BE USED WHEN THE WATER CAN BE DISCHARGED TO A SEDIMENT TRAP OR BASIN.

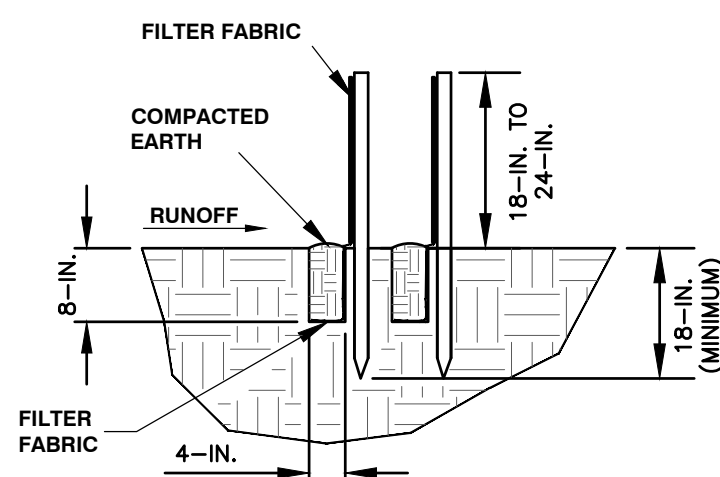
REPAIR ANY BROKEN PAVEMENT IMMEDIATELY.

STABILIZED CONSTRUCTION ENTRANCE

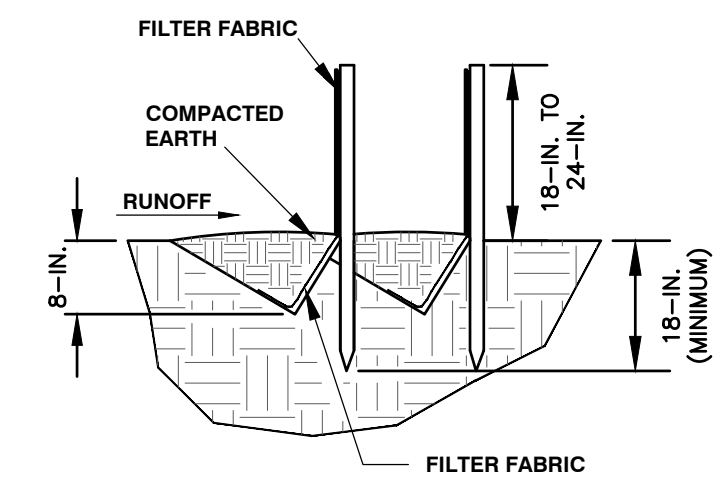
NOT TO SCALE



SILT FENCE INSTALLATION



FLAT-BOTTOM TRENCH DETAIL



V-SHAPED TRENCH DETAIL

NOTES:

WHEN AND WHERE TO USE IT:
SILT FENCE IS APPLICABLE IN AREAS:

WHERE THE MAXIMUM SHEET OR OVERLAND FLOW PATH LENGTH TO THE FENCE IS 100-FEET. WHERE THE MAXIMUM SLOPE STEEPNESS (NORMAL [PERPENDICULAR] TO FENCE LINE) IS 2H:1V. THAT DO NOT RECEIVE CONCENTRATED FLOWS GREATER THAN 0.5 CFS.

DO NOT PLACE SILT FENCE ACROSS CHANNELS OR USE IT AS A VELOCITY CONTROL BMP.

MATERIALS:

STEEL POSTS
USE 48-INCH LONG STEEL POSTS THAT MEET THE FOLLOWING MINIMUM PHYSICAL REQUIREMENTS:
COMPOSED OF HIGH STRENGTH STEEL WITH MINIMUM YIELD STRENGTH OF 50,000 PSI.
HAVE A STANDARD "T" SECTION WITH A NOMINAL FACE WIDTH OF 1.38-INCHES AND NOMINAL "T" LENGTH OF 1.48-INCHES.
WEIGH 1.25 POUNDS PER FOOT (± 8%).
HAVE A SOIL STABILIZATION PLATE WITH A MINIMUM CROSS SECTION AREA OF 17-SQUARE INCHES ATTACHED TO THE STEEL POSTS.
PAINTED WITH A WATER BASED BAKED ENAMEL PAINT.

USE STEEL POSTS WITH A MINIMUM LENGTH OF 4-FEET, WEIGHING 1.25 POUNDS PER LINEAR FOOT (± 8%) WITH PROJECTIONS TO AID IN FASTENING THE FABRIC. EXCEPT WHEN HEAVY CLAY SOILS ARE PRESENT ON SITE, STEEL POSTS WILL HAVE A METAL SOIL STABILIZATION PLATE WELDED NEAR THE BOTTOM SUCH THAT WHEN THE POST IS DRIVEN TO THE PROPER DEPTH, THE PLATE WILL BE BELOW THE GROUND LEVEL FOR ADDED STABILITY.

THE SOIL PLATES SHOULD HAVE THE FOLLOWING CHARACTERISTICS:
BE COMPOSED OF MINIMUM 15 GAUGE STEEL.
HAVE A MINIMUM CROSS SECTION AREA OF 17-SQUARE INCHES.

GEOTEXTILE FILTER FABRIC:

FILTER FABRIC IS:
COMPOSED OF FIBERS CONSISTING OF LONG CHAIN SYNTHETIC POLYMERS COMPOSED OF AT LEAST 85% BY WEIGHT OF POLYOLEFINS, POLYESTERS, OR POLYAMIDES.
FORMED INTO A NETWORK SUCH THAT THE FILAMENTS OR YARNS RETAIN DIMENSIONAL STABILITY RELATIVE TO EACH OTHER.
FREE OF ANY TREATMENT OR COATING WHICH MIGHT ADVERSELY ALTER ITS PHYSICAL PROPERTIES AFTER INSTALLATION.
FREE OF DEFECTS OR FLAWS THAT SIGNIFICANTLY AFFECT ITS PHYSICAL AND/OR FILTERING PROPERTIES.
CUT TO A MINIMUM WIDTH OF 36 INCHES.

USE ONLY FABRIC APPEARING ON SCODOT APPROVAL SHEET #34 MEETING THE REQUIREMENTS OF THE MOST CURRENT EDITION OF THE SCODOT STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION.

INSTALLATION:

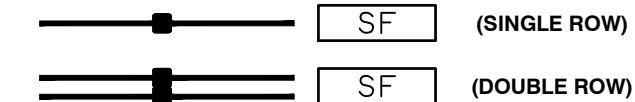
EXCAVATE A TRENCH APPROXIMATELY 6-INCHES WIDE AND 6-INCHES DEEP WHEN PLACING FABRIC BY HAND. PLACE 12-INCHES OF GEOTEXTILE FABRIC INTO THE 6-INCH DEEP TRENCH, EXTENDING THE REMAINING 6-INCHES TOWARDS THE UPSLOPE SIDE OF THE TRENCH. BACKFILL THE TRENCH WITH SOIL OR GRAVEL AND COMPACT. BURY 12-INCHES OF FABRIC INTO THE GROUND WHEN PNEUMATICALLY INSTALLING SILT FENCE WITH A SLICING METHOD. PURCHASE FABRIC IN CONTINUOUS ROLLS AND CUT TO THE LENGTH OF THE BARRIER TO AVOID JOINTS. WHEN JOINTS ARE NECESSARY, WRAPPED THE FABRIC TOGETHER AT A SUPPORT POST WITH BOTH ENDS FASTENED TO THE POST, WITH A 6-INCH MINIMUM OVERLAP. INSTALL POSTS TO A MINIMUM DEPTH OF 24-INCHES. INSTALL POSTS A MINIMUM OF 1- TO 2- INCHES ABOVE THE FABRIC, WITH NO MORE THAN 3- FEET OF THE POST ABOVE THE GROUND. SPACE POSTS TO MAXIMUM 6- FEET CENTERS. ATTACH FABRIC TO WOOD POSTS USING STAPLES MADE OF HEAVY-DUTY WIRE AT LEAST 1-1/2-INCH LONG. SPACED A MAXIMUM OF 6-INCHES APART. STAPLE A 2-INCH WIDE LATE OVER THE FILTER FABRIC TO SECURELY FASTEN IT TO THE UPSLOPE SIDE OF WOODEN POSTS. ATTACH FABRIC TO THE STEEL POSTS USING HEAVY-DUTY PLASTIC TIES THAT ARE EVENLY SPACED AND PLACED IN A MANNER TO PREVENT SAGGING OR TEARING OF THE FABRIC. IN CALL CASES, TIES SHOULD BE AFFIXED IN NO LESS THAN 4 PLACES. INSTALL THE FABRIC A MINIMUM OF 24-INCHES ABOVE THE GROUND. WHEN NECESSARY, THE HEIGHT OF THE FENCE ABOVE GROUND MAY BE GREATER THAN 24-INCHES. IN TIDAL AREAS, EXTRA SILT FENCE HEIGHT MAY BE REQUIRED. THE POST HEIGHT WILL BE TWICE THE EXPOSED POST HEIGHT. POST SPACING WILL REMAIN THE SAME AND EXTRA FABRIC WILL BE 4-, 5-, OR 6- FEET TALL. LOCATE SILT FENCE CHECKS EVERY 100 FEET MAXIMUM AND AT LOW POINTS. INSTALL THE FENCE PERPENDICULAR TO THE DIRECTION OF FLOW AND PLACE THE FENCE THE PROPER DISTANCE FROM THE TOE OF STEEP SLOPES TO PROVIDE SEDIMENT STORAGE AND ACCESS FOR MAINTENANCE AND CLEANOUT.

INSPECTION AND MAINTENANCE:

INSPECT EVERY SEVEN (7) CALENDAR DAYS AND WITHIN 24-HOURS AFTER EACH RAINFALL EVENT THAT PRODUCES 1/2-INCHES OR MORE OF PRECIPITATION. CHECK FOR SEDIMENT BUILDUP AND FENCE INTEGRITY. CHECK WHERE RUNOFF HAS ERODED A CHANNEL BENEATH THE FENCE, OR WHERE THE FENCE HAS SAGGED OR COLLAPSED BY FENCE OVERTOPPING. IF THE FENCE FABRIC TEARS, BEGINS TO DECOMPOSE, OR IN ANY WAY BECOMES INEFFECTIVE, REPLACE THE SECTION OF FENCE IMMEDIATELY. REMOVE SEDIMENT ACCUMULATED ALONG THE FENCE WHEN IT REACHES 1/3 THE HEIGHT OF THE FENCE, ESPECIALLY IF HEAVY RAINS ARE EXPECTED. REMOVE TRAPPED SEDIMENT FROM THE SITE OR STABILIZE IT ON SITE. REMOVE SILT FENCE WITHIN 30 DAYS AFTER FINAL STABILIZATION IS ACHIEVED OR AFTER TEMPORARY BEST MANAGEMENT PRACTICES (BMPs) ARE NO LONGER NEEDED. PERMANENTLY STABILIZE DISTURBED AREAS RESULTING FROM FENCE REMOVAL.

SILT FENCE

NOT TO SCALE



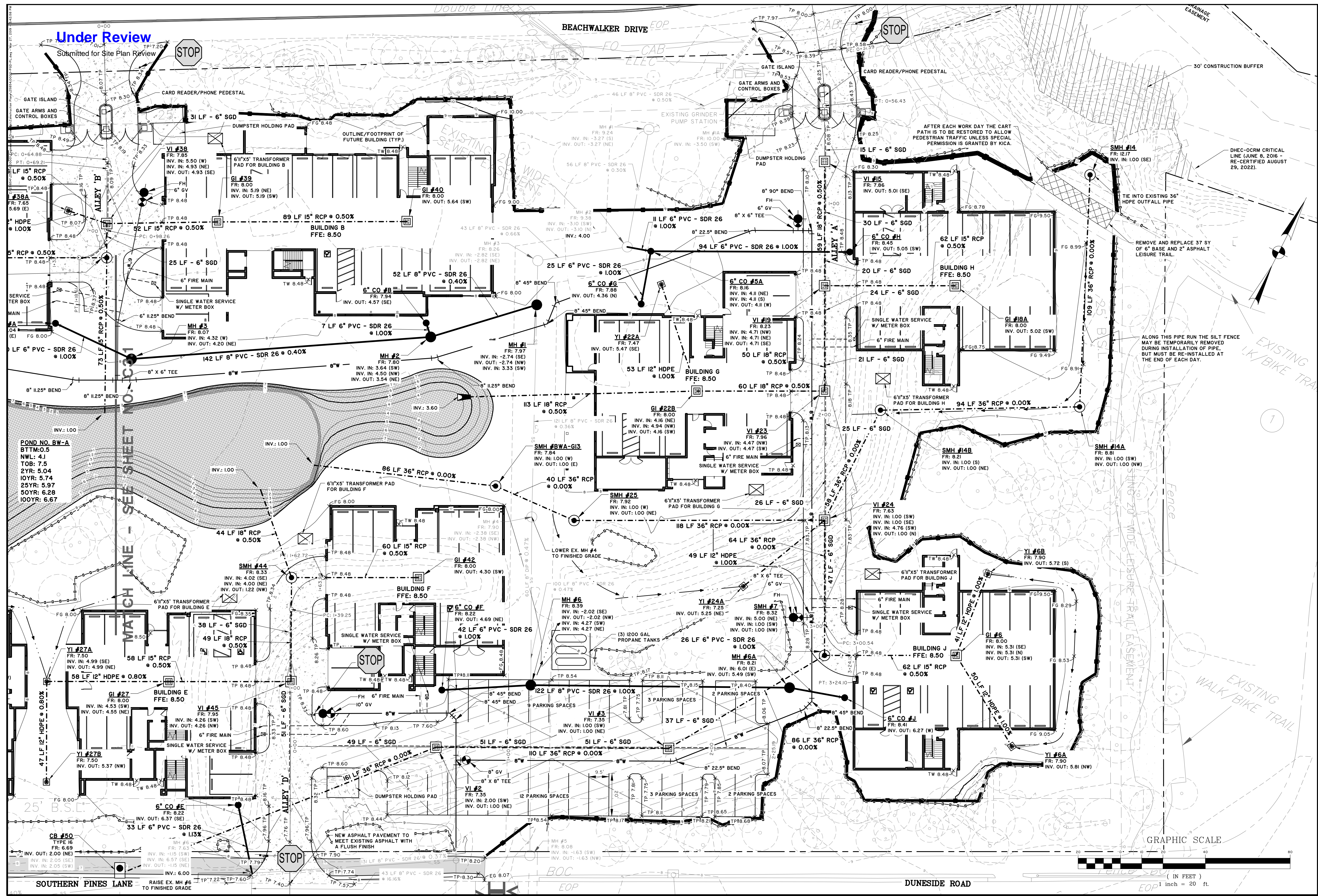
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KIAWAH ISLAND, SOUTH CAROLINA
OCEAN PINES
SWPPP - DETAILS

JOB NO:	J-25854.0000
DATE:	11/8/22
DRAWN:	LMD
DESIGNED:	LMD
REVIEWED:	DJJ
APPROVED:	DJJ
SCALE:	NOT TO SCALE

EC4.1



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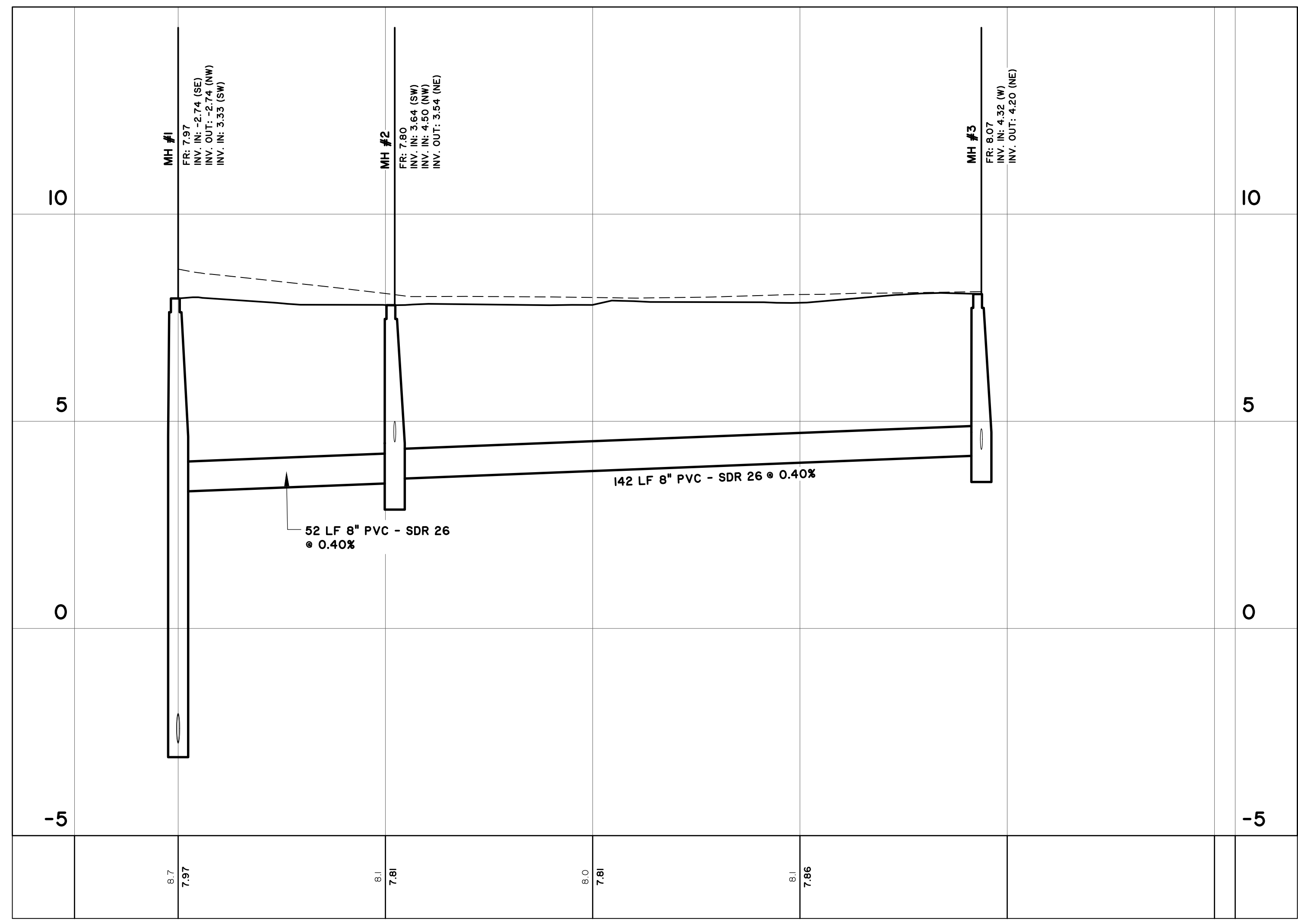
KRA, LP
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OCEAN PINES
SITE DEVELOPMENT PLAN

JOB NO: J-25854.0000
DATE: 11/8/22
DRAWN: LMD
DESIGNED: LMD
REVIEWED: DJJ
SCALE: 1" = 20'
C3.2

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Under Review

Submitted for Site Plan Review



25854.0000 - Sewer - Run 1

STATIONS: -0+25 - 2+55
SCALE: HORZ.: 1" = 20'
VERT.: 1" = 2'

LEGEND	
	PROPOSED GRADE
	EXISTING GRADE

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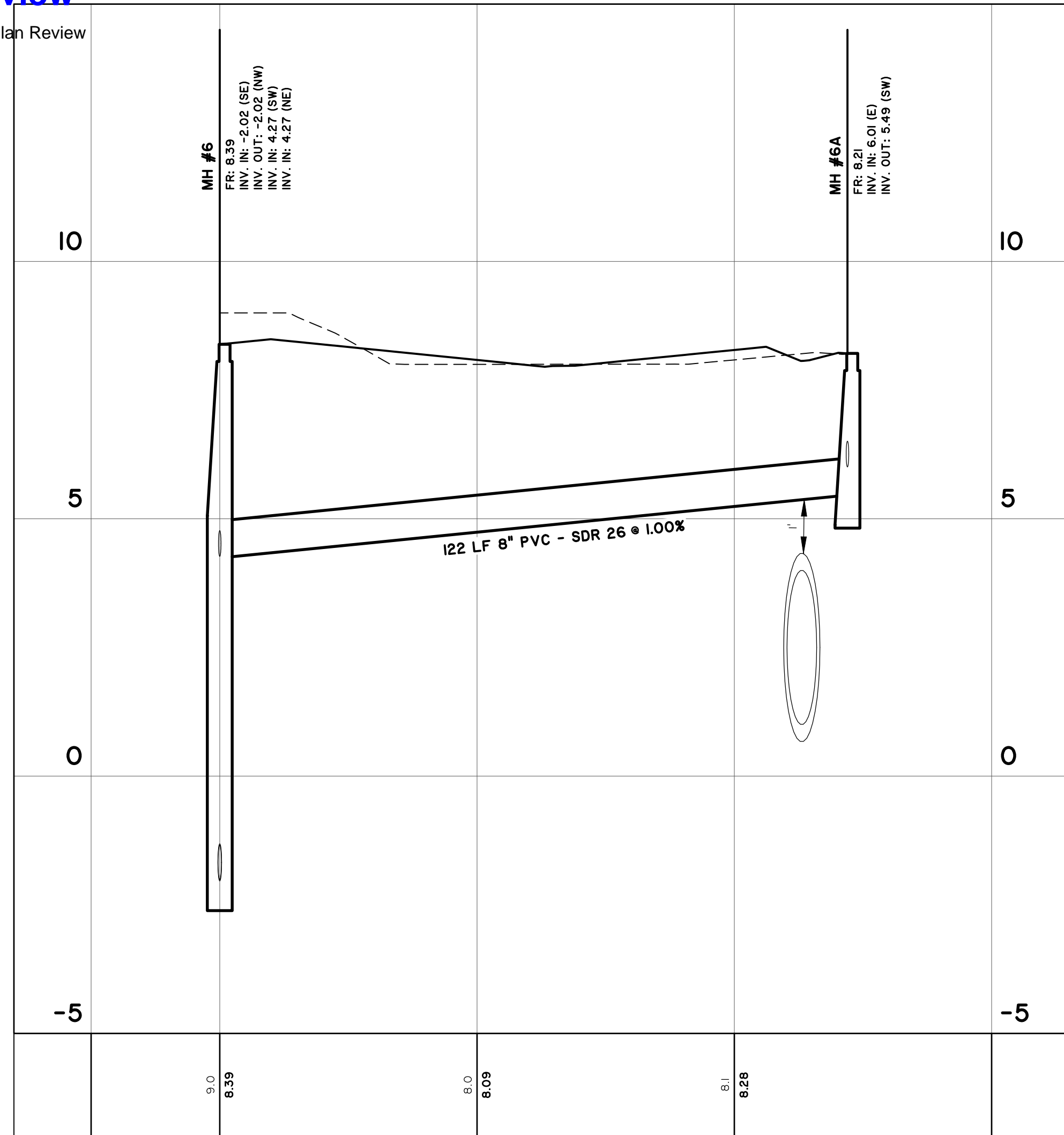
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DATE:	11/8/22
DRAWN:	LMD
DESIGNED:	LMD
REVIEWED:	DJJ
APPROVED:	DJJ
SCALE:	1" = 20'

NO.	REVISIONS	BY	DATE

C3.3

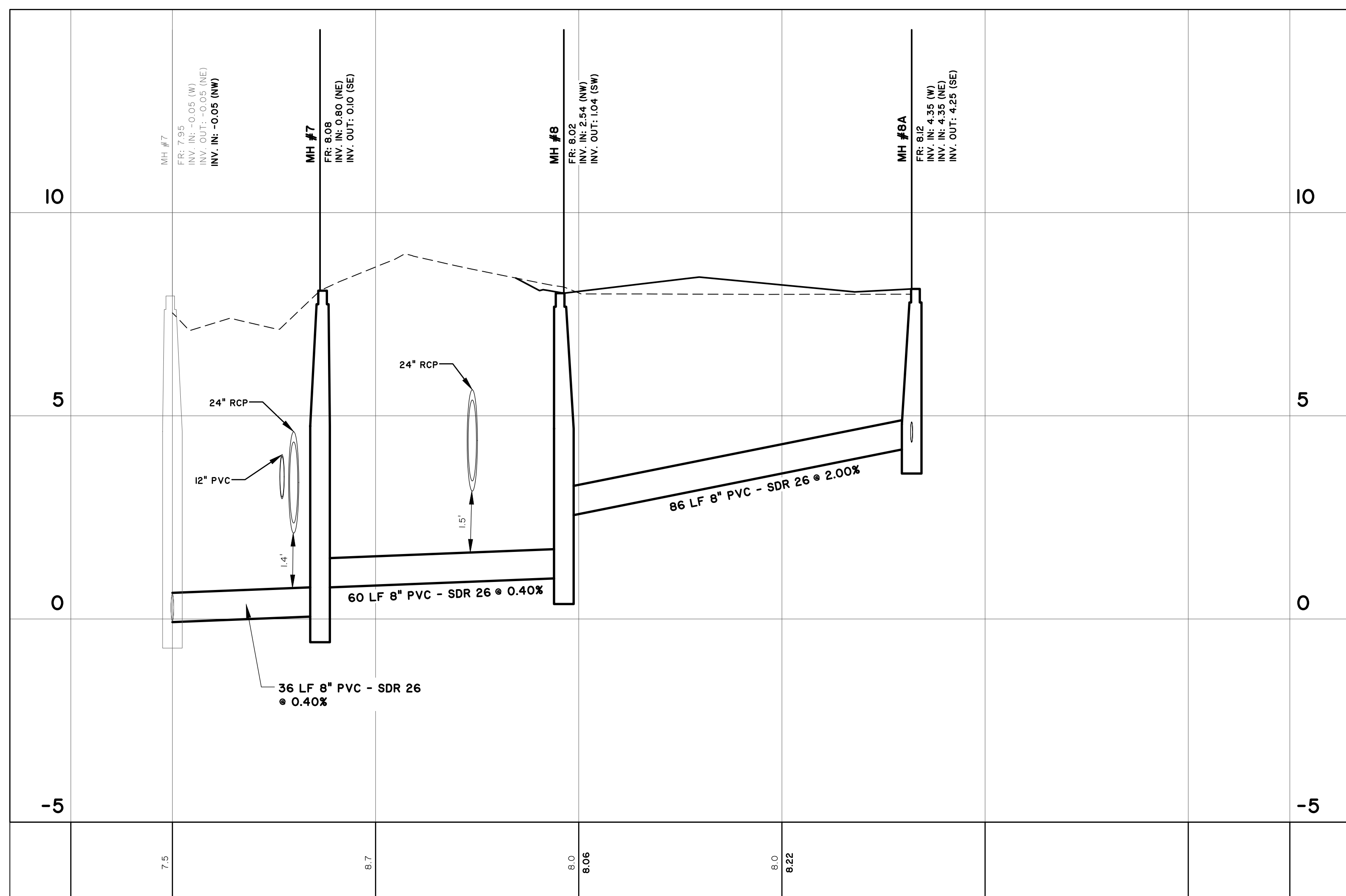
Under Review

Submitted for Site Plan Review



25854.0000 - Sewer - Run 4

STATIONS: -0+25 - 1+50
SCALE: HORZ.: 1" = 20'
VERT.: 1" = 2'



25854.0000 - Sewer - Run 3

STATIONS: -0+25 - 2+75
SCALE: HORZ.: 1" = 20'
VERT.: 1" = 2'

LEGEND
— PROPOSED GRADE
- - - EXISTING GRADE

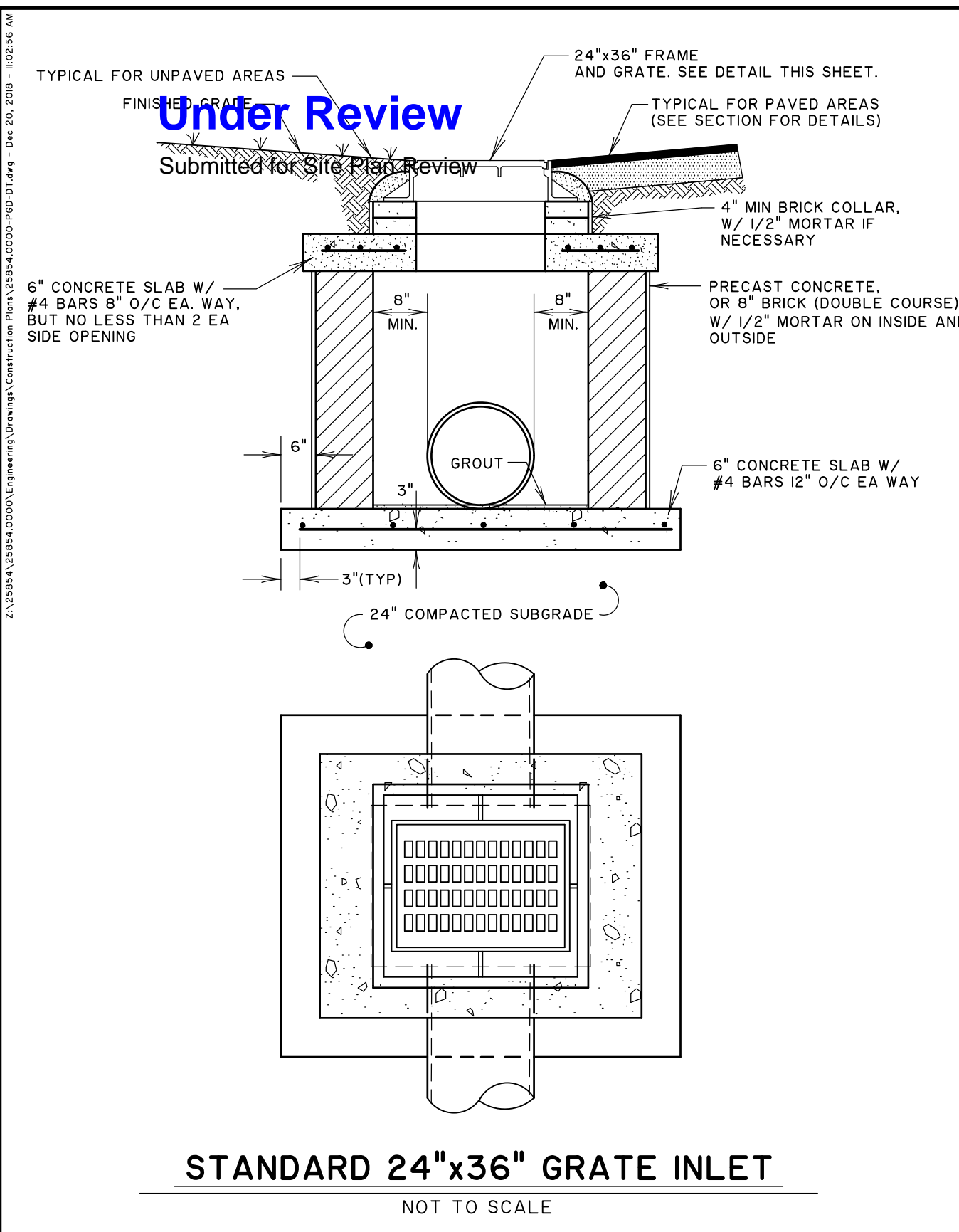
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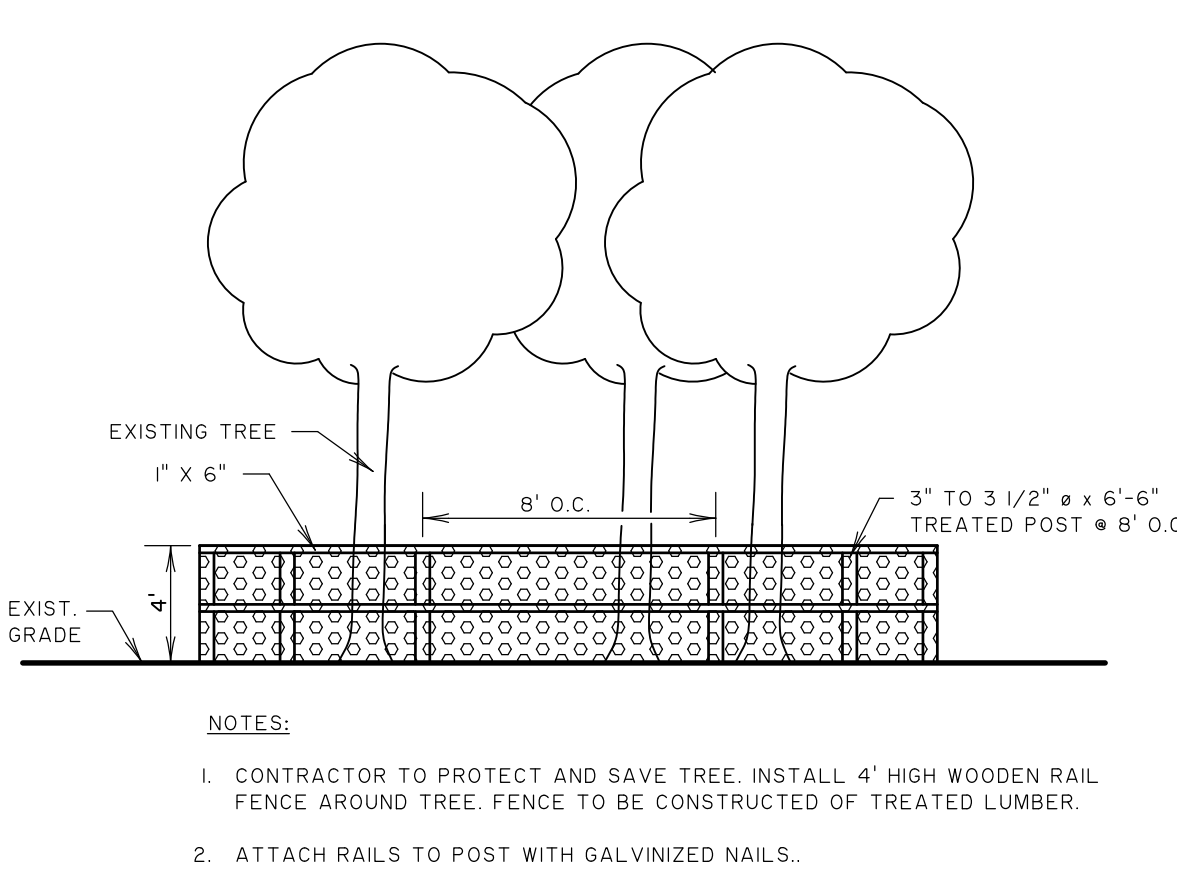
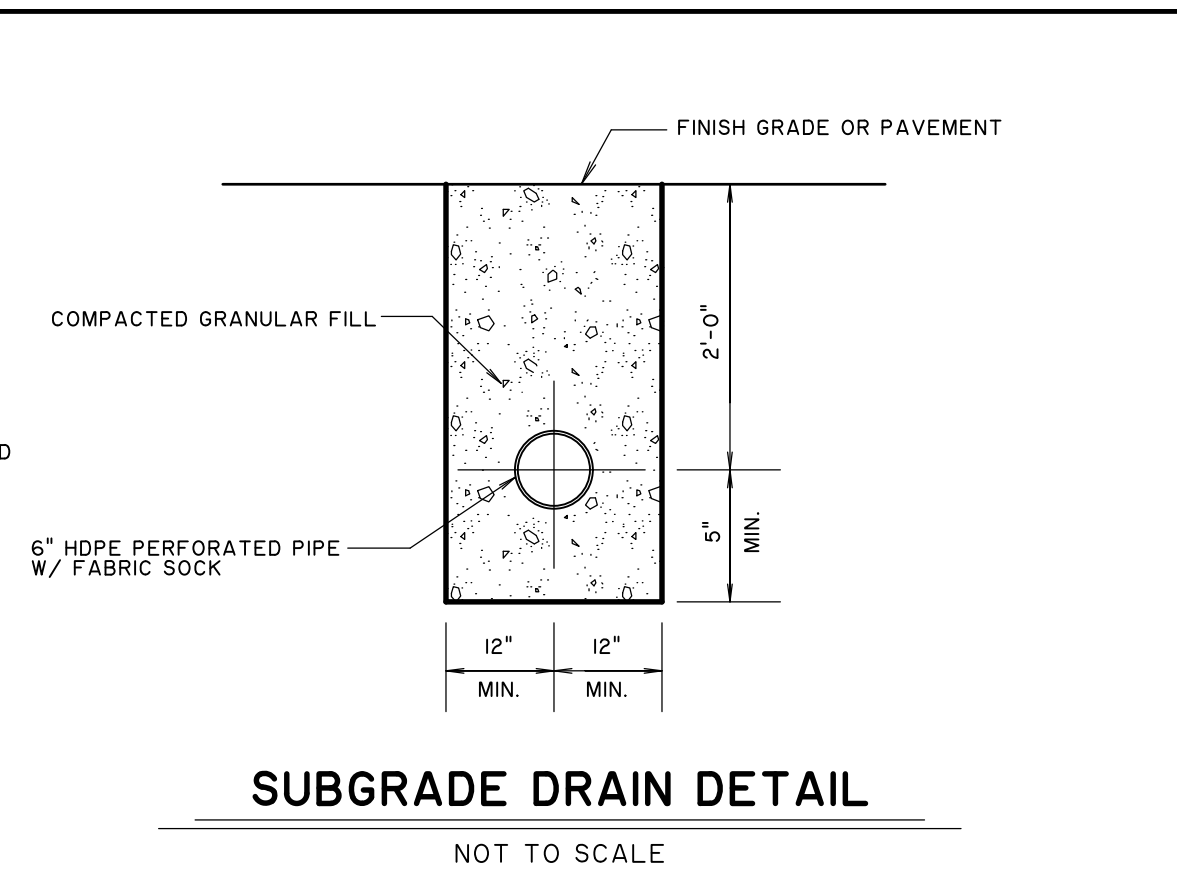
KRA, LP
KIAWAH ISLAND, SOUTH CAROLINA
OCEAN PINES
SEWER PROFILES

JOB NO:	J-25854.0000
DATE:	11/8/22
DRAWN:	LMD
DESIGNED:	LMD
REVIEWED:	DJJ
APPROVED:	DJJ
SCALE:	1" = 20'

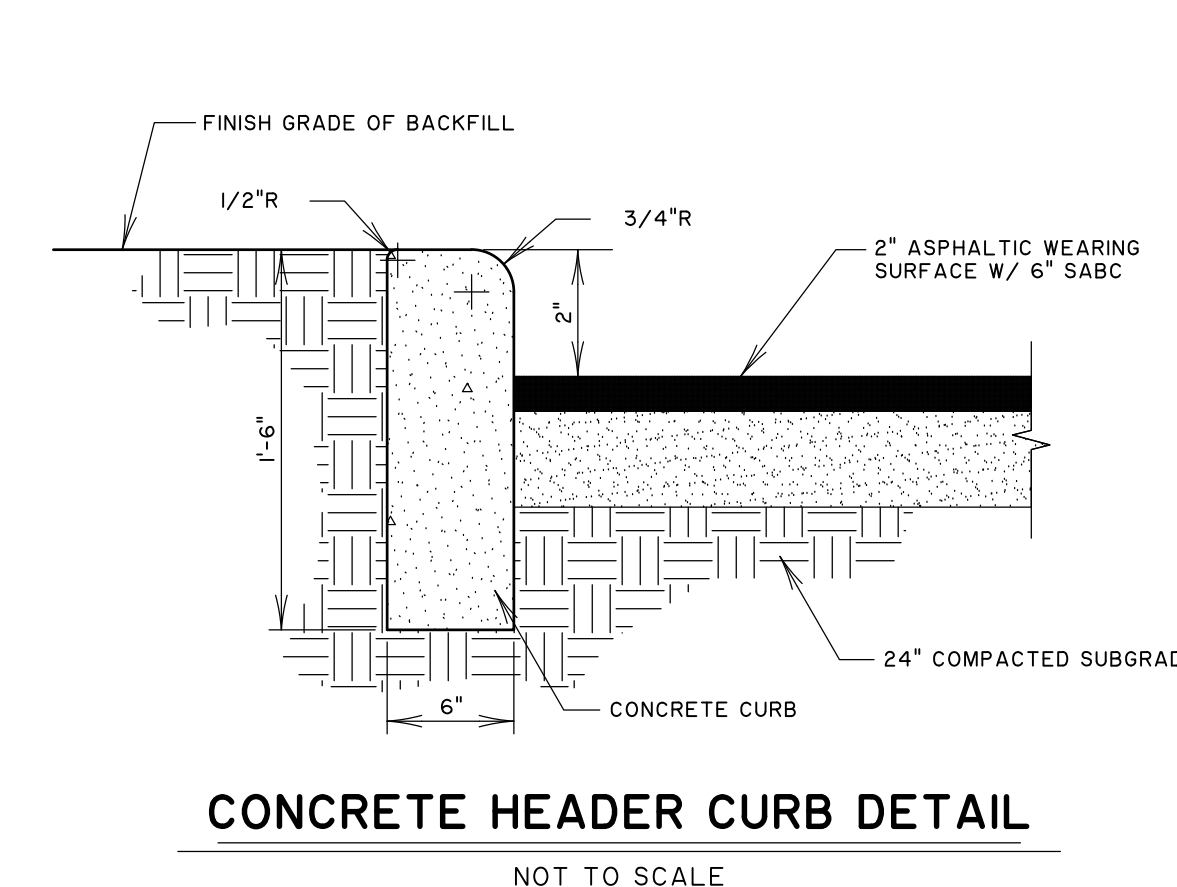
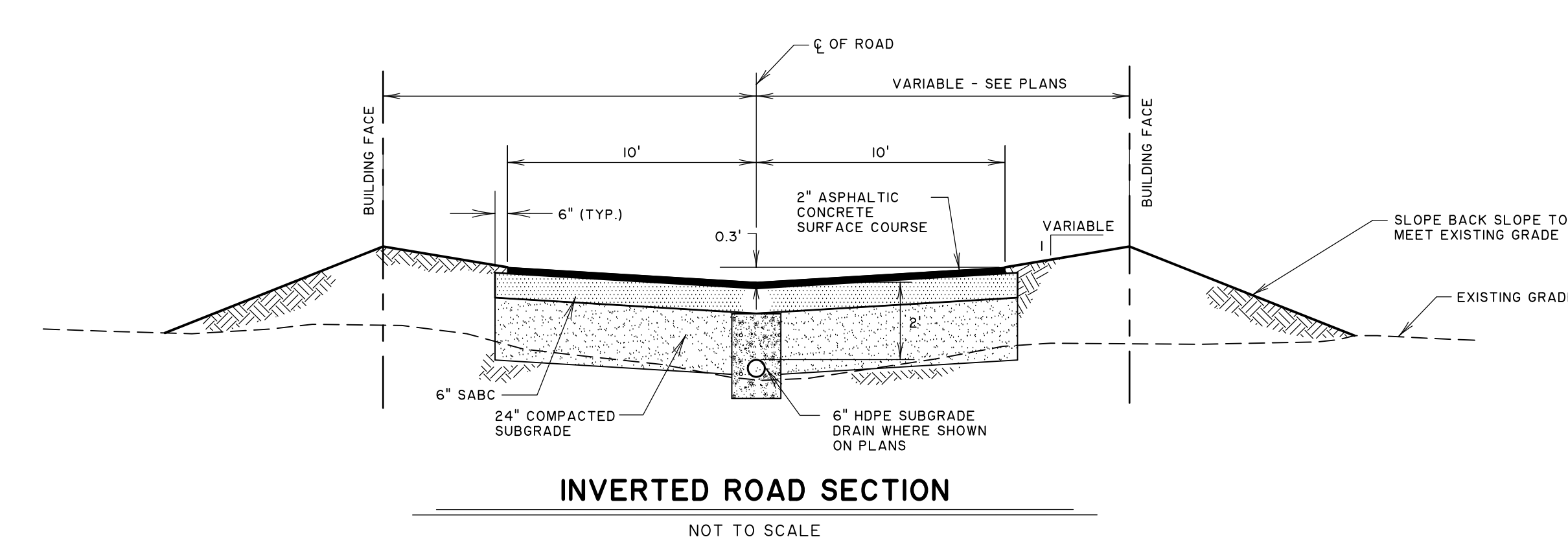
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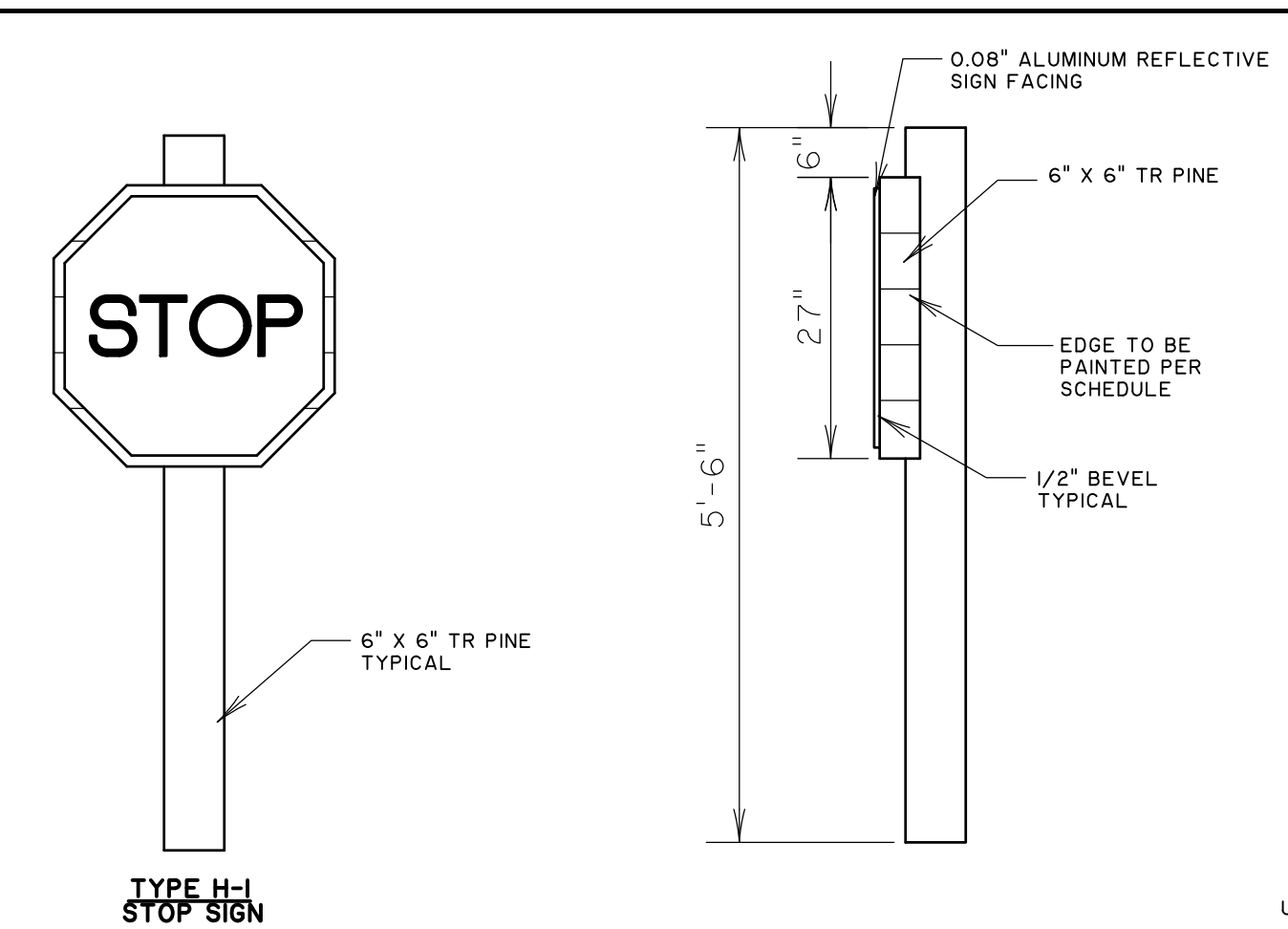
NOTES:
 1. CHAMFER ALL EXPOSED CONCRETE EDGES 3/4".
 2. WHERE BRICK IS USED, ALL EXPOSED SURFACES SHALL BE COATED WITH 1/2" 1:2 MORTAR INSIDE AND OUTSIDE.
 3. IF PRECAST BOX IS USED, TOP, RISER, AND BASE SHALL CONFORM TO THE LATEST REVISION OF ASTM C-478.
 4. ONLY TYPE S OR M MORTAR SHALL BE USED AND ALL BRICK SHALL MEET SCDOT SPECIFICATIONS.
 5. UNLESS OTHERWISE SHOWN THE CENTER OF THE FRAME FOR GRATE INLET STRUCTURES ARE TO BE LOCATED 6'-0" FROM THE EDGE OF PAVEMENT I.E. CENTER OF FRAME TO ALIGN WITH THE CENTER OF ROADSIDE SWALE.



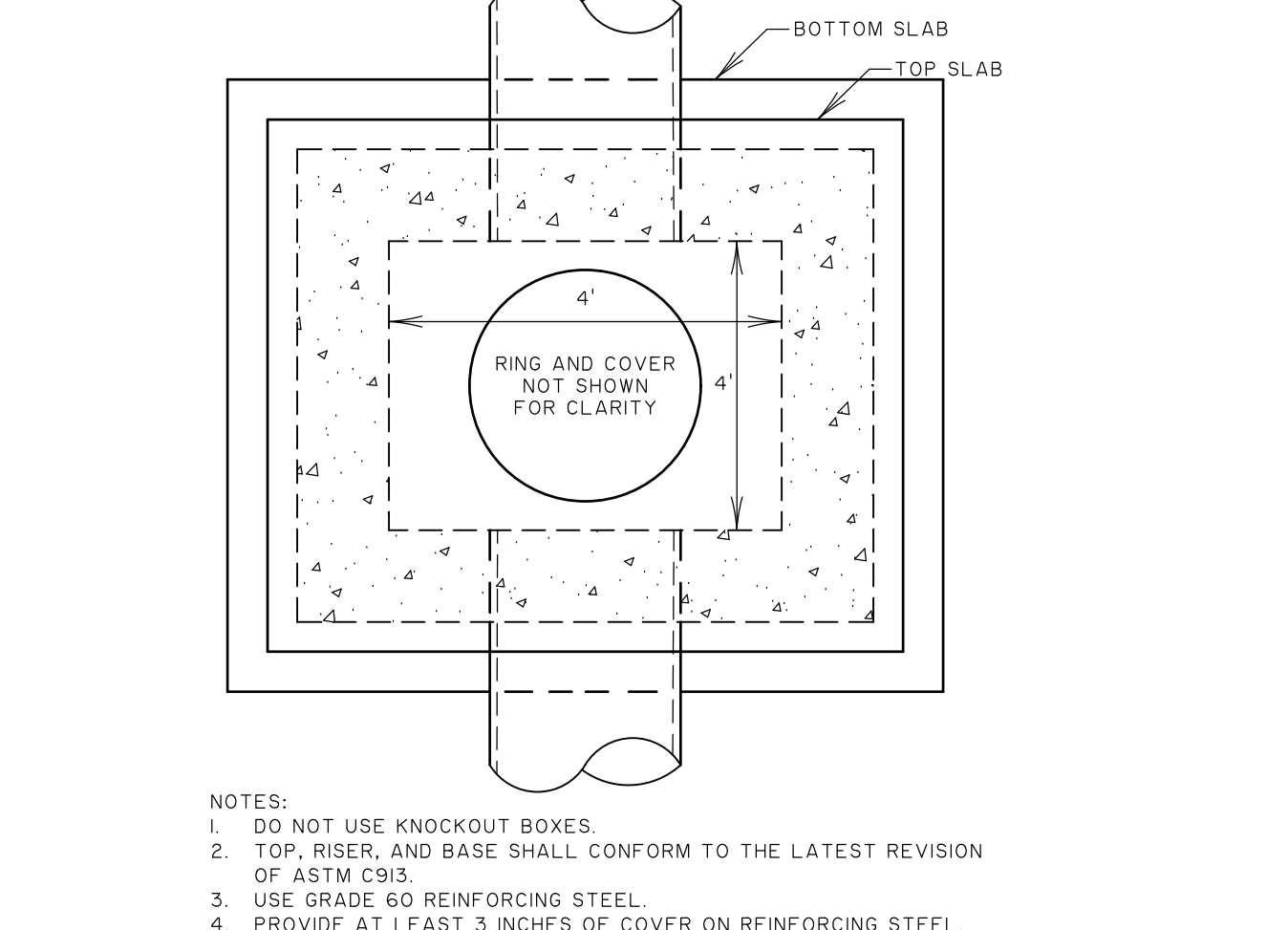
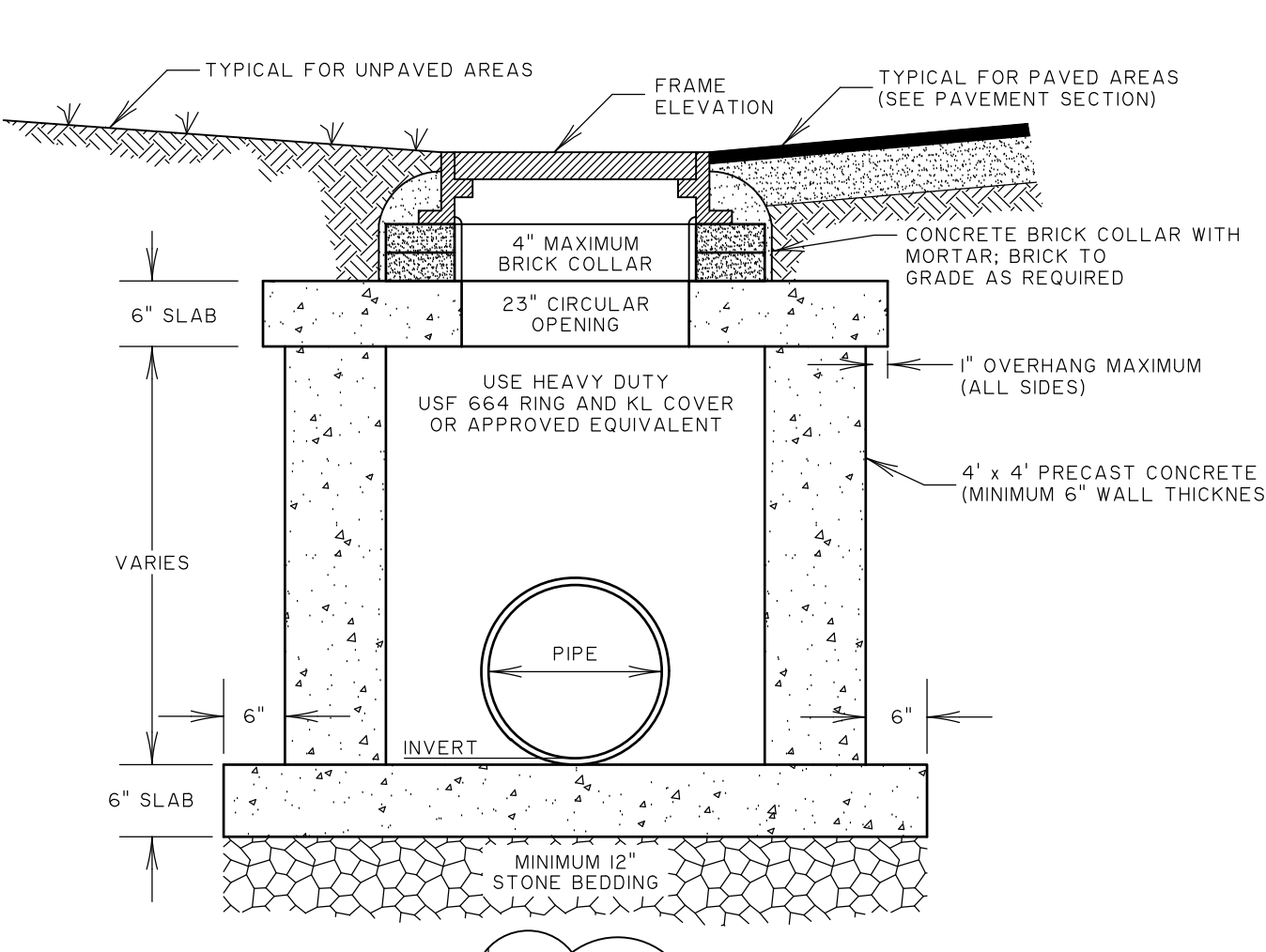
NOTES:
 1. CONTRACTOR TO PROTECT AND SAVE TREE. INSTALL 4' HIGH WOODEN RAIL FENCE AROUND TREE. FENCE TO BE CONSTRUCTED OF TREATED LUMBER.
 2. ATTACH RAILS TO POST WITH GALVANIZED NAILS.



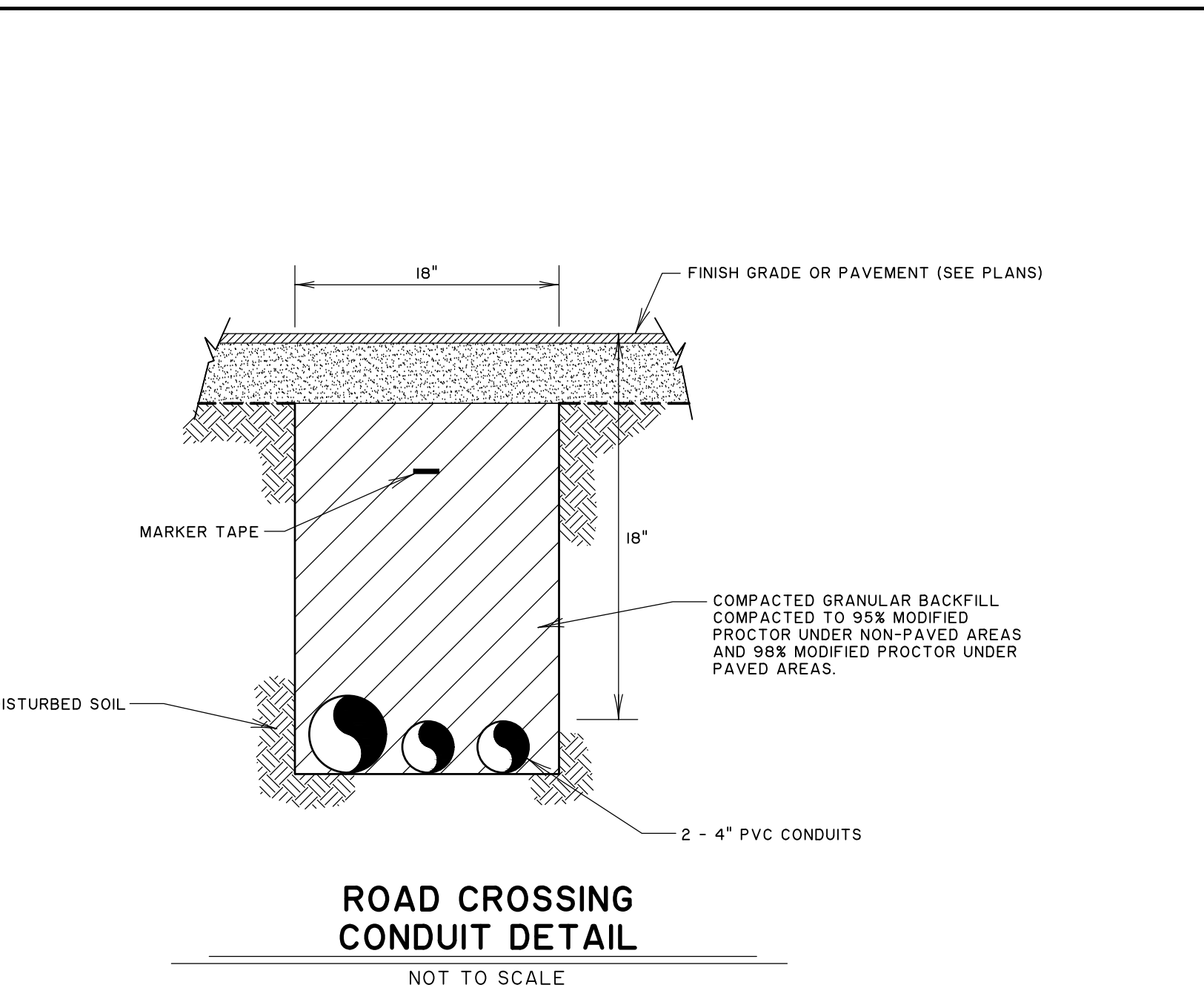
NOTES:
 1. ALL CONCRETE SHALL BE 3,000 PSI.
 2. PROVIDE CONTROL JOINTS EVERY TEN FEET (10').
 3. PROVIDE EXPANSION JOINTS EVERY FIFTY FEET (50').
 4. PROVIDE EXPANSION JOINT WHERE CURB ABUTS SIDEWALKS, OR OTHER STRUCTURES.
 5. PROVIDE LIGHT BROOM FINISH.



NOTES:
 1. USED WHEREVER VEHICULAR TRAFFIC CONTROL IS NEEDED. GUIDELINES FOR USE SHOULD BE BASED ON SOUTH CAROLINA'S TRAFFIC LAWS AND MUTCD CURRENT ADDITIONS.
 2. PRIMARY MATERIAL FOR THE SIGN POST AND FACE SHOULD BE 6" X 6" TREATED YELLOW PINE. OVERALL POST LENGTH IS 9'-0". SPECIAL HARDWARE INCLUDES 1/2" COUNTERSUNK Ogee WASHERS USED ON BOLTS HOLDING THE FACE PANEL TO POST. ALL OTHER HARDWARE IS STANDARD.
 3. SIGN SHAPES AND SYMBOLS SHOULD BE BASED ON STANDARDS AS USED BY THE SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION AND MUTCD.
 4. THE SIGN POST SHOULD BE STAINED CABOT'S CREOSOTE STAIN 0247. THE SIGN FACE FOR ALL REGULATORY SIGNS SHOULD BE 0.08 INCH ALUMINUM CONFORMING TO ASTM B 209. FINISHED SIGN SHALL BE CLEAR CUT AND THE LINES OF ALL LETTERS SHALL BE TRUE, REGULAR AND FREE OF UNEVENNESS. THE SIGN FACE SHALL BE IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
 5. CARE SHOULD BE TAKEN TO MAKE SURE POSTS ARE PROPERLY TREATED TO PREVENT DECAY OR ATTACK FROM TERMITES.
 6. THE FRONT, BACK AND EDGES OF THE SIGN BACKING SHALL BE PAINTED ACCORDING TO THE FOLLOWING SCHEDULE:
 STOP SIGN RED



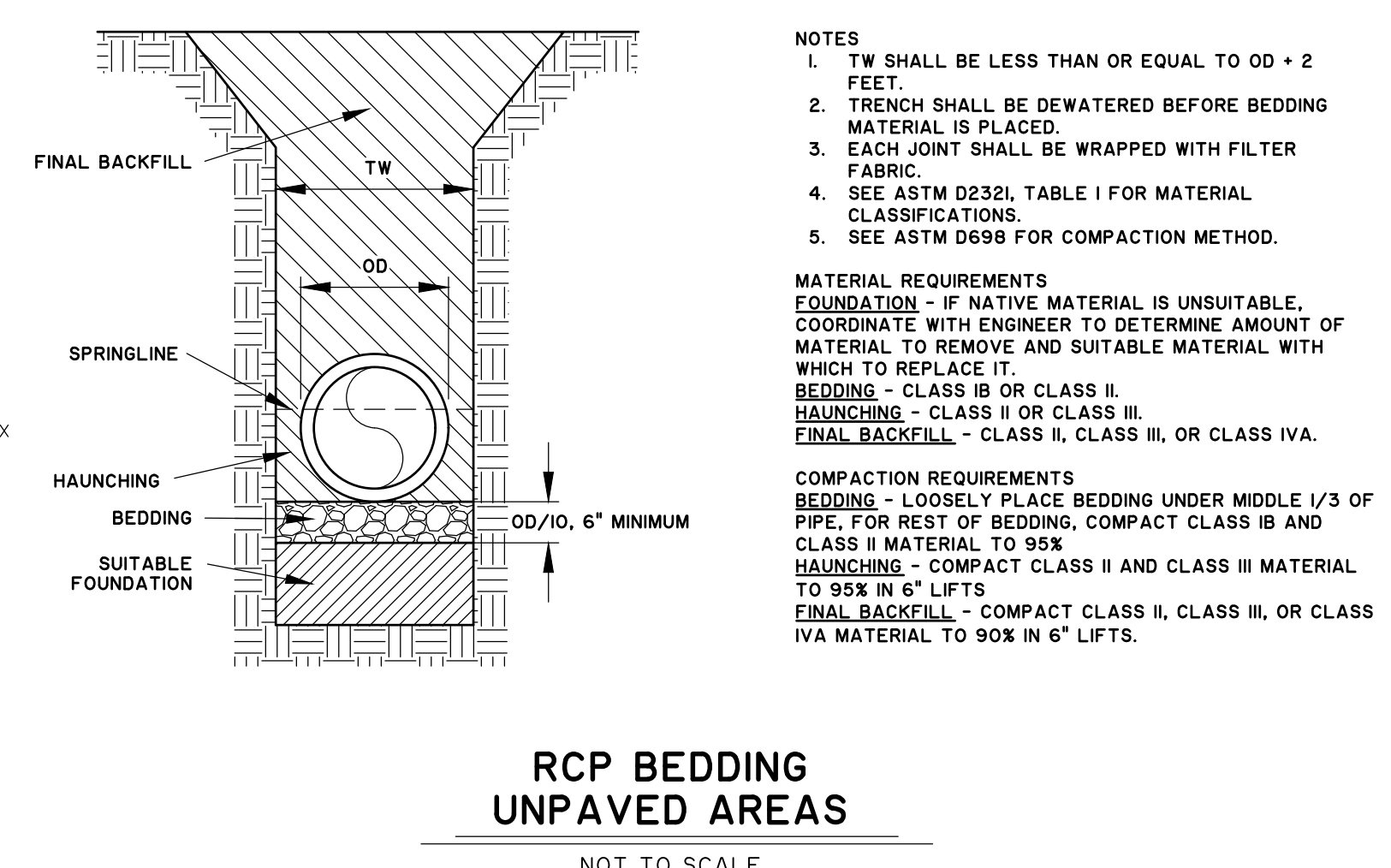
NOTES:
 1. DO NOT USE KNOCKOUT BOXES.
 2. TOP, RISER, AND BASE SHALL CONFORM TO THE LATEST REVISION OF ASTM C913.
 3. USE GRADE 60 REINFORCING STEEL.
 4. PROVIDE AT LEAST 3 INCHES OF COVER ON REINFORCING STEEL.
 5. REINFORCING IN TOP SLAB, VERTICAL WALLS (RISERS), AND BOTTOM SLAB SHALL BE #4 BARS AT 12" O.C. EACH WAY.
 6. CHAMFER ALL EXPOSED CONCRETE EDGES 3/4".



NOTES:
 1. TW SHALL BE LESS THAN OR EQUAL TO OD + 2 FEET.
 2. TRENCH SHALL BE DEWATERED BEFORE BEDDING MATERIAL IS PLACED.
 3. EACH JOINT SHALL BE WRAPPED WITH FILTER FABRIC.
 4. SEE ASTM D2321, TABLE I FOR MATERIAL CLASSIFICATIONS.
 5. SEE ASTM D698 FOR COMPACTION METHOD.

MATERIAL REQUIREMENTS
 FOUNDATION - IF NATIVE MATERIAL IS UNSUITABLE, COORDINATE WITH ENGINEER TO DETERMINE AMOUNT OF MATERIAL TO REMOVE AND SUITABLE MATERIAL WITH WHICH TO REPLACE IT.
 BEDDING - CLASS II OR CLASS III.
 HAUNCHING - CLASS II OR CLASS III.
 FINAL BACKFILL - CLASS II, CLASS III, OR CLASS IVA.

COMPACTION REQUIREMENTS
 BEDDING - LOOSELY PLACE BEDDING UNDER MIDDLE 1/3 OF PIPE. FOR REST OF BEDDING, COMPACT CLASS II AND CLASS III MATERIAL TO 95%
 HAUNCHING - COMPACT CLASS II AND CLASS III MATERIAL TO 95% IN 6" LIFTS
 FINAL BACKFILL - COMPACT CLASS II, CLASS III, OR CLASS IVA MATERIAL TO 95% IN 6" LIFTS



NOTES:
 1. TW SHALL BE LESS THAN OR EQUAL TO OD + 2 FEET.
 2. TRENCH SHALL BE DEWATERED BEFORE BEDDING MATERIAL IS PLACED.
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 HAUNCHING - COMPACT CLASS II AND CLASS III MATERIAL TO 95% IN 6" LIFTS
 FINAL BACKFILL - COMPACT CLASS II OR CLASS III MATERIAL TO 95% IN 6" LIFTS

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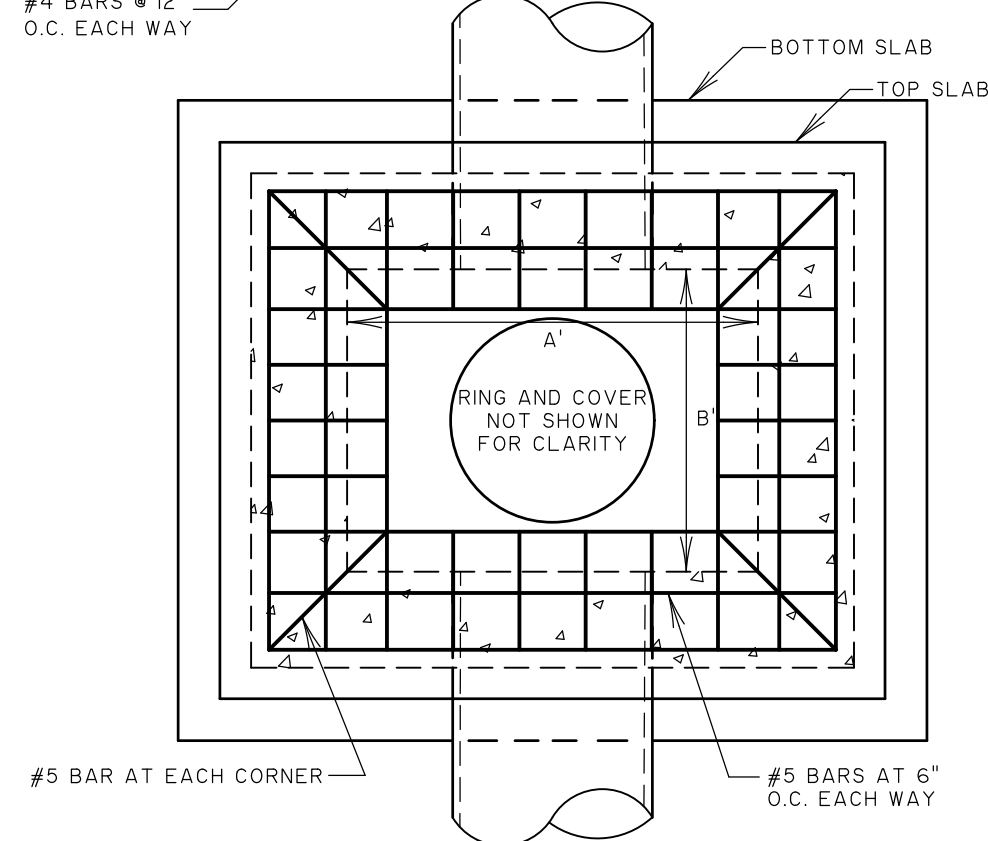
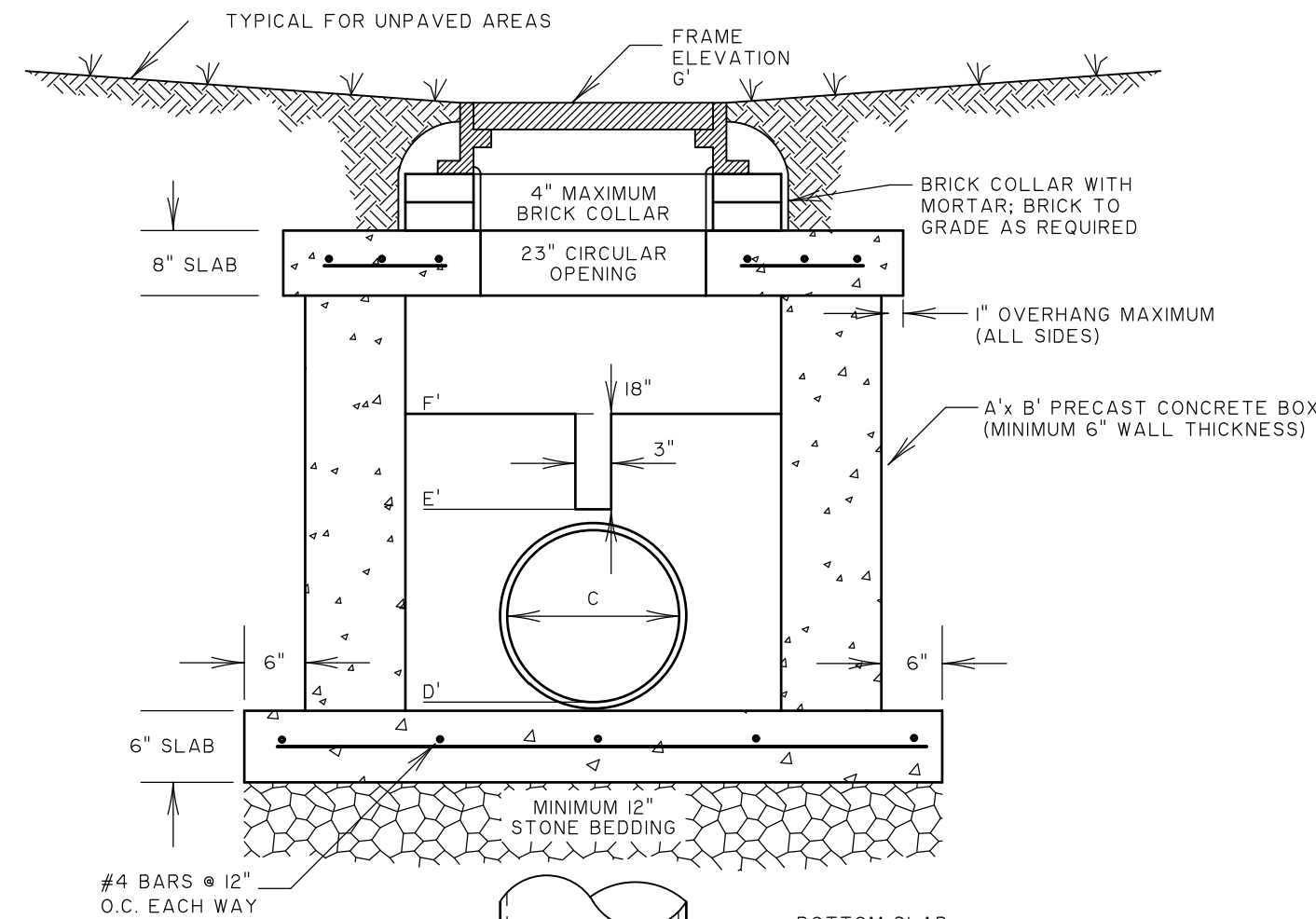
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 DETAILS

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 REVIEWED: DJJ
 APPROVED: DJJ
 SCALE: 1" = 1'

C5.1

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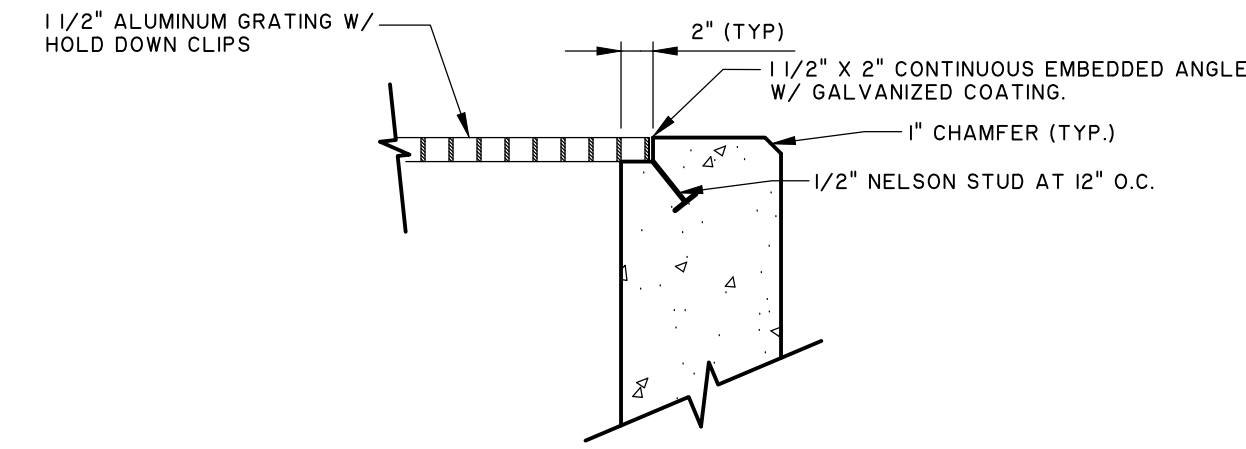


- NOTES:
- DO NOT USE KNOCKOUT BOXES.
 - TOP, RISER, AND BASE SHALL CONFORM TO THE LATEST REVISION OF ASTM C913.
 - USE GRADE 60 REINFORCING STEEL.
 - PROVIDE AT LEAST 3 INCHES OF COVER ON REINFORCING STEEL.
 - REINFORCING IN VERTICAL WALLS (RISERS) SHALL BE #4 BARS AT 12" O.C. EACH WAY.
 - CHAMFER ALL EXPOSED CONCRETE EDGES 3/4"
 - ALL MANHOLE COVERS SHALL CONTAIN LABEL STATING "NO DUMPING - DRAINS TO WATERWAYS"

	A	B	C	D	E	F	G
SMH #BWA-G13	4.0'	4.0'	36"	1.00'	4.00'	5.50'	7.84'

**SMH #BWA-G13
CONTROL STRUCTURE**

NOT TO SCALE



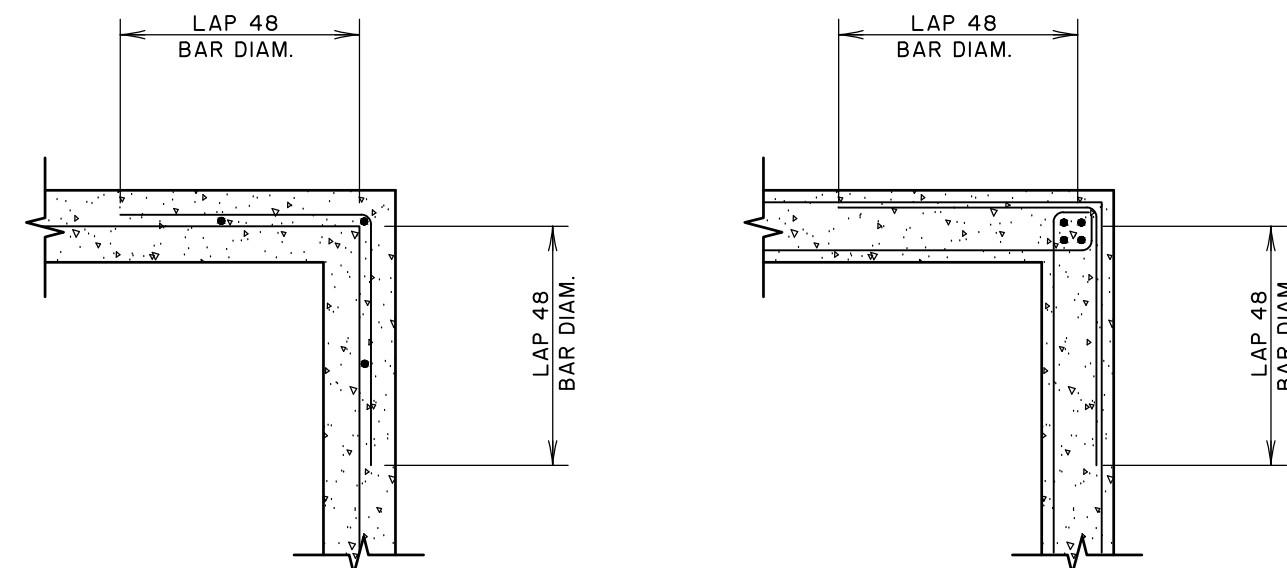
GRATING AND EMBEDDED ANGLE DETAIL

NOT TO SCALE

- ALL ATTACHMENT HARDWARE TO BE A-304 STAINLESS STEEL
- ALUMINUM GRATING TO HAVE A MAXIMUM LIVE LOAD OF 100 PSF AND A MAXIMUM DEFLECTION OF 1/4"

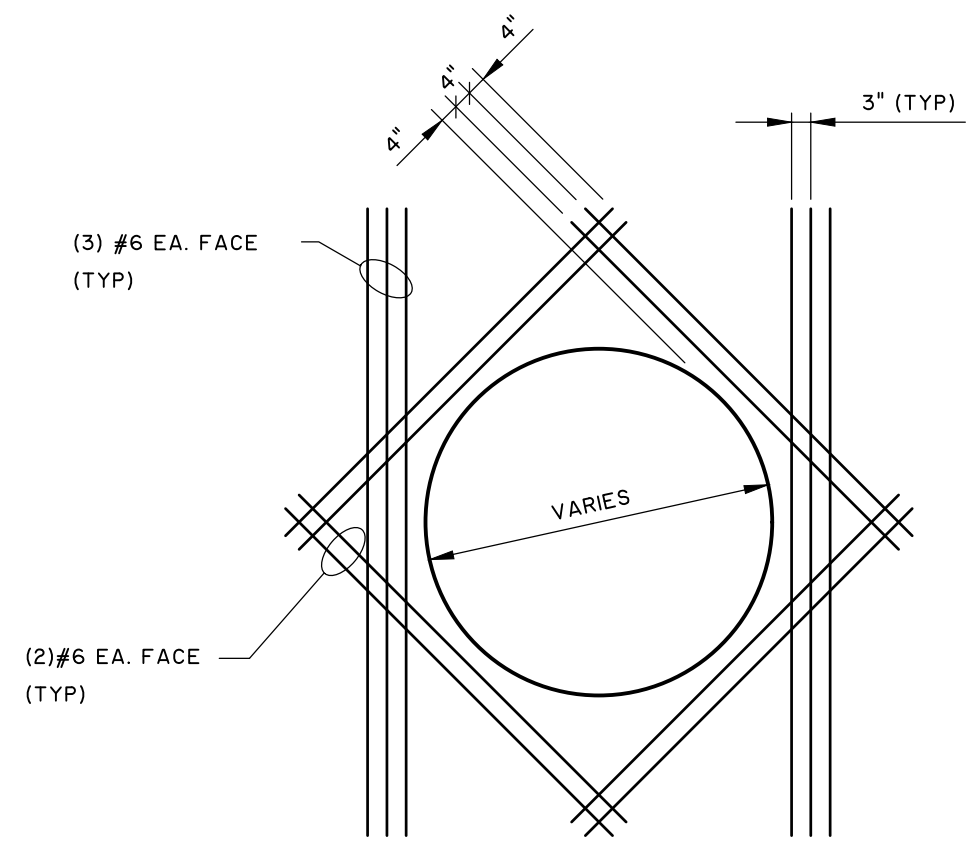
GENERAL NOTES:

- ALL ELEVATIONS SHOWN ARE BASED ON M.S.L. DATUM
- ALL CAST IN PLACE CONCRETE SHALL DEVELOP A MINIMUM COMPRESSIVE STRENGTH OF 4,000 P.S.I. IN 28 DAYS UNLESS NOTED OTHERWISE.
- ALL REINFORCING STEEL SHALL BE DEFORMED BARS CONFORMING TO ASTM A615, GRADE 60.
- ALL DETAILING, FABRICATION, AND PLACING OF REINFORCING STEEL SHALL CONFORM TO "ACI DETAILING MANUAL", ACI SP-66.
- CHAMFER ALL EXPOSED EXTERNAL CORNERS OF CONCRETE WITH A 45 DEGREE CHAMFER AS FOLLOWS:
CONCRETE WALLS: 1"
- ALL BAR SPLICES SHALL BE CLASS "B" TENSION LAP SPLICES (20" MINIMUM LENGTH)
- SPLICE TOP BARS AND SIDE BARS AT MID-SPAN, AND BOTTOM BARS AT THE SUPPORT.
- STAGGER SPLICES OF ADJACENT BARS WHEN BAR SPACING IS LESS THAN 4 1/2".
- PROVIDE 3" MINIMUM OF CONCRETE COVER FOR REINFORCING STEEL WHEN THE CONCRETE IS PLACED DIRECTLY ON THE GROUND.
- CONCRETE KEYS SHALL BE 2" X 4", UNLESS NOTED OTHERWISE.
- CONSTRUCTION JOINTS WILL NOT BE ALLOWED IN WALLS EXCEPT AS LOCATED AND DETAILED ON THE DRAWINGS.
- ALL MISCELLANEOUS METALS INCLUDING BOLTS, WASHERS, NUTS, SLEEVES, ANGLES, INSERTS, PLATES, ETC. EITHER ATTACHED TO OR EMBEDDED IN THE CONCRETE SHALL BE STAINLESS STEEL, UNLESS NOTED OTHERWISE.
- ALL STRUCTURAL STEEL SHALL CONFORM TO ASTM A36, UNLESS NOTED OTHERWISE.
- ALL ALUMINUM GRATING EDGES SHALL BE BANDED.



WALL CORNER DETAIL

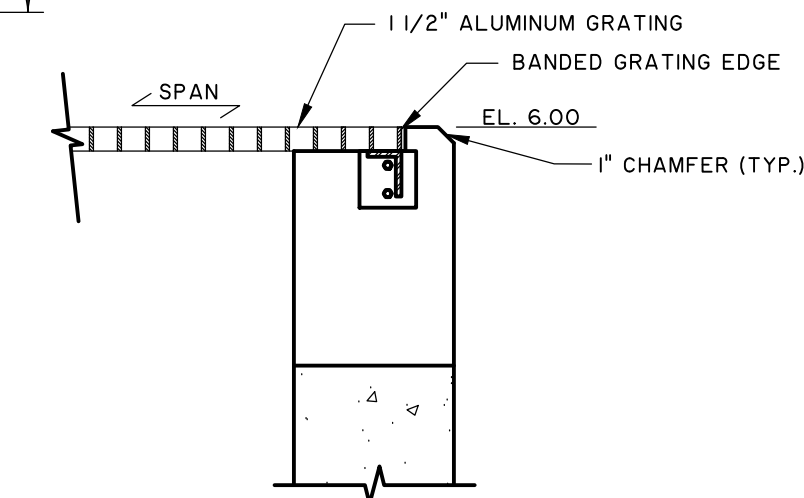
NOT TO SCALE



NOTE:
REGULAR WALL REINF.

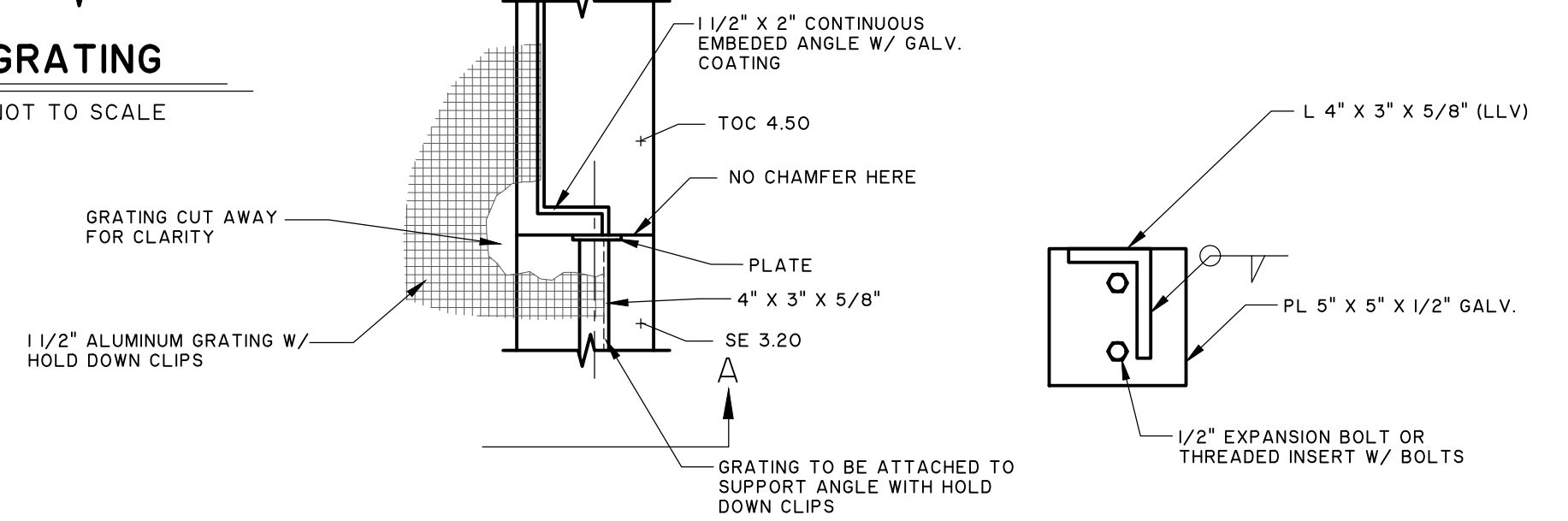
TYPICAL WALL OPENING REINFORCING

NOT TO SCALE



GRATING

NOT TO SCALE



GRATING SUPPORT ANGLE DETAIL

NOT TO SCALE

- ALL ATTACHMENT HARDWARE TO BE A-304 STAINLESS STEEL
- ALUMINUM GRATING TO HAVE A MAXIMUM LIVE LOAD OF 100 PSF AND A MAXIMUM DEFLECTION OF 1/4"

NO.	REVISIONS	BY	DATE

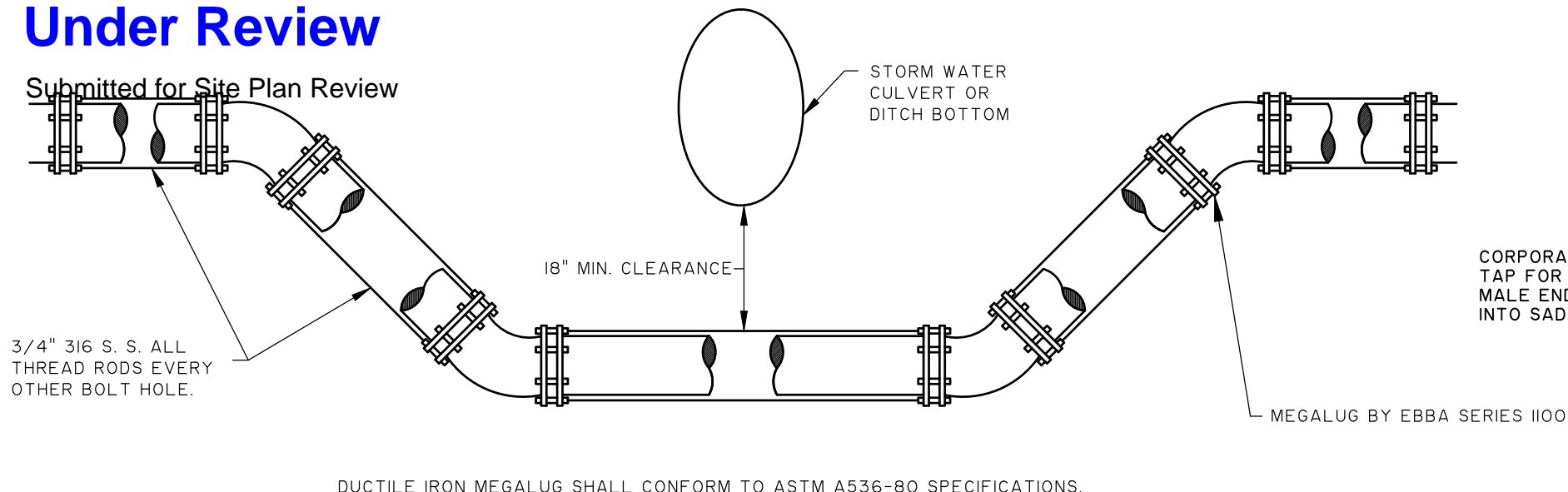
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KRA, LP
KIAWAH ISLAND, SOUTH CAROLINA
OCEAN PINES
DETAILS

JOB NO:	J-25854.0000
DATE:	11/8/22
DRAWN:	LMD
DESIGNED:	LMD
REVIEWED:	DJJ
APPROVED:	DJJ
SCALE:	1" = 1'

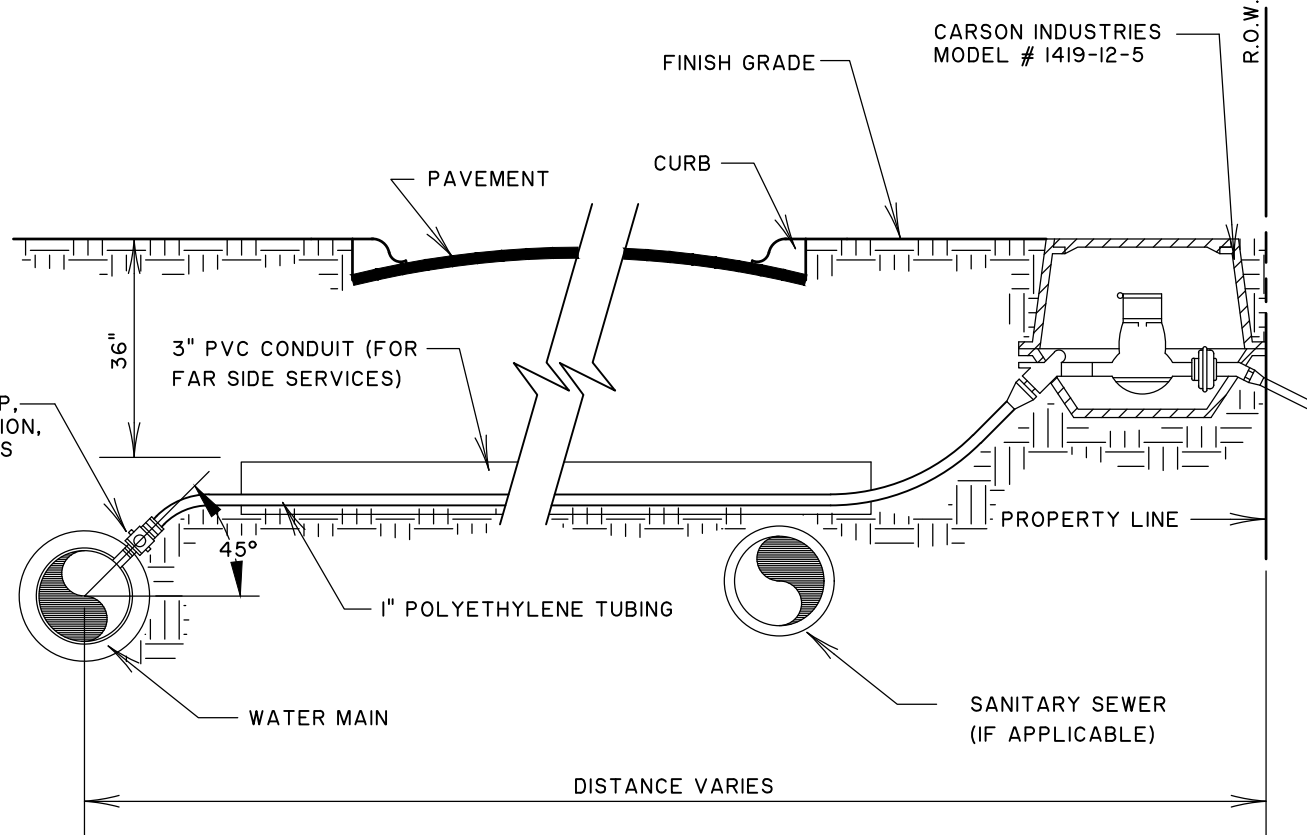
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VERTICAL OFFSET DETAIL

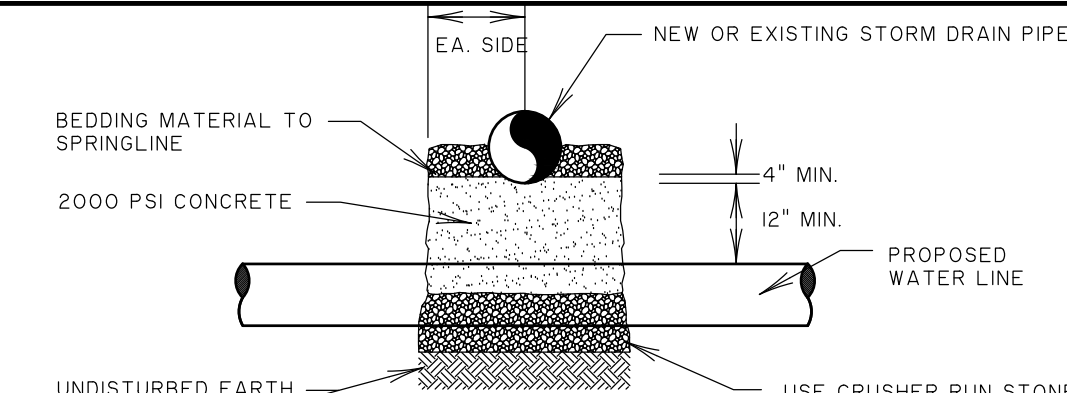
NOT TO SCALE



TYPICAL SINGLE RESIDENTIAL WATER SERVICE

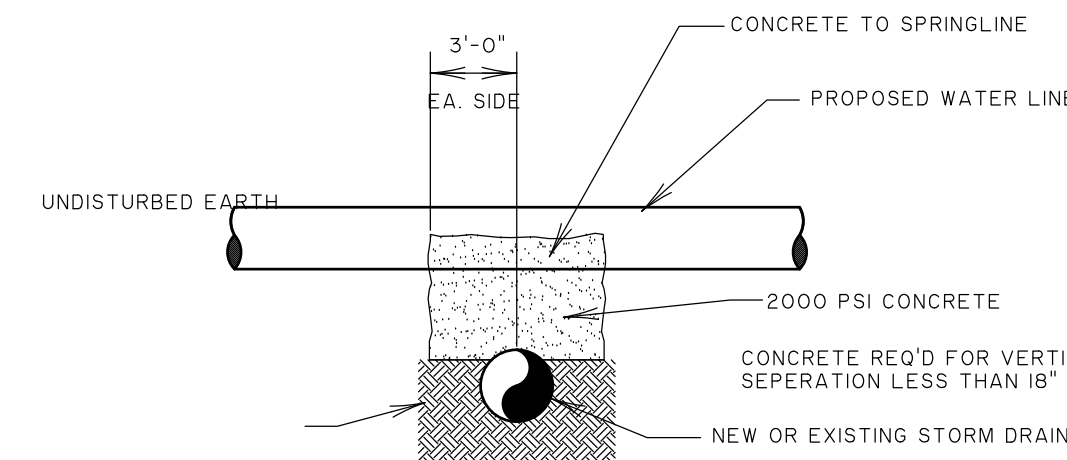
NOT TO SCALE

- CORPORATION STOP TO BE 1" MUELLER # H 15005
- POLYETHYLENE TUBING TO BE 1" IPS 4-04306
- CURB VALVE AND YOKE BOX TO BE CARSON INDUSTRIES MODEL # 1419-12-5
- WATER METER TO BE INSTALLED BY KIAWAH ISLAND UTILITY, INC.
- SEAL ENDS OF SLEEVE WITH WATER PROOF SEALANT
- 3" PVC CASING PIPE SHALL BE INSTALLED UNDER PAVING FOR ALL FAR SIDE SERVICES.



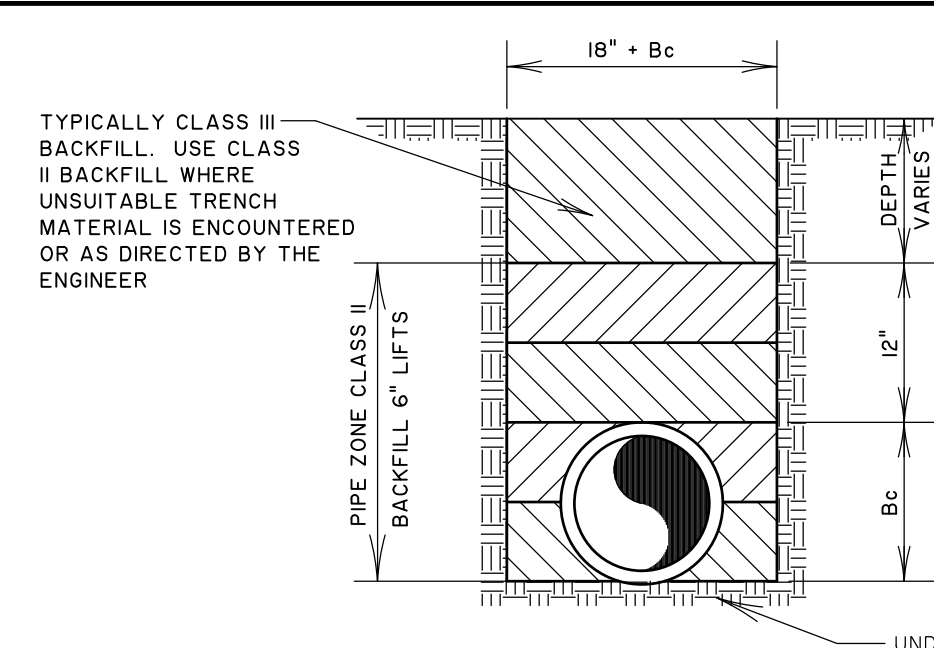
WATER LINE CROSSING BELOW STORM DRAIN

NOT TO SCALE



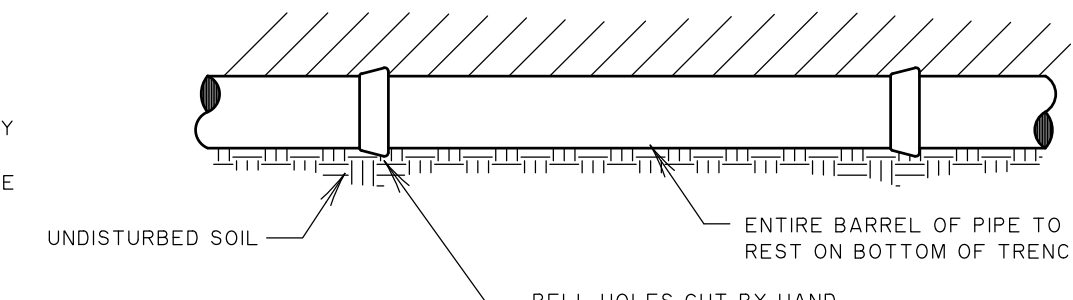
WATER LINE CROSSING ABOVE STORM DRAIN

NOT TO SCALE



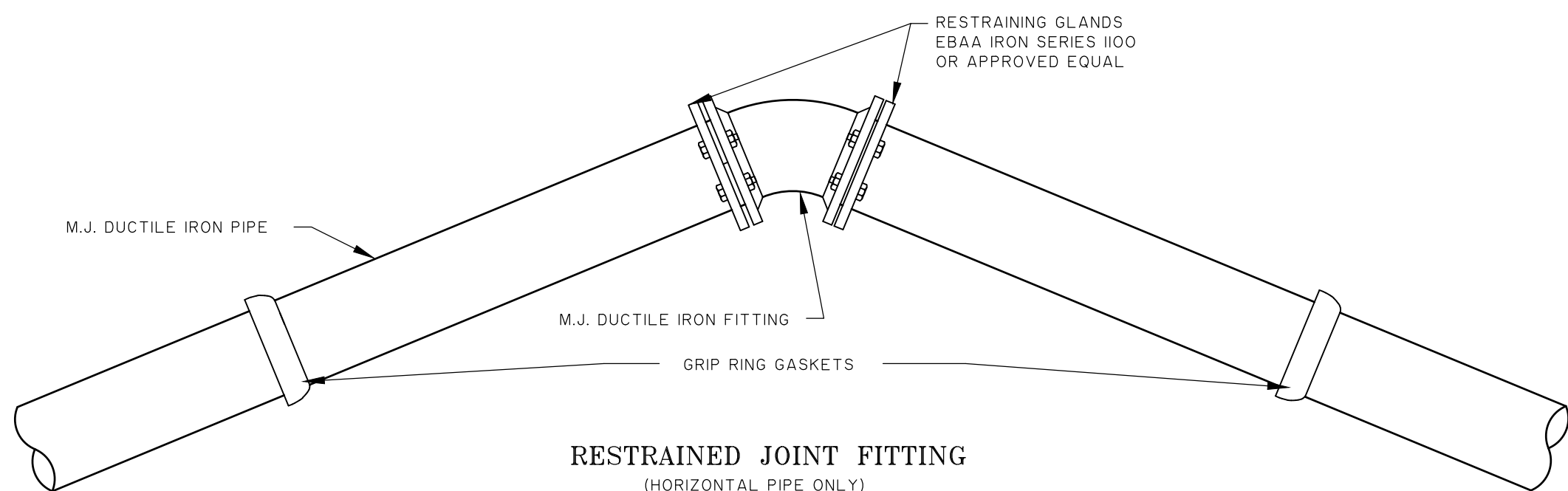
- INSTALL APPROVED METAL DETECTION TAPE 18" FROM FINISHED GRADE.
- FOR INFORMATION ON BACKFILL MATERIAL SEE SANITARY SEWER DETAIL SHEET
- ALL DUCTILE IRON PIPE WATER MAIN SHALL BE ENCASED IN 8 MIL. MINIMUM POLYETHYLENE FILM IN TUBE FORM.

CROSS SECTION



LONGITUDINAL SECTION WATER MAIN BEDDING DETAIL

NOT TO SCALE



RESTRAINED JOINT FITTING (HORIZONTAL PIPE ONLY)

NOT TO SCALE

NOTES:

- THE FOLLOWING CONDITIONS WERE USED TO CALCULATE THE RESTRAINED LENGTHS:
LAYING CONDITION IS TYPE 3;
SOIL DESIGNATED AS SAND-SILT;
DEPTH IS 3 FT.;
DESIGN PRESSURE (TEST) IS 150 PSI;
SAFETY FACTOR IS 1.5.
FOR THE TEE BRANCH AND REDUCER, LENGTHS IN THE TABLE BELOW ARE BASED ON BRANCHING AND REDUCING FROM THE NEXT LARGER SIZE IN THE TABLE. DEVIATIONS FROM THESE CONDITIONS MUST BE BASED ON THE ABOVE PARAMETERS.
- JOINT RESTRAINT SHALL BE:
FOR PVC (4"-12") : EBAA SERIES 1500 RESTRAINT HARNESS OR APPROVED EQUIVALENT
FOR DIP : EBAA SERIES 1700 RESTRAINT HARNESS OR APPROVED EQUIVALENT

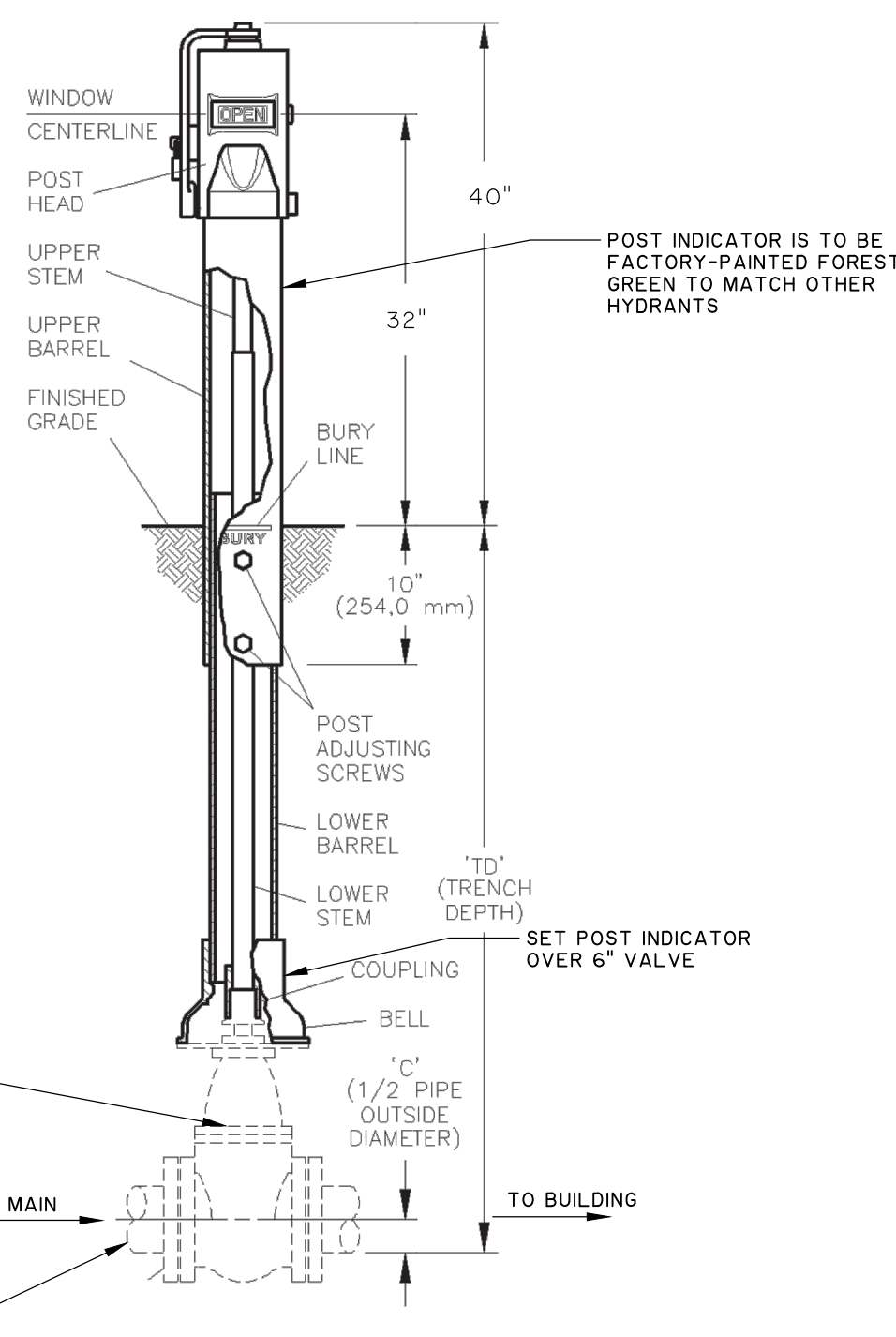
RESTRAINED JOINT TABLE								
LENGTH OF RESTRAINED JOINT REQUIRED (IN L.F. EACH SIDE OF THE BEND)								
SIZE	1 1/4"	2 1/2"	4 5/8"	90°	TEE BRANCH	DEAD END	REDUCER	VALVE
4"	2	5	10	24	37	60	44	60
6"	3	7	14	33	64	85	46	85
8"	4	9	18	43	90	110	46	110
10"	5	10	21	51	113	133	50	133
12"	10	20	30	60	140	160	60	160

RESTRAINED JOINT FITTING

NOT TO SCALE

GENERAL NOTES

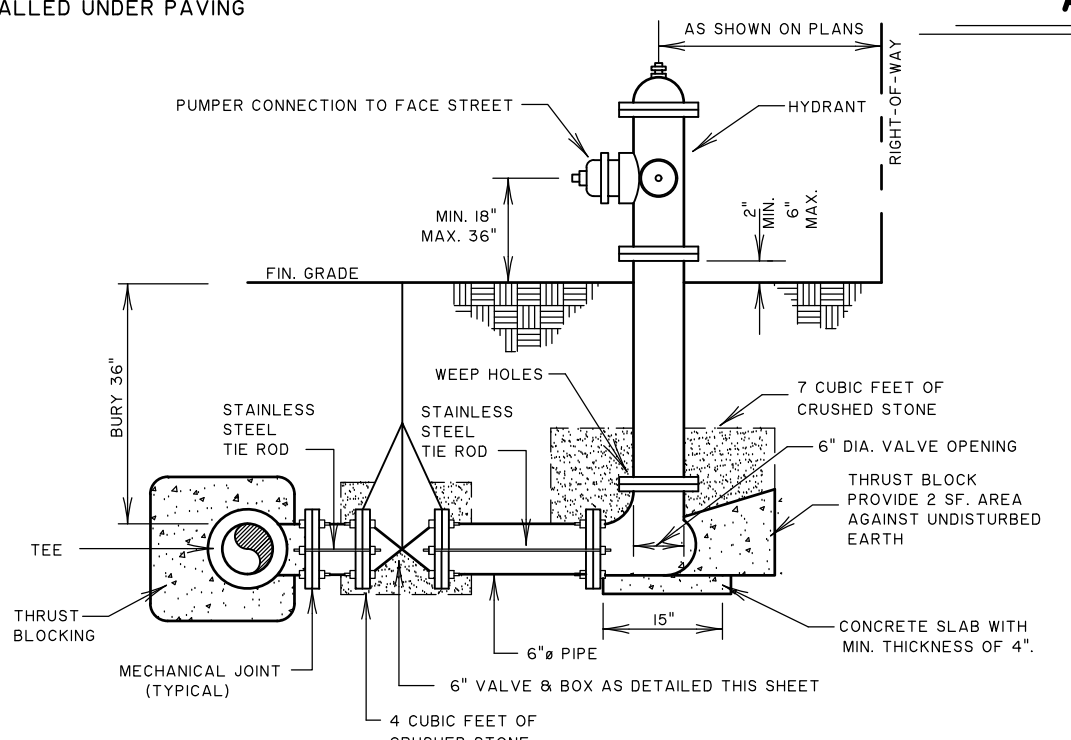
- ALL VALVES AND HYDRANTS SHALL OPEN COUNTER CLOCKWISE.
- THE CONTRACTOR MUST CALL KIAWAH ISLAND UTILITY, INC. 72 HOURS PRIOR TO TAPPING THE MAIN WATER LINE, PERFORMING A PRESSURE TEST, OR CONDUCTING BACTERIOLOGICAL TESTS. KIAWAH ISLAND UTILITY, INC. WILL HAVE A COMPANY REPRESENTATIVE ON SITE FOR EACH OF THESE EVENTS. KIAWAH ISLAND UTILITY, INC. MUST ALSO BE NOTIFIED AND PRESENT FOR THE INSPECTION OF ALL HYDRANTS, VALVES, AND THRUST BLOCKS PRIOR TO THEM BEING COVERED.
- AFTER A SUCCESSFUL PRESSURE TEST, THE CONTRACTOR MUST CONDUCT BACTERIOLOGICAL TESTS ACCORDING TO SC DHC REGULATIONS. TWO SAMPLES MUST SHOW NEGATIVE BACTERIOLOGICAL RESULTS OR THE PROCESS MUST BE REPEATED. THE CONTRACTOR IS RESPONSIBLE FOR ALL COSTS OF ALL TESTING, INCLUDING WATER USED IN FLUSHING.
- ALL NEW FIRE HYDRANTS MUST BE TESTED FOR STATIC AND RESIDUAL FLOWS AND THE FLOWS AT 20 PSI.
- KIAWAH ISLAND UTILITY, INC. SHALL HAVE THE RIGHT OF ENTRY TO THE CONSTRUCTION SITE TO OBSERVE AND VERIFY THAT THE CONSTRUCTION IS IN ACCORDANCE WITH THE APPROVED PLANS AND SPECIFICATIONS AND TO WITNESS TESTING OF THE SYSTEM.



VERTICAL POST INDICATOR

NOT TO SCALE

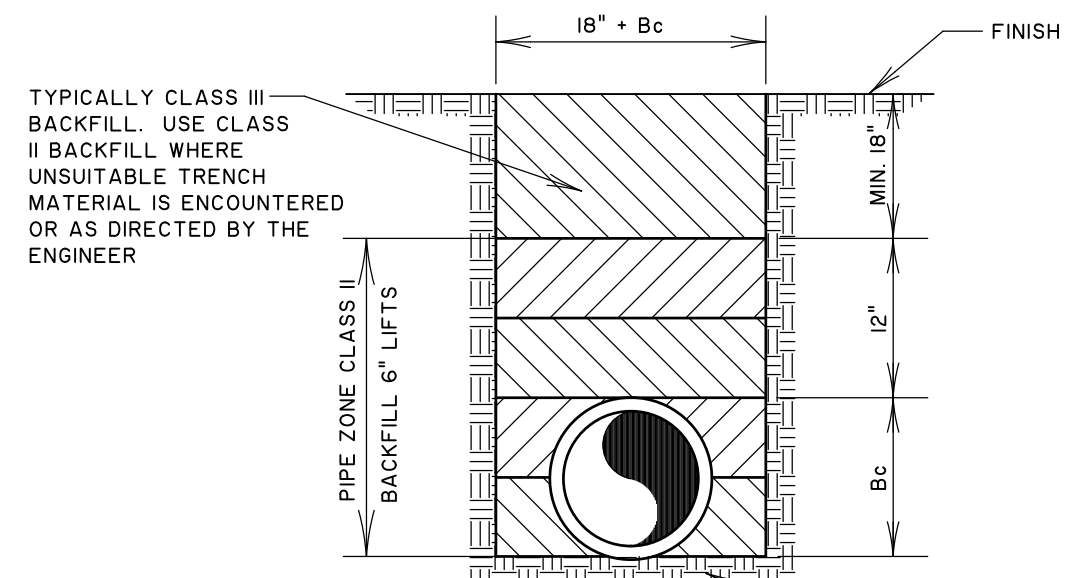
- TRENCH DEPTH OF 6" PIPE IS TO BE MIN. 30"
- GATE VALVE TO BE DIP BODY CONFORMING TO AWWA C-509-09 WITH A WORKING PRESSURE RATING OF 200 PSI.
- VERTICAL POST INDICATOR TO BE MUELLER A-20806 OR EQUAL.



- FIRE HYDRANT TO BE PLACED A MIN. OF 3' FROM EDGE OF PAVEMENT AND BACK OF CURB.
- PUMPER CONNECTION TO FACE STREET AND HOSE CONNECTIONS SHALL BE FREE OF OBSTRUCTIONS.
- TOP OF VALVE BOXES TO BE 1" ABOVE FINISHED GRADE IN UNPAVED AREAS AND FLUSH IN PAVED AREAS.
- ALL FIRE HYDRANTS ARE TO BE FACTORY PAINTED FOREST GREEN.
- FIRE HYDRANT TO BE 5 1/4" MAIN NOZZLE, OPEN LEFT, AMERICAN DARLING 6" B-84-B-A OR MUELLER SUPER CENTURION 250.

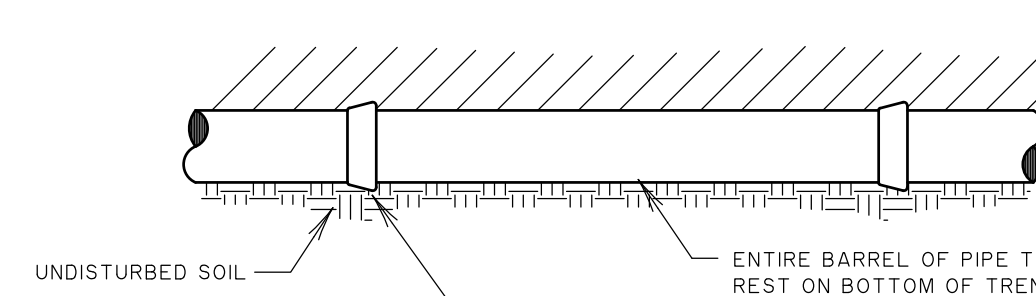
FIRE HYDRANT DETAIL

NOT TO SCALE



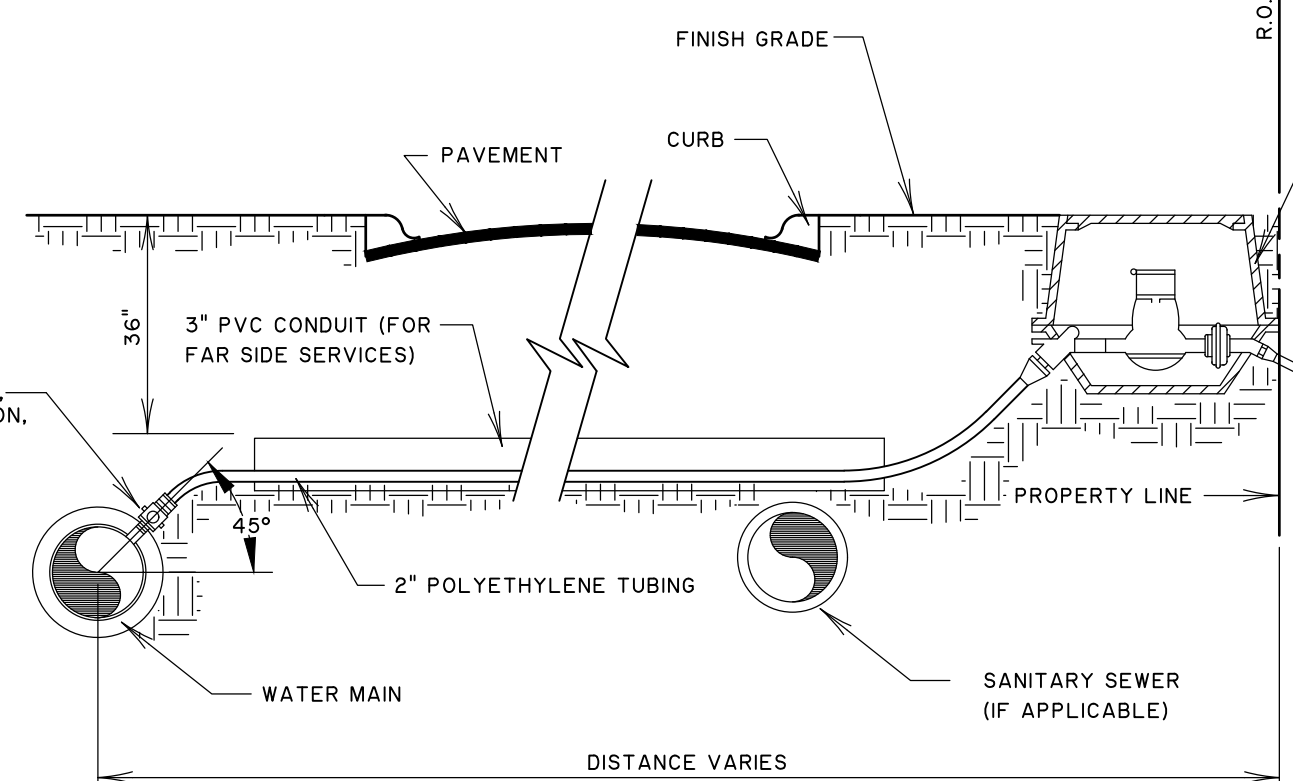
- INSTALL APPROVED METAL DETECTION TAPE 18" FROM FINISHED GRADE.
- FOR INFORMATION ON BACKFILL MATERIAL SEE SANITARY SEWER DETAIL SHEET
- ALL DUCTILE IRON PIPE WATER MAIN SHALL BE ENCASED IN 8 MIL. MINIMUM POLYETHYLENE FILM IN TUBE FORM.

CROSS SECTION



FIRE MAIN BEDDING DETAIL

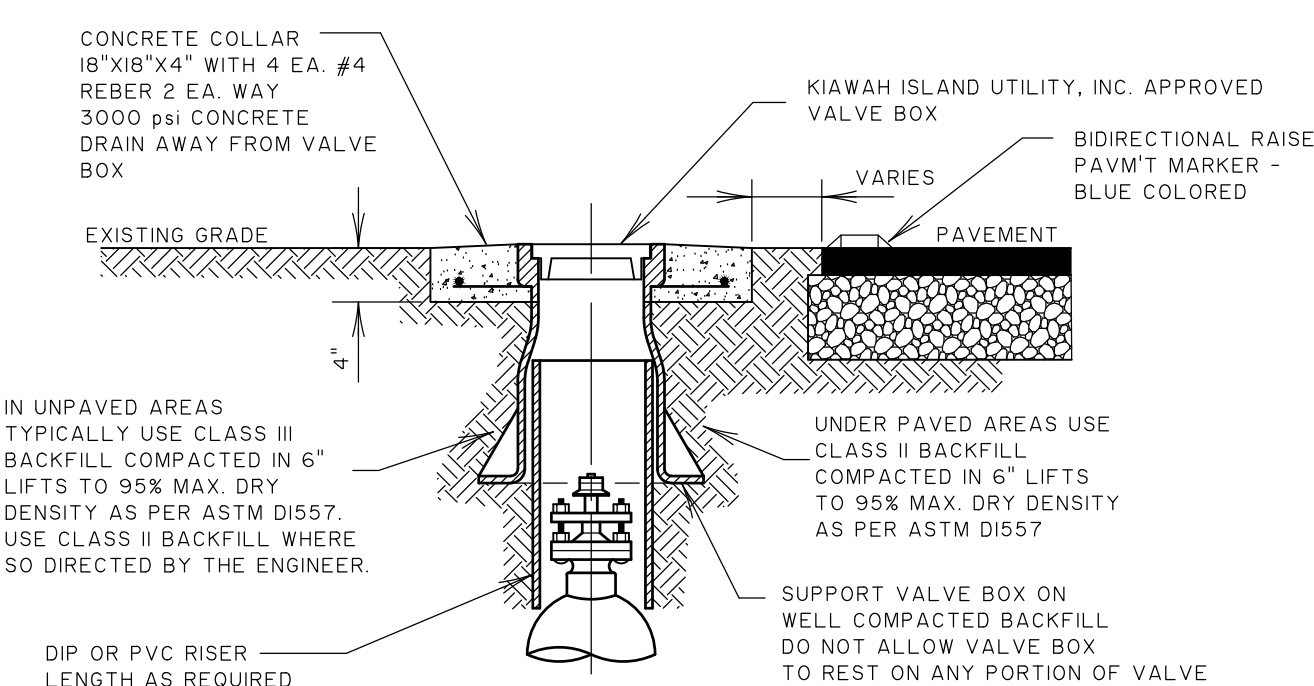
NOT TO SCALE



TYPICAL MULTI-FAMILY BUILDING WATER SERVICE

NOT TO SCALE

- CORPORATION STOP TO BE 2" MUELLER # H 15005
- POLYETHYLENE TUBING TO BE 2" IPS 4-04306
- CURB VALVE AND YOKE BOX TO BE CARSON INDUSTRIES MODEL # 1419-12-5
- WATER METER TO BE INSTALLED BY KIAWAH ISLAND UTILITY, INC.
- SEAL ENDS OF SLEEVE WITH WATER PROOF SEALANT
- 3" PVC CASING PIPE SHALL BE INSTALLED UNDER PAVING FOR ALL FAR SIDE SERVICES.



- IN UNPAVED AREAS TYPICALLY USE CLASS III BACKFILL COMPACTED IN 6" LIFTS TO 95% MAX DRY DENSITY AS PER ASTM D1557. USE CLASS II BACKFILL WHERE SO DIRECTED BY THE ENGINEER.
- UNDER PAVED AREAS USE CLASS II BACKFILL COMPACTED IN 6" LIFTS TO 95% MAX DRY DENSITY AS PER ASTM D1557
- SUPPORT VALVE BOX ON WELL COMPACTED BACKFILL DO NOT ALLOW VALVE BOX TO REST ON ANY PORTION OF VALVE

NOTES:

- CENTER VALVE BOX OVER OPERATING NUT TO INSURE FREE VALVE OPERATION.
- USE 6" RISER PIPE ON 4" AND 6" VALVES.
- USE 8" RISER PIPE ON 8" VALVES AND LARGER.
- LOCATION OF VALVE SHALL BE MARKED WITH A CLEAR BIDIRECTIONAL RAISED PAVEMENT MARKER ON THE EDGE OF PAVEMENT NEAR THE VALVE.

VALVE BOX DETAIL

NOT TO SCALE

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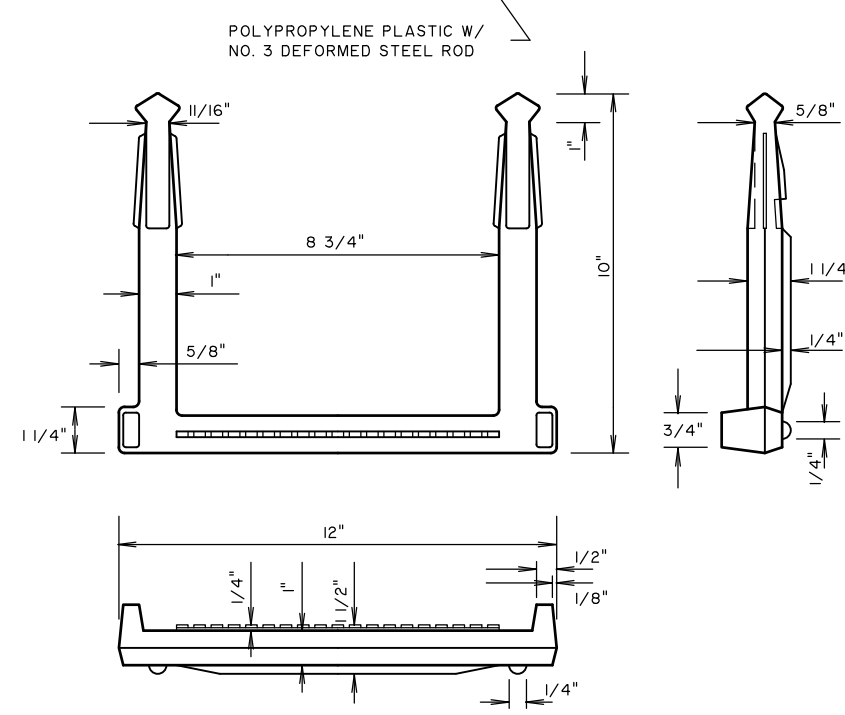
KRA, LP
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 WATER DETAILS

JOB NO:	J-25854.0000
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DRAWN:	LMD
DESIGNED:	LMD
REVIEWED:	DJJ
APPROVED:	DJJ
SCALE:	1" = 1'

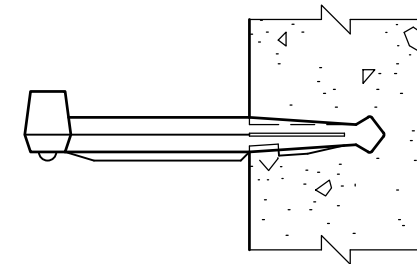
C5.3

Under Review

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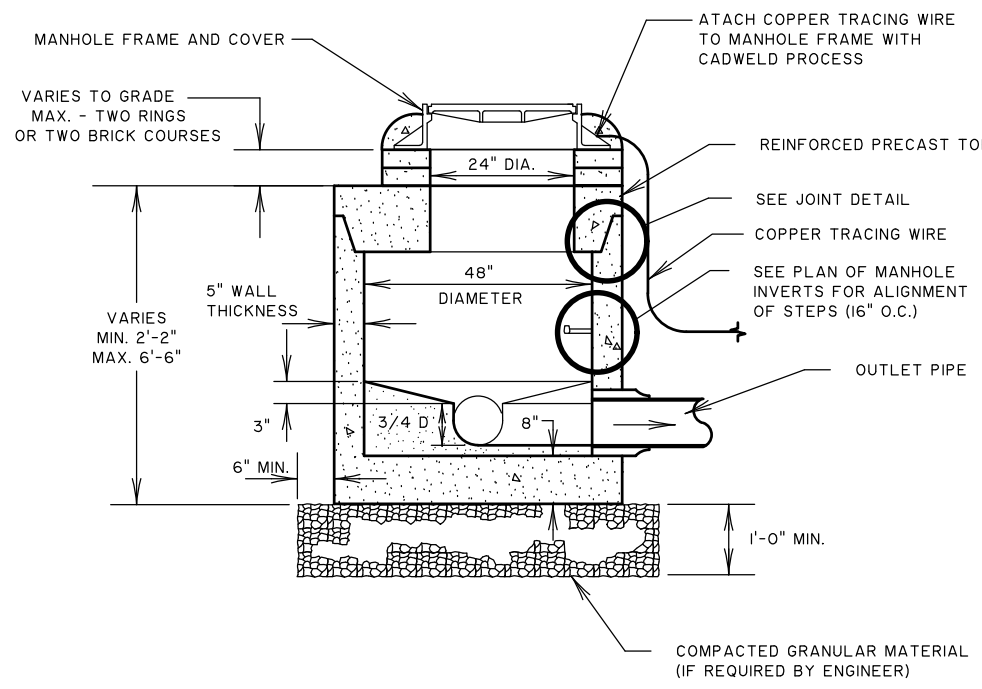


MANHOLE STEPS SHALL BE M.A. IND. INC. MODEL NO. PSI OR AN APPROVED EQUAL.



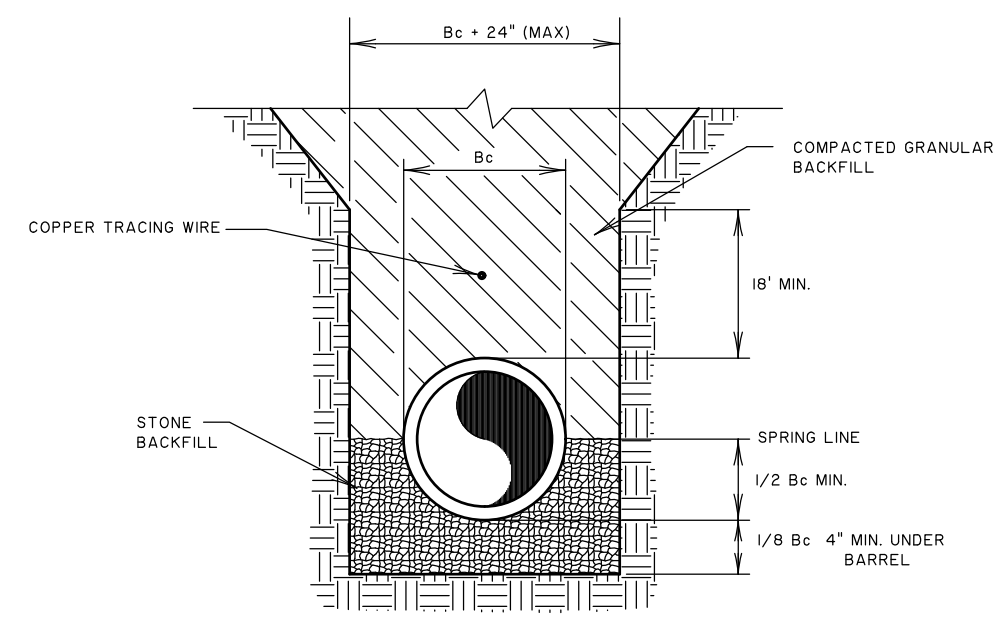
MANHOLE STEP DETAIL

NOT TO SCALE

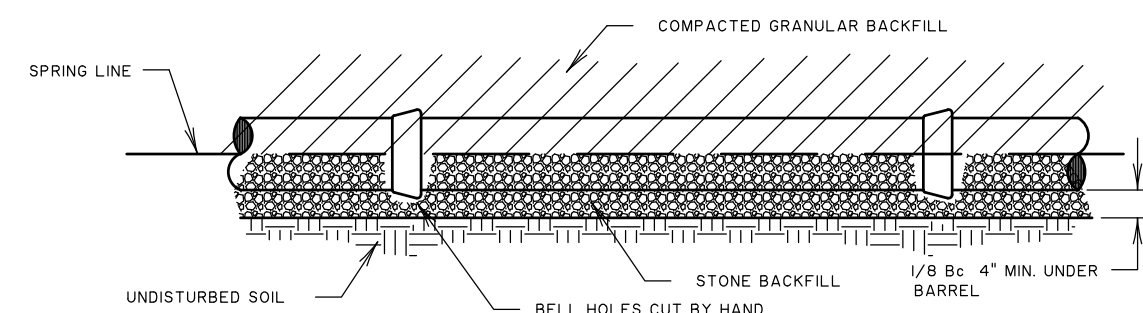


STANDARD PRECAST SHALLOW MANHOLE

NOT TO SCALE

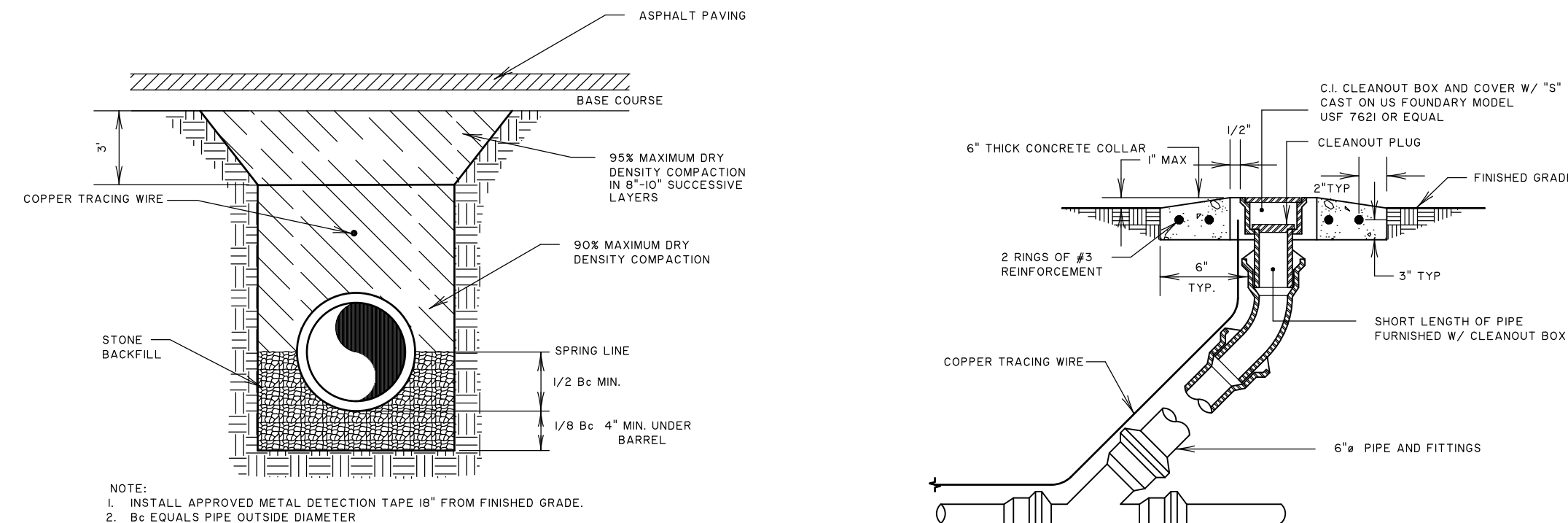


CROSS SECTION



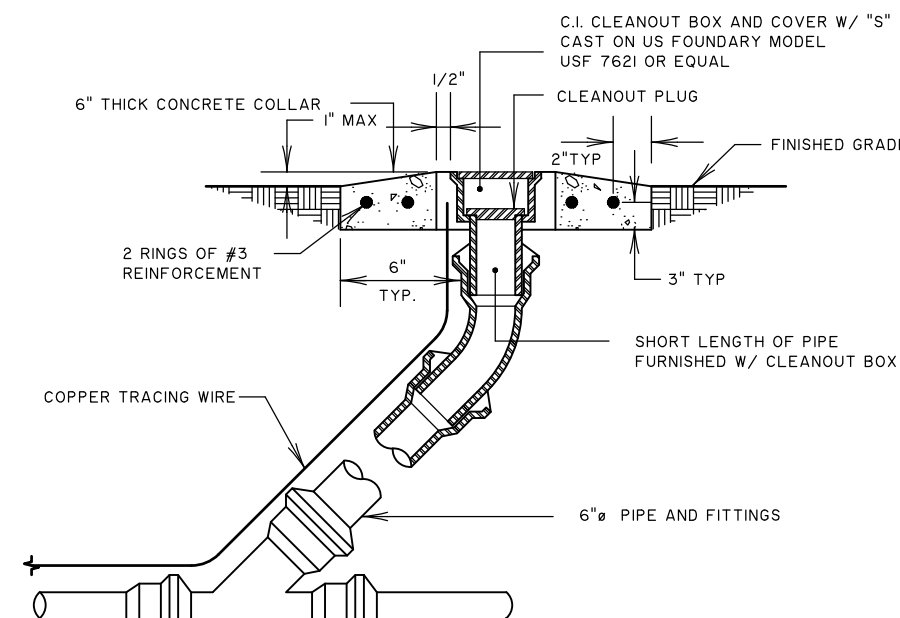
SEWER LINE BEDDING DETAIL

NOT TO SCALE



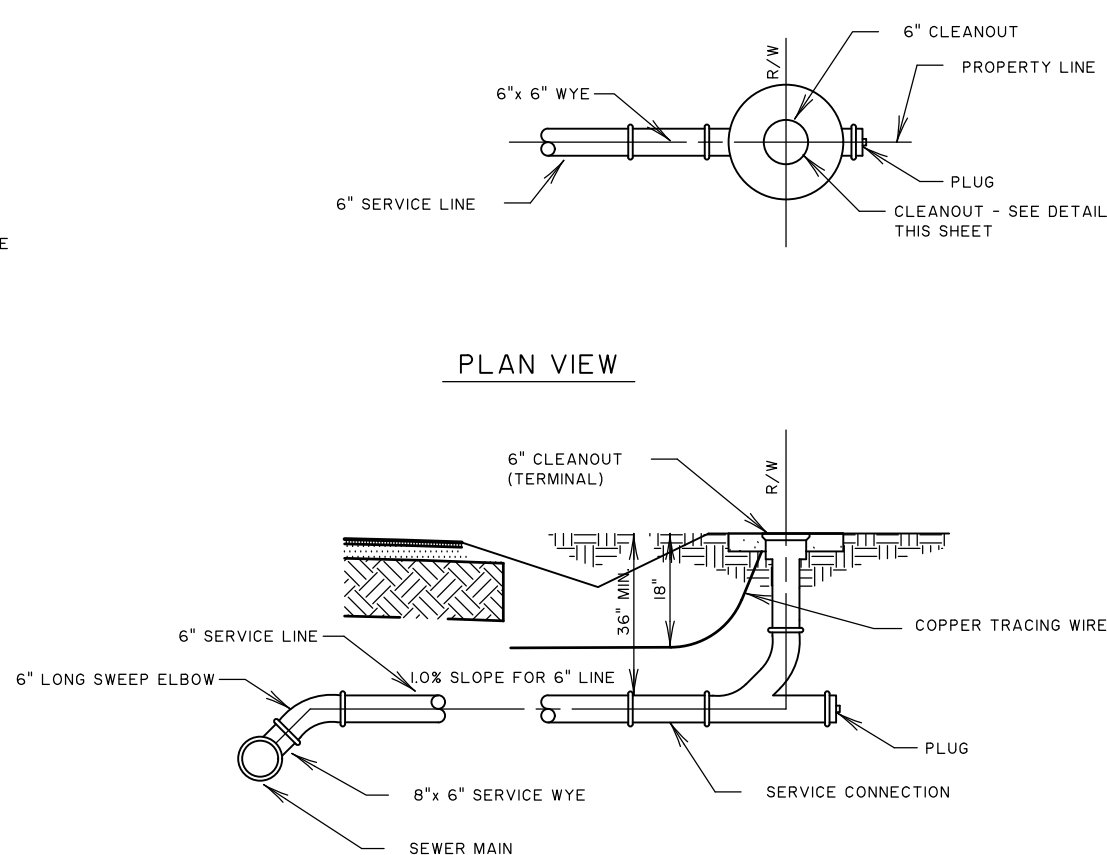
SEWER LINE BEDDING DETAIL UNDER PAVED AREAS

NOT TO SCALE



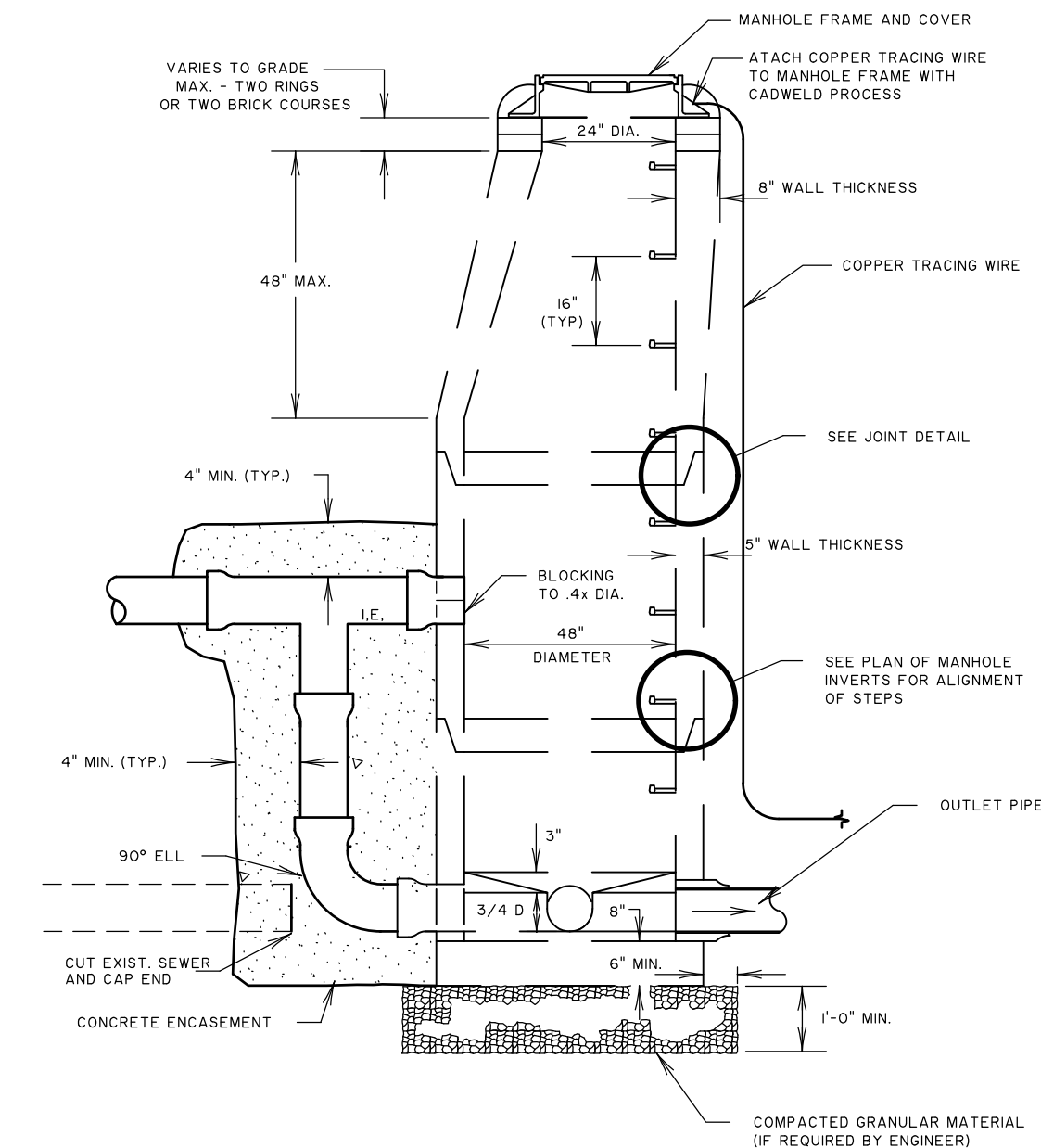
CLEANOUT DETAIL

NOT TO SCALE



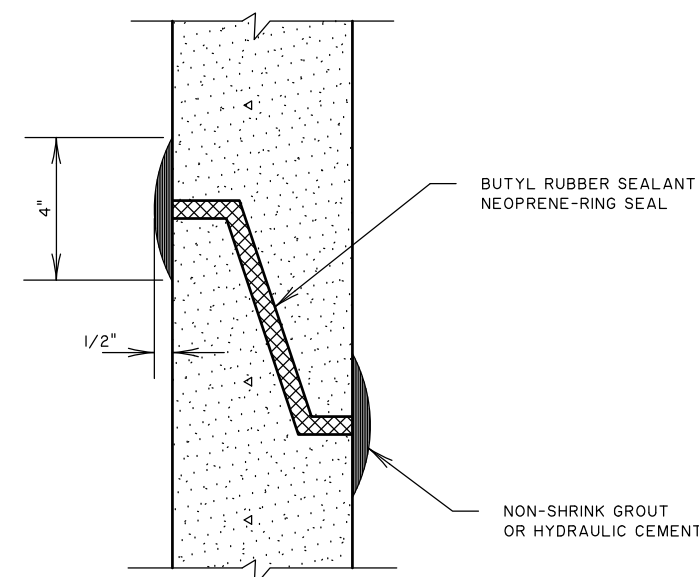
SINGLE SEWER SERVICE DETAIL

NOT TO SCALE



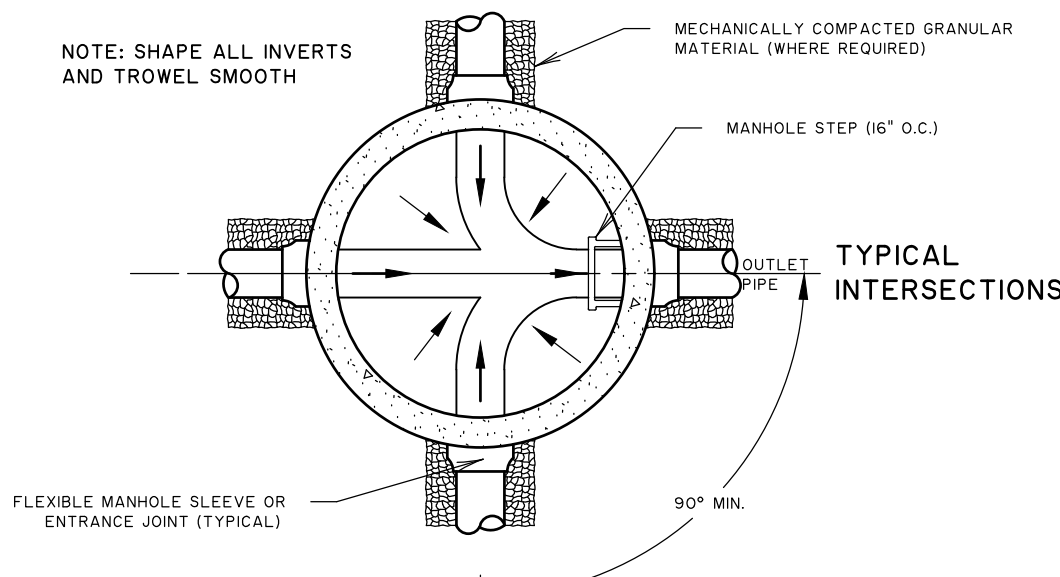
STANDARD DROP MANHOLE

NOT TO SCALE



PRECAST MANHOLE TYPICAL JOINT DETAIL

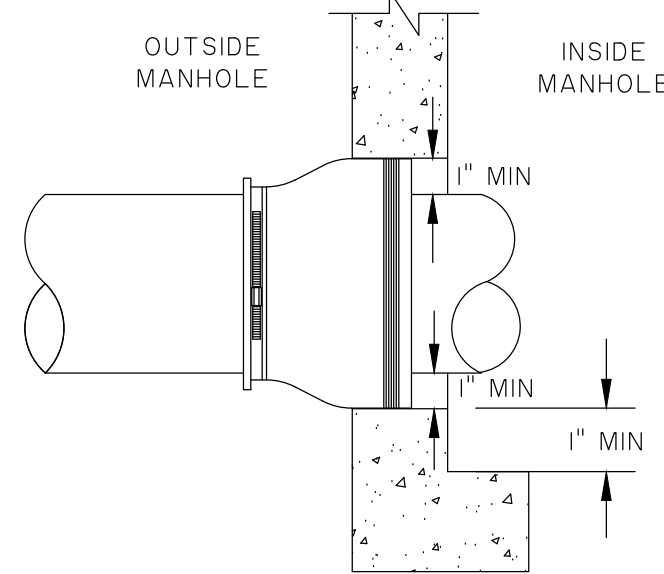
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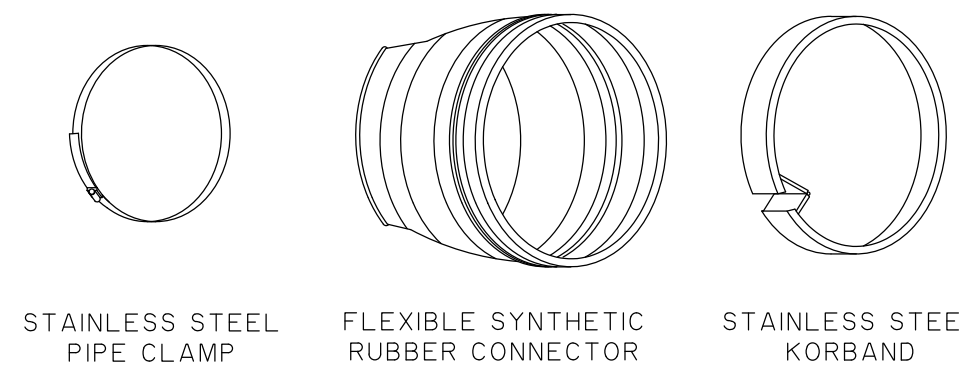
PLAN OF MANHOLE INVERTS

NOT TO SCALE

- NOTES:
1. NEOPRENE BOOT, KOR-N-SEAL OR EQUAL, TO BE USED ON ALL PRECAST MANHOLES WITH ALL TYPES OF PIPES.
 2. EXTERNAL BAND (300-SERIES NON-MAGNETIC CORROSION-RESISTANT STEEL).
 3. KORBAND (6061-T6 ALUMINUM ALLOY WITH A BLACK ANODIZED SURFACE).



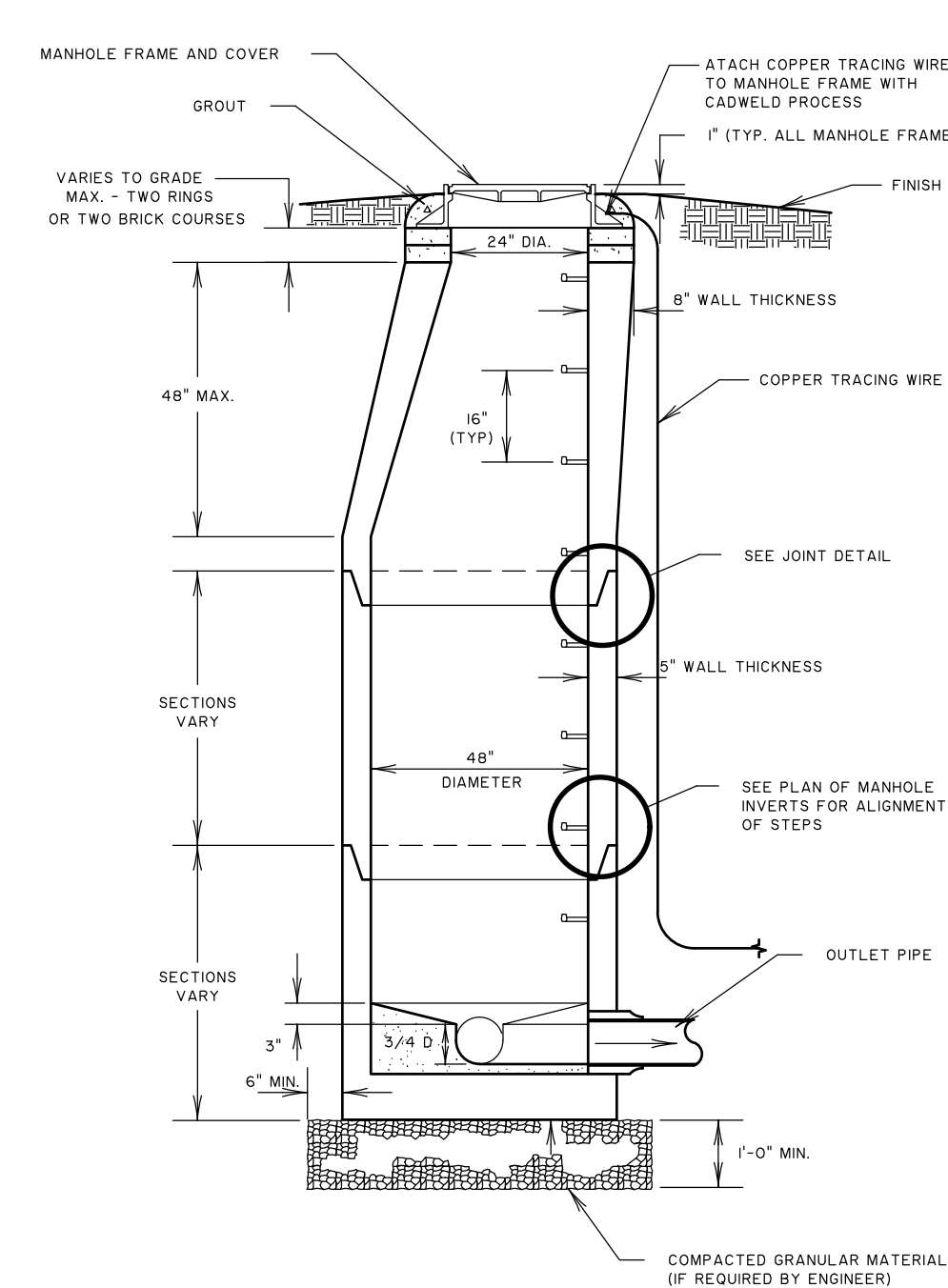
WALL SECTION



TYPICAL PARTS

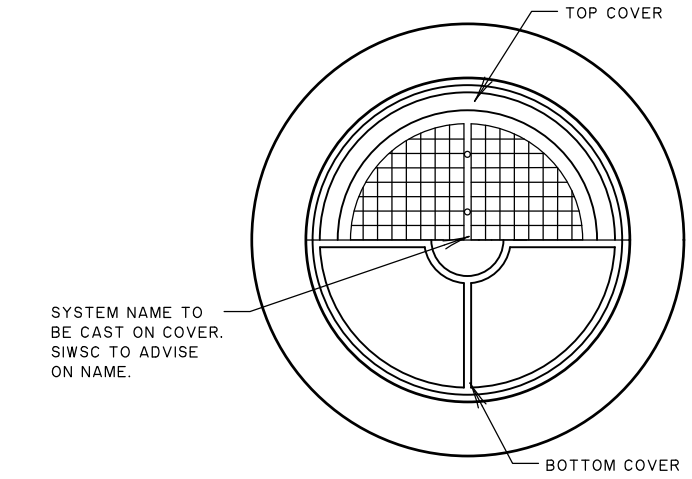
FLEXIBLE MANHOLE SLEEVE

NOT TO SCALE



STANDARD PRECAST MANHOLE

NOT TO SCALE



MANHOLE COVER AND FRAME DETAIL

NOT TO SCALE

NOTE: CASTINGS SHALL BE OF UNIFORM QUALITY; FREE FROM BLOWHOLES, POROSITY, HARD SPOTS, SHRINKAGE, DISTORTION OR OTHER DEFECTS. THEY SHALL BE SMOOTH AND WELL CLEANED BY SHOTBLASTING OR BY OTHER APPROVED METHOD. UNLESS AN ALTERNATIVE SPECIFICATION IS MADE THEY SHALL BE COATED W/ ASPHALT PAINT WHICH SHALL RESULT IN A SMOOTH COATING, TOUGH AND TENACIOUS WHEN COLD, NOT TACKY AND NOT BRITTLE.

MATERIALS USED IN THE MANUFACTURE OF CASTINGS SHALL CONFORM TO ASTM, AASHTO, AAS, M.A. AND FEDERAL SPECIFICATIONS FOR IRON OR DUCTILE IRON, AS FOLLOWS: GRAY IRON-ASTM CLASS 30, DUCTILE IRON-GRADE 60-40-18.

ALL CASTINGS SHALL BE MANUFACTURED TRUE TO PATTERN; COMPONENT PARTS SHALL FIT TOGETHER IN A SATISFACTORY MANNER. ROUND FRAMES AND COVERS SHALL BE OF NON-ROCKING DESIGN, OR SHALL HAVE MACHINED BEARING SURFACES TO PREVENT ROCKING AND RATTLING UNDER TRAFFIC.

ALL WEIGHTS GIVEN ARE AVERAGE (AND APPROXIMATE) VALUES. DEVIATIONS SHALL NOT EXCEED TOLERANCES PERMITTED BY ASTM STANDARDS. CASTINGS TO MATCH EXISTING SWSCA STANDARD.

NO.	REVISIONS	BY	DATE

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