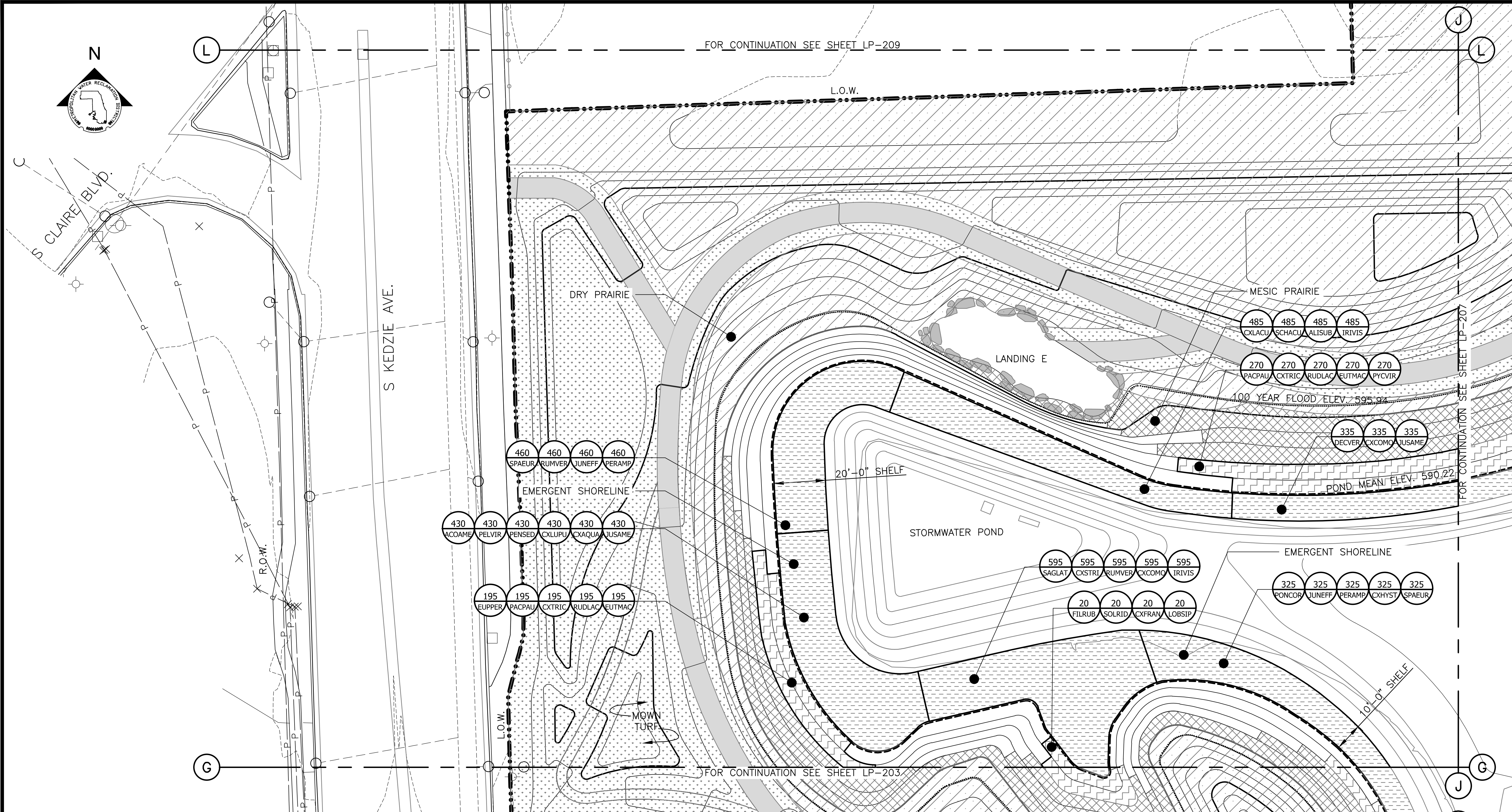


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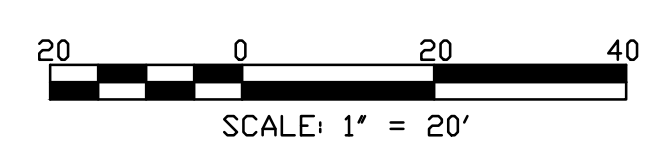
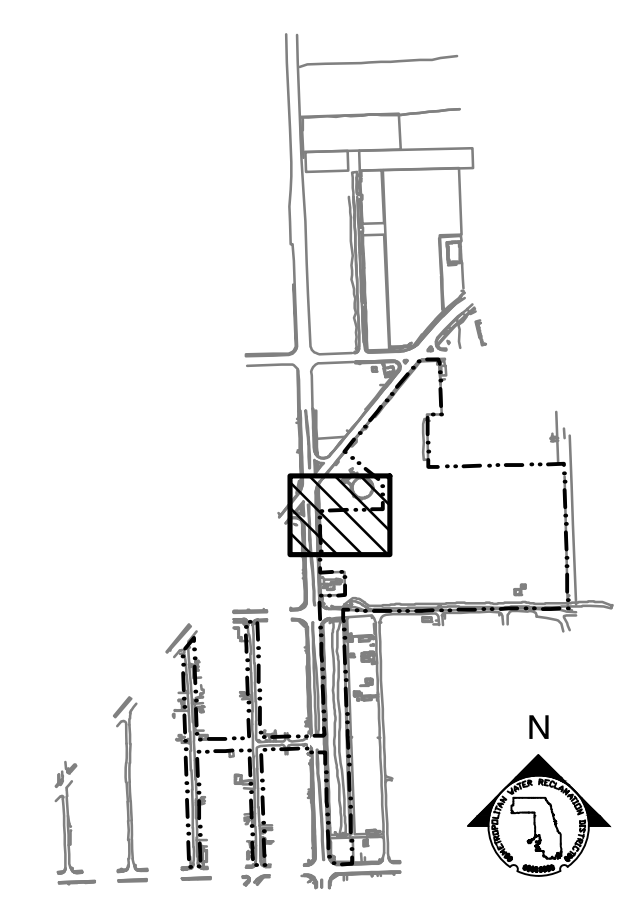
PLANTING NOTES:

1. REFERENCE NOTES ON LANDSCAPE DRAWING LP-101
2. FOR PLANTING SCHEDULES, REFERENCE DRAWINGS LP-222 & LP-223.

LEGEND:

- L.O.W. --- LIMIT OF WORK
- WOUS --- WATERS OF UNITED STATES
- CHANNEL MEAN ELEV.
- 100 YR FLOOD ELEV.
- (600) --- EXISTING CONTOUR
- 600 --- PROPOSED CONTOUR
- GUARDRAIL
- /// DREDGE CHANNEL
- SIDEWALK, SEE LM SERIES FOR MATERIALS/FINISHES
- RIP RAP
- EMERGENT SHORELINE PLUG MIX
- DRY PRAIRIE SEED MIX
- RIPARIAN WETLAND SEED MIX
- MESIC PRAIRIE SEED MIX
- DRY SAVANNA SEED MIX
- MOWN TURF PATH/LANDING

PARTIAL GROUNDPLANE PLANTING PLAN
 SCALE = 1"=20'



Rev.	Description	Appr.	Date
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METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

CONTRACT 14-253-5FR
 FLOOD CONTROL PROJECT ON
 MIDLOTHIAN CREEK IN ROBBINS, ILLINOIS (RE-BID)
 LITTLE CALUMET RIVER WATERSHED
PARTIAL PLANTING PLAN

Designed by: LH
 Checked by: LH
 Drawn by: LH
 Reviewed by: LH
 Date: MAY 2024
 Scale: AS SHOWN

LIVING HABITATS

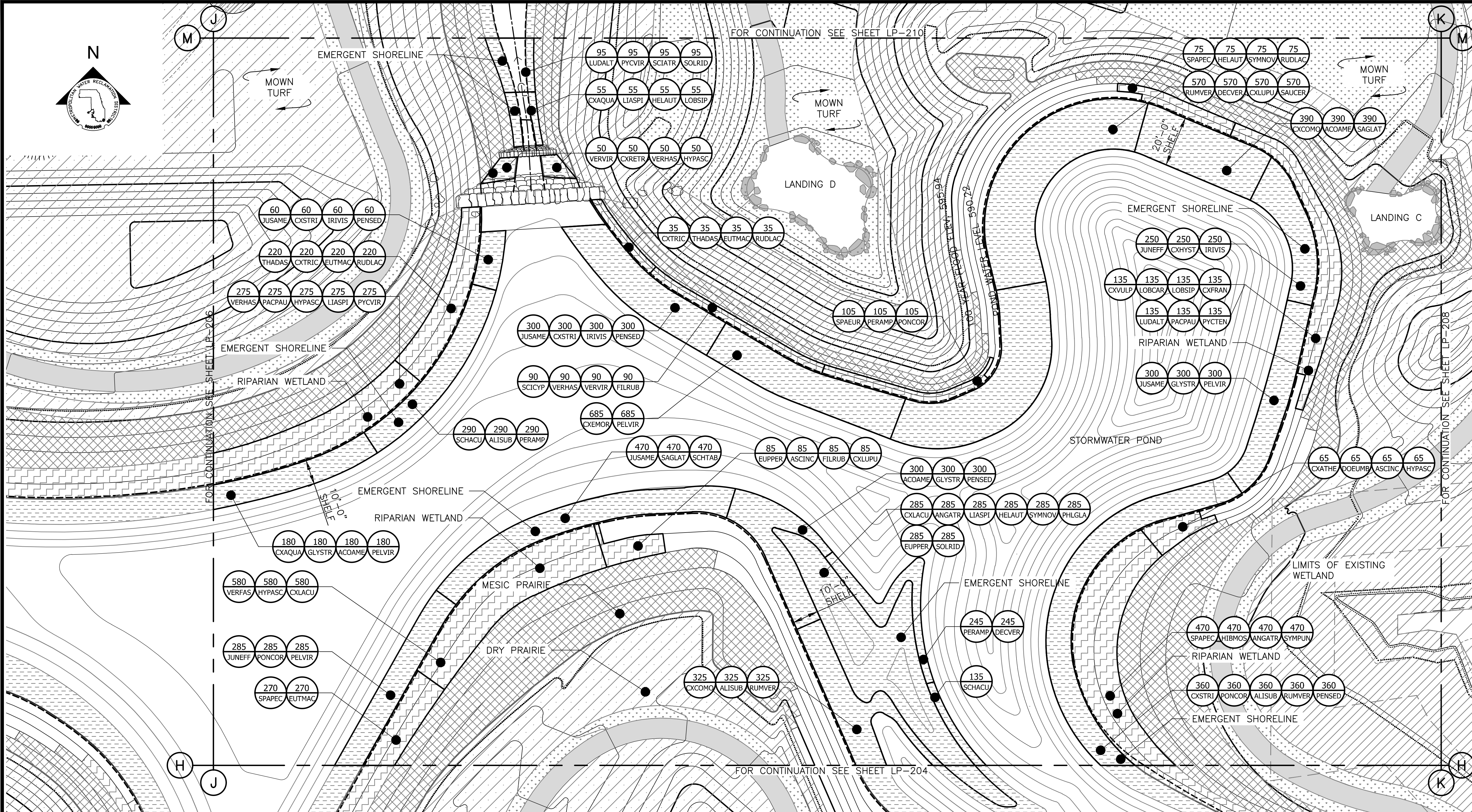
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 GREEN & ASSOCIATES, INC.

Sheet Number:
LP-207

Page Number: 161

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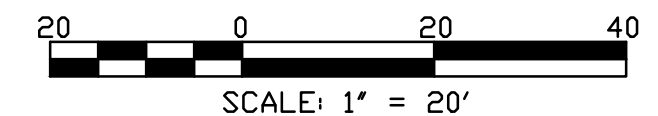
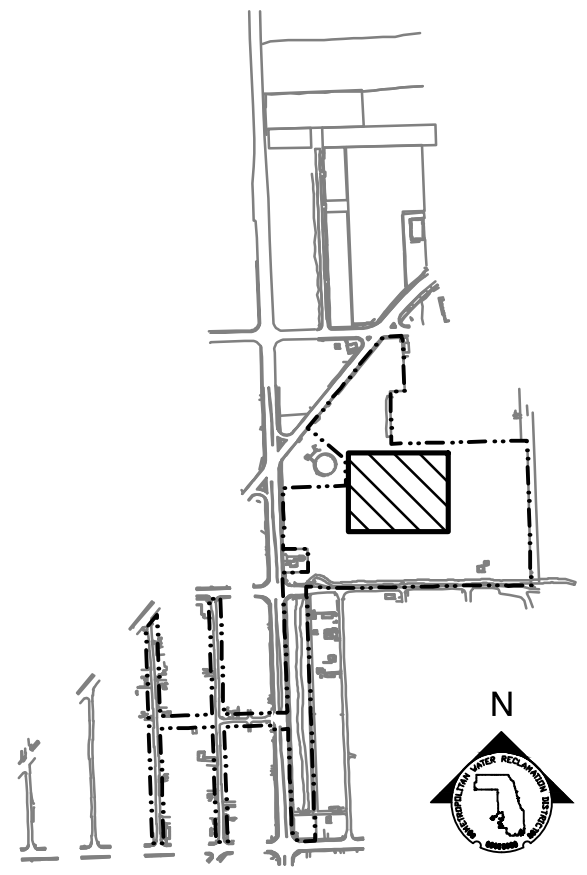
PLANTING NOTES:

1. REFERENCE NOTES ON LANDSCAPE DRAWING LP-101
2. FOR PLANTING SCHEDULES, REFERENCE DRAWINGS LP-222 & LP-223.

LEGEND:

- L.O.W. --- LIMIT OF WORK
- W.O.U.S. --- WATERS OF UNITED STATES
- CHANNEL MEAN ELEV.
- 100 YR FLOOD ELEV.
- (600) --- EXISTING CONTOUR
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- DRY SAVANNA SEED MIX
- MOWN TURF PATH/LANDING

PARTIAL GROUNDPLANE PLANTING PLAN
 SCALE = 1"=20'



Rev.	Description	Appr.	Date
1	ISSUE FOR CONSTRUCTION	LH	08/2024

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

Designed by: LH
 Checked by: LH
 Drawn by: LH
 Date: MAY 2024

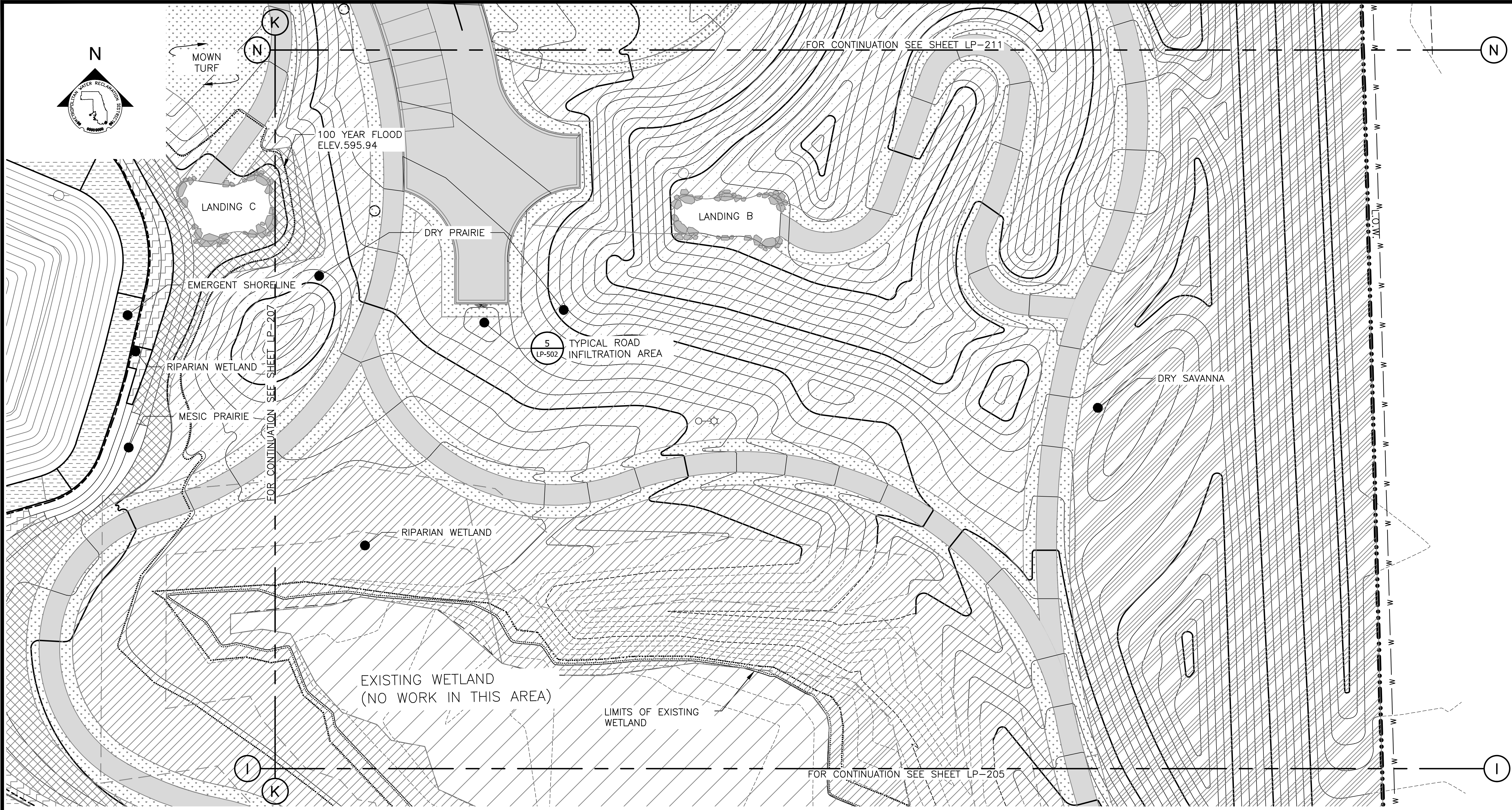
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LIVING HABITATS

CONTRACT 14-253-5FR
 FLOOD CONTROL PROJECT ON
 MIDLOTHIAN CREEK IN ROBBINS, ILLINOIS (RE-BID)
 LITTLE CALUMET RIVER WATERSHED
PARTIAL PLANTING PLAN

Sheet Number:
LP-208
 Page Number: 162



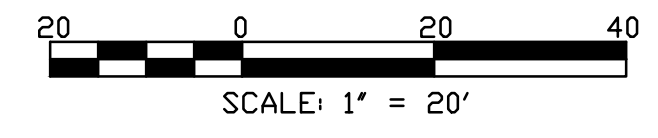
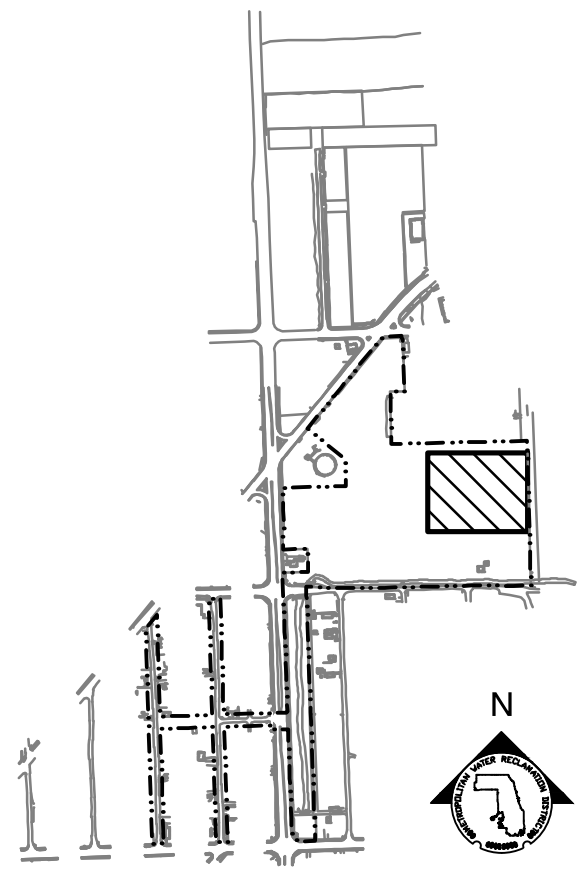
PLANTING NOTES:

1. REFERENCE NOTES ON LANDSCAPE DRAWING LP-101
2. FOR PLANTING SCHEDULES, REFERENCE DRAWINGS LP-222 & LP-223.

LEGEND:

- L.O.W. LIMIT OF WORK
- WOUS WATERS OF UNITED STATES
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- DRY PRAIRIE SEED MIX
- RIPARIAN WETLAND SEED MIX
- MESIC PRAIRIE SEED MIX
- DRY SAVANNA SEED MIX
- MOWN TURF PATH/LANDING

PARTIAL GROUNDPLANE PLANTING PLAN
 SCALE = 1"=20'



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METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

CONTRACT 14-253-5FR
 FLOOD CONTROL PROJECT ON
 MIDLOTHIAN CREEK IN ROBBINS, ILLINOIS (RE-BID)
 LITTLE CALUMET RIVER WATERSHED
PARTIAL PLANTING PLAN

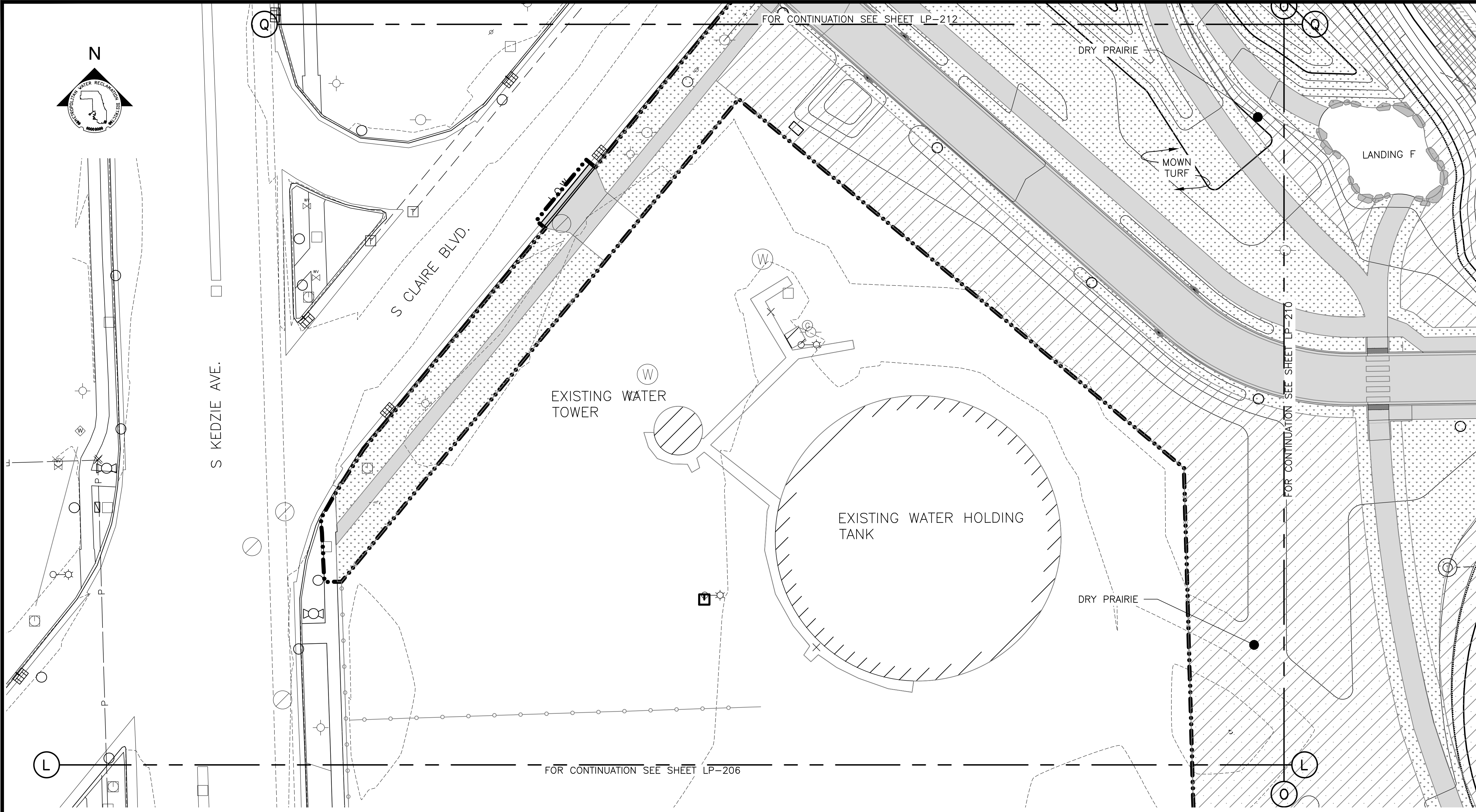
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 Reviewed by: LH
 Date: MAY 2024
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Sheet Number:
LP-209
 Page Number: 163

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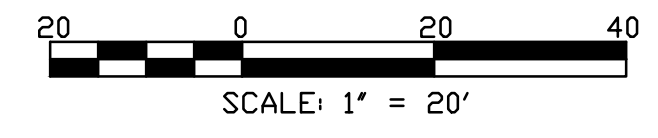
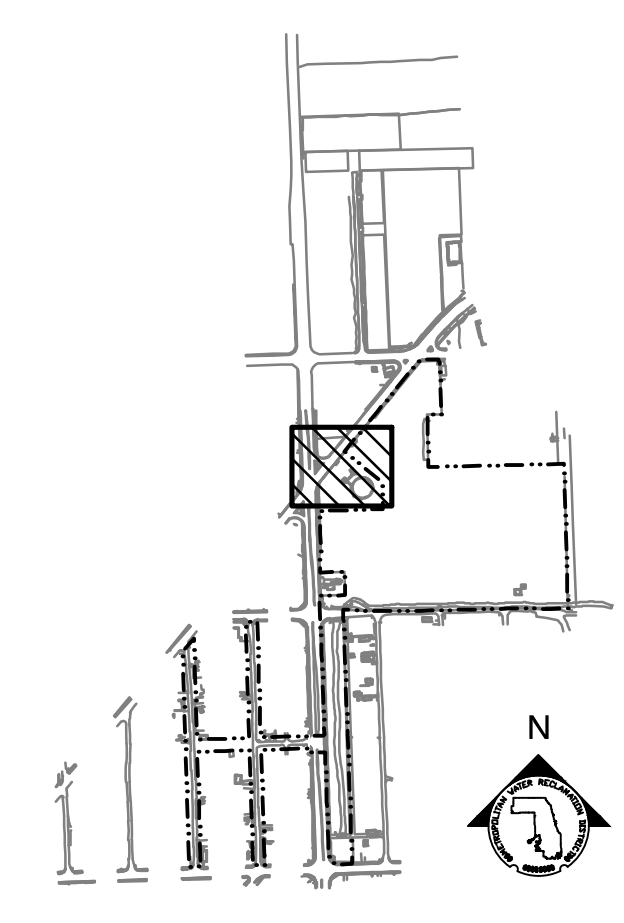
PLANTING NOTES:

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PARTIAL GROUNDPLANE PLANTING PLAN
 SCALE = 1"=20'



Rev.	Description	Appr.	Date
01	ISSUE FOR CONSTRUCTION	LH	08/2024

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

Contract 14-253-5FR
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 LITTLE CALUMET RIVER WATERSHED
PARTIAL PLANTING PLAN

Designed by: LH
 Drawn by: LH
 Date: MAY 2024

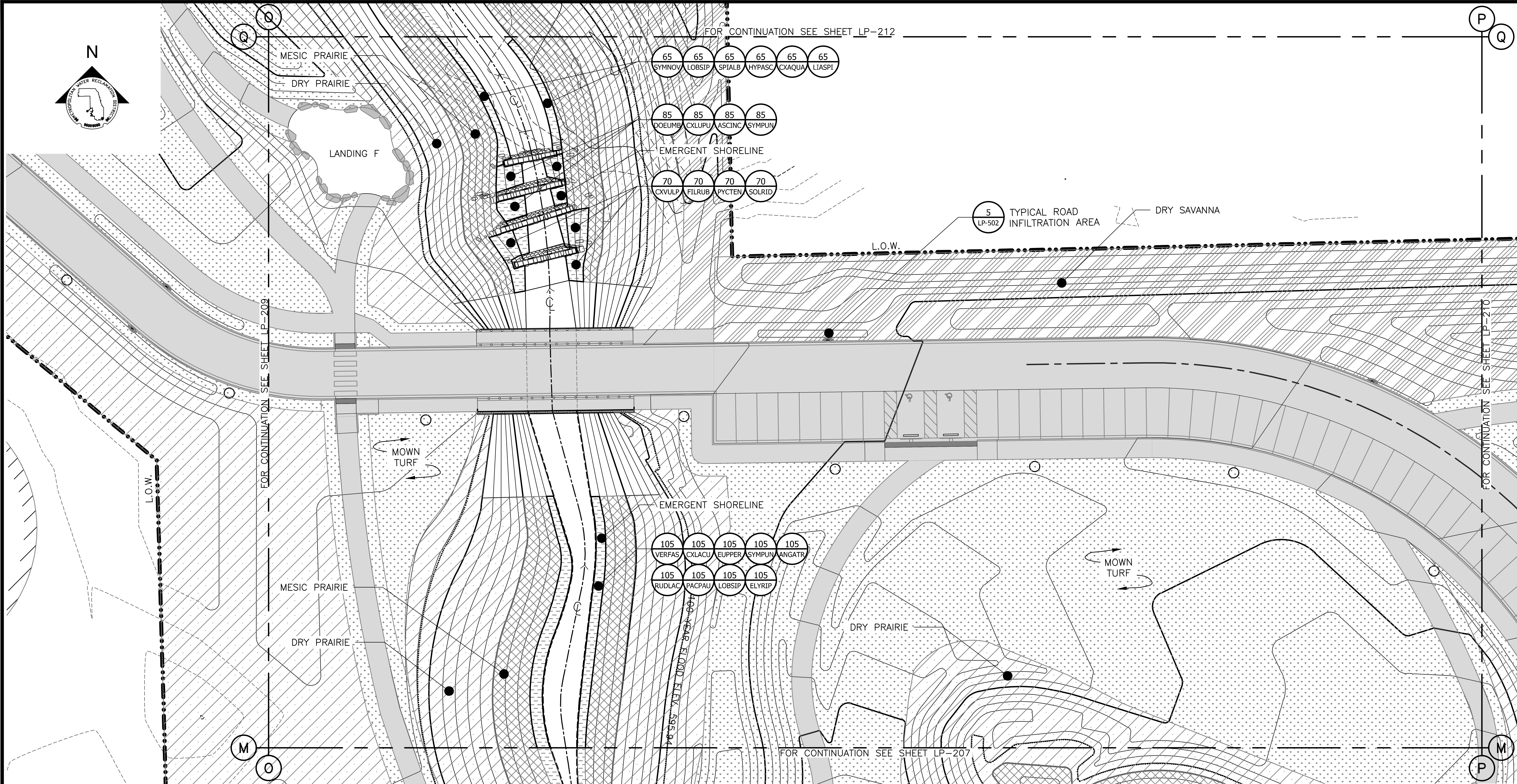
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LIVING HABITATS

CONTRACT 14-253-5FR
 FLOOD CONTROL PROJECT ON
 MIDLOTHIAN CREEK IN ROBBINS, ILLINOIS (RE-BID)
 LITTLE CALUMET RIVER WATERSHED
PARTIAL PLANTING PLAN

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PLANTING NOTES:

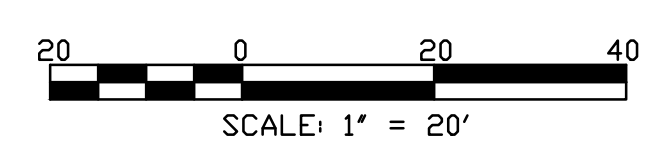
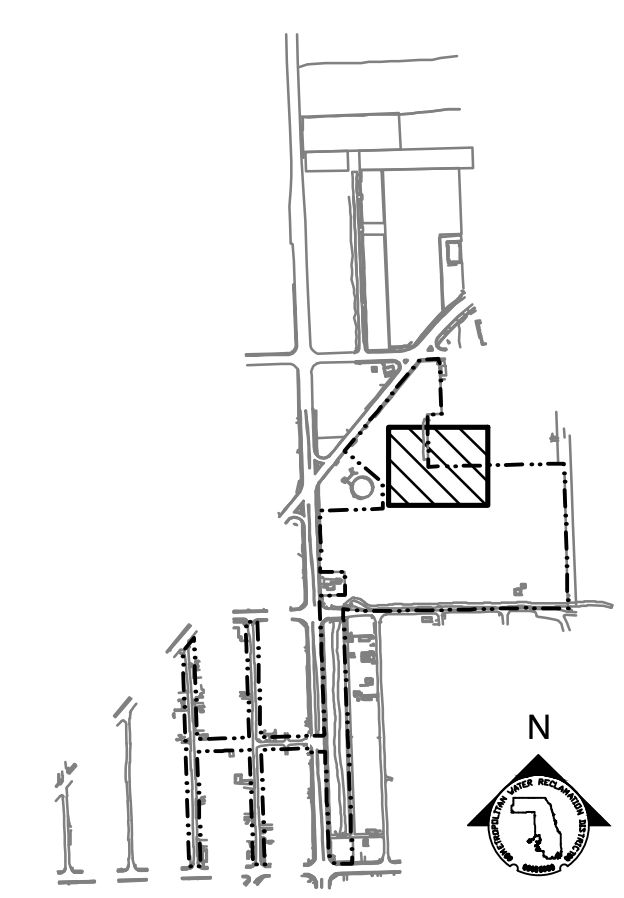
1. REFERENCE NOTES ON LANDSCAPE DRAWING LP-101
2. FOR PLANTING SCHEDULES, REFERENCE DRAWINGS LP-222 & LP-223.

LEGEND:

- L.O.W. LIMIT OF WORK
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- EXPOSED BEDROCK
- EMERGENT SHORELINE PLUG MIX
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- RIPARIAN WETLAND SEED MIX
- MESIC PRAIRIE SEED MIX
- DRY SAVANNA SEED MIX
- MOWN TURF PATH/LANDING

PARTIAL GROUNDPLANE PLANTING PLAN
 SCALE = 1"=20'

NOTE: SEE UTILITY DRAWINGS FOR CULVERT AND STORM SEWER INFORMATION



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METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

CONTRACT 14-253-5FR
 FLOOD CONTROL PROJECT ON
 MIDLOTHIAN CREEK IN ROBBINS, ILLINOIS (RE-BID)
 LITTLE CALUMET RIVER WATERSHED
PARTIAL PLANTING PLAN

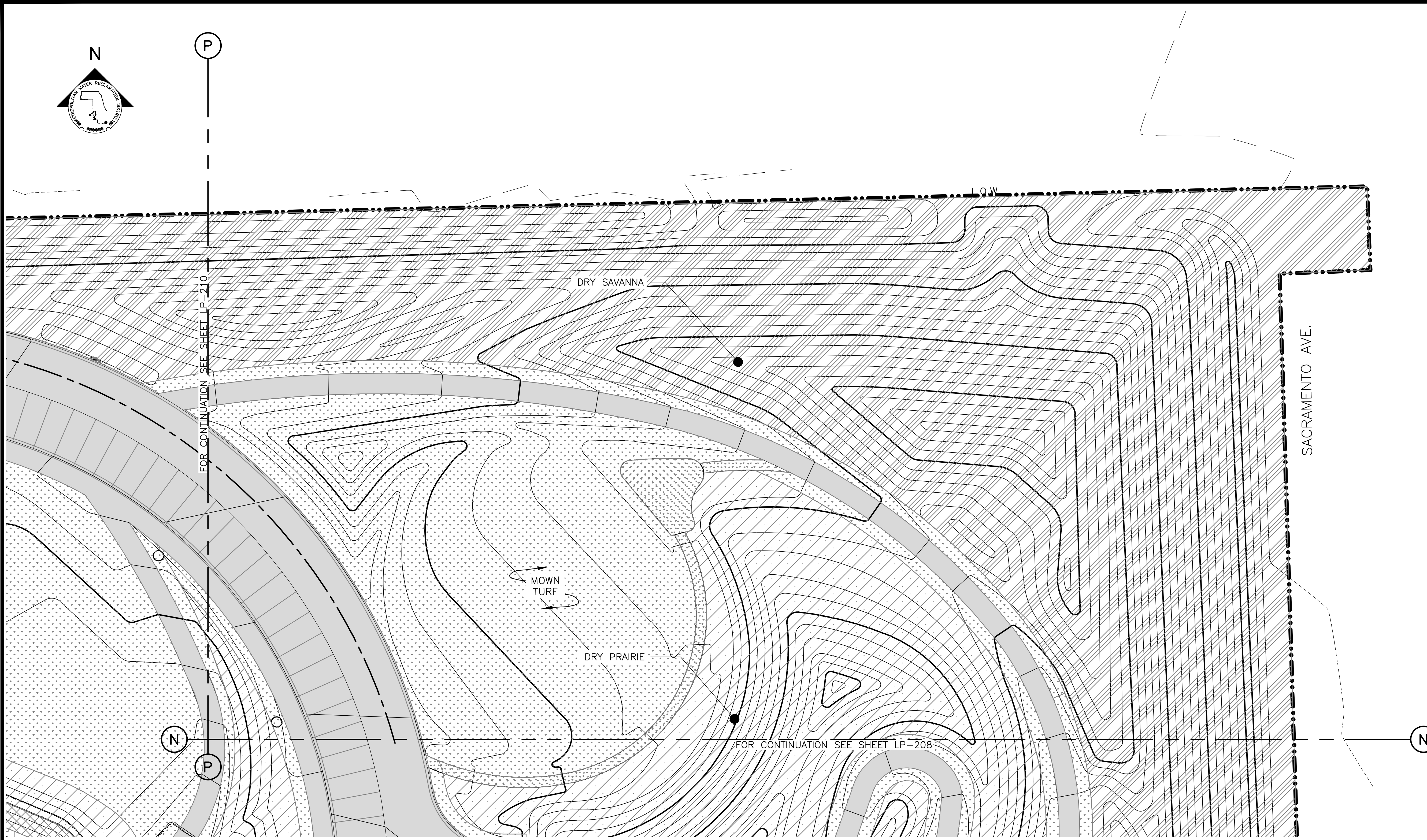
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CONTRACT 14-253-5FR
 FLOOD CONTROL PROJECT ON
 MIDLOTHIAN CREEK IN ROBBINS, ILLINOIS (RE-BID)
 LITTLE CALUMET RIVER WATERSHED
PARTIAL PLANTING PLAN

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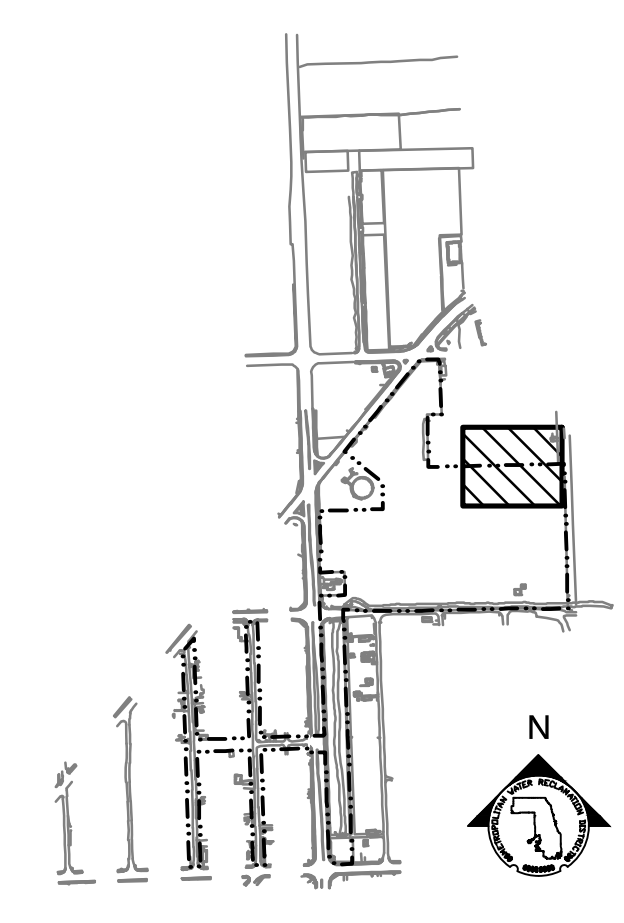
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2. FOR PLANTING SCHEDULES, REFERENCE DRAWINGS LP-222 & LP-223.

LEGEND:

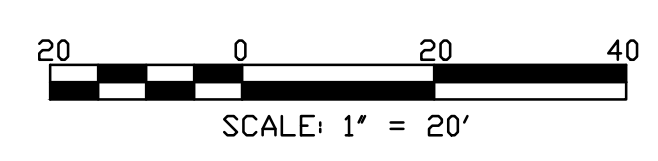
- L.O.W. LIMIT OF WORK
- W.O.U.S. WATERS OF UNITED STATES
- CHANNEL MEAN ELEV.
- 100 YR FLOOD ELEV.
- (600) EXISTING CONTOUR
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- RIPARIAN WETLAND SEED MIX
- MESIC PRAIRIE SEED MIX
- DRY SAVANNA SEED MIX
- MOWN TURF PATH/LANDING

PARTIAL GROUNDPLANE PLANTING PLAN

SCALE = 1"=20'



KEY MAP



Rev.	Description	Appr.	Date
	ISSUE FOR CONSTRUCTION	LH	08/2024

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

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 Reviewed by: LH
 Date: MAY 2024
 Scale: AS SHOWN

LIVING HABITATS

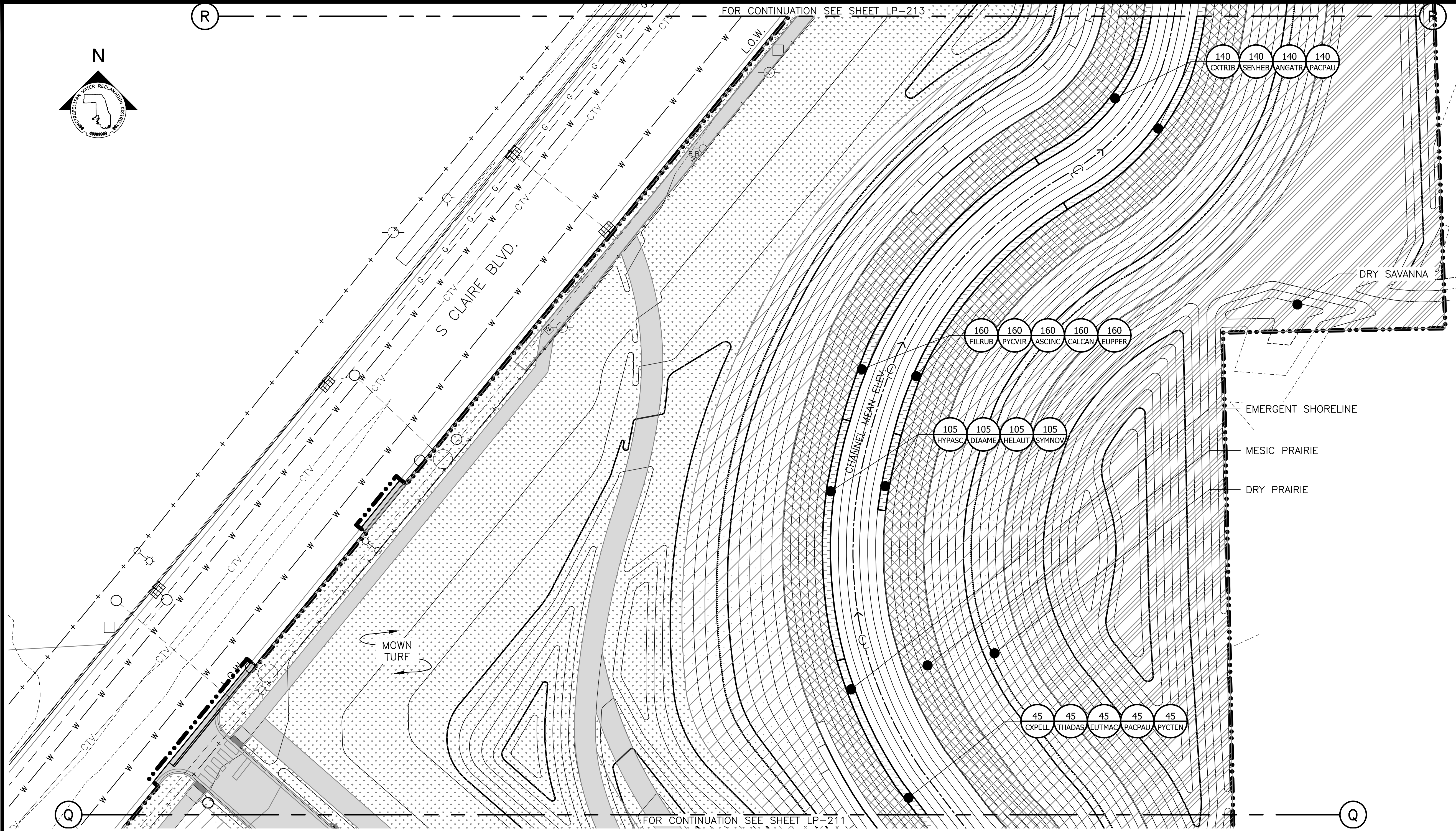
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CONTRACT 14-253-5FR
 FLOOD CONTROL PROJECT ON
 MIDLOTHIAN CREEK IN ROBBINS, ILLINOIS (RE-BID)
 LITTLE CALUMET RIVER WATERSHED
PARTIAL PLANTING PLAN

Sheet Number:
LP-212
 Page Number: 166

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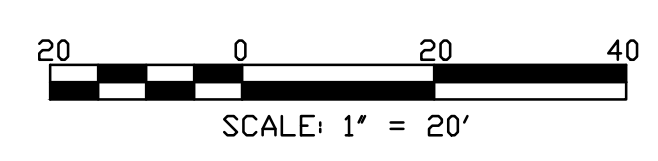
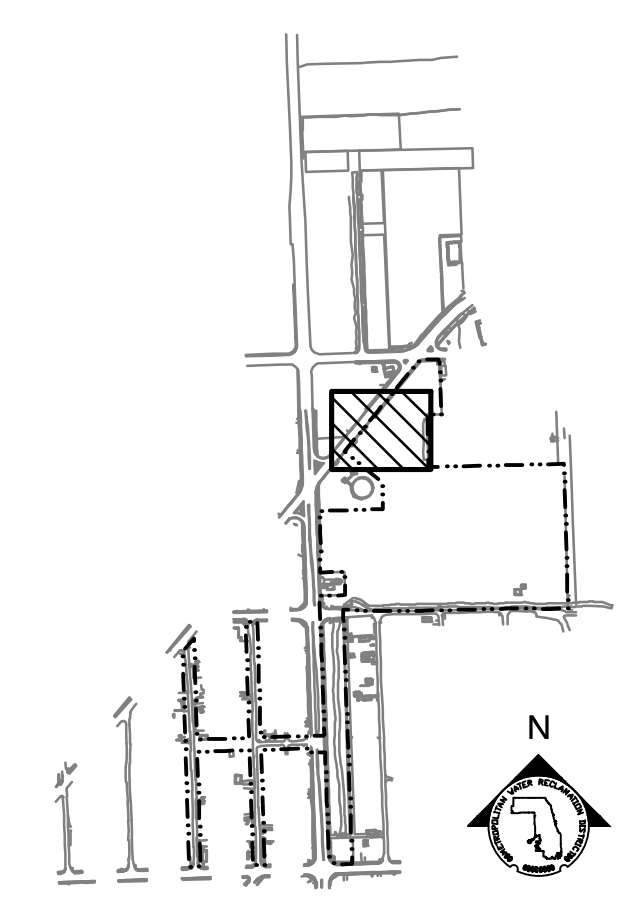
PLANTING NOTES:

1. REFERENCE NOTES ON LANDSCAPE DRAWING LP-101
2. FOR PLANTING SCHEDULES, REFERENCE DRAWINGS LP-222 & LP-223.

LEGEND:

- LIMIT OF WORK
- WOUS - WATERS OF UNITED STATES
- CHANNEL MEAN ELEV.
- 100 YR FLOOD ELEV.
- (600) EXISTING CONTOUR
- 600 PROPOSED CONTOUR
- GUARDRAIL
- DREDGE CHANNEL
- SIDEWALK, SEE LM SERIES FOR MATERIALS/FINISHES
- RIP RAP
- EXPOSED BEDROCK
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- DRY SAVANNA SEED MIX
- MOWN TURF PATH/LANDING

PARTIAL GROUNDPLANE PLANTING PLAN
 SCALE = 1"=20'



Rev.	Description	Appr.	Date
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METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

CONTRACT 14-253-5FR
 FLOOD CONTROL PROJECT ON
 MIDLOTHIAN CREEK IN ROBBINS, ILLINOIS (RE-BID)
 LITTLE CALUMET RIVER WATERSHED
PARTIAL PLANTING PLAN

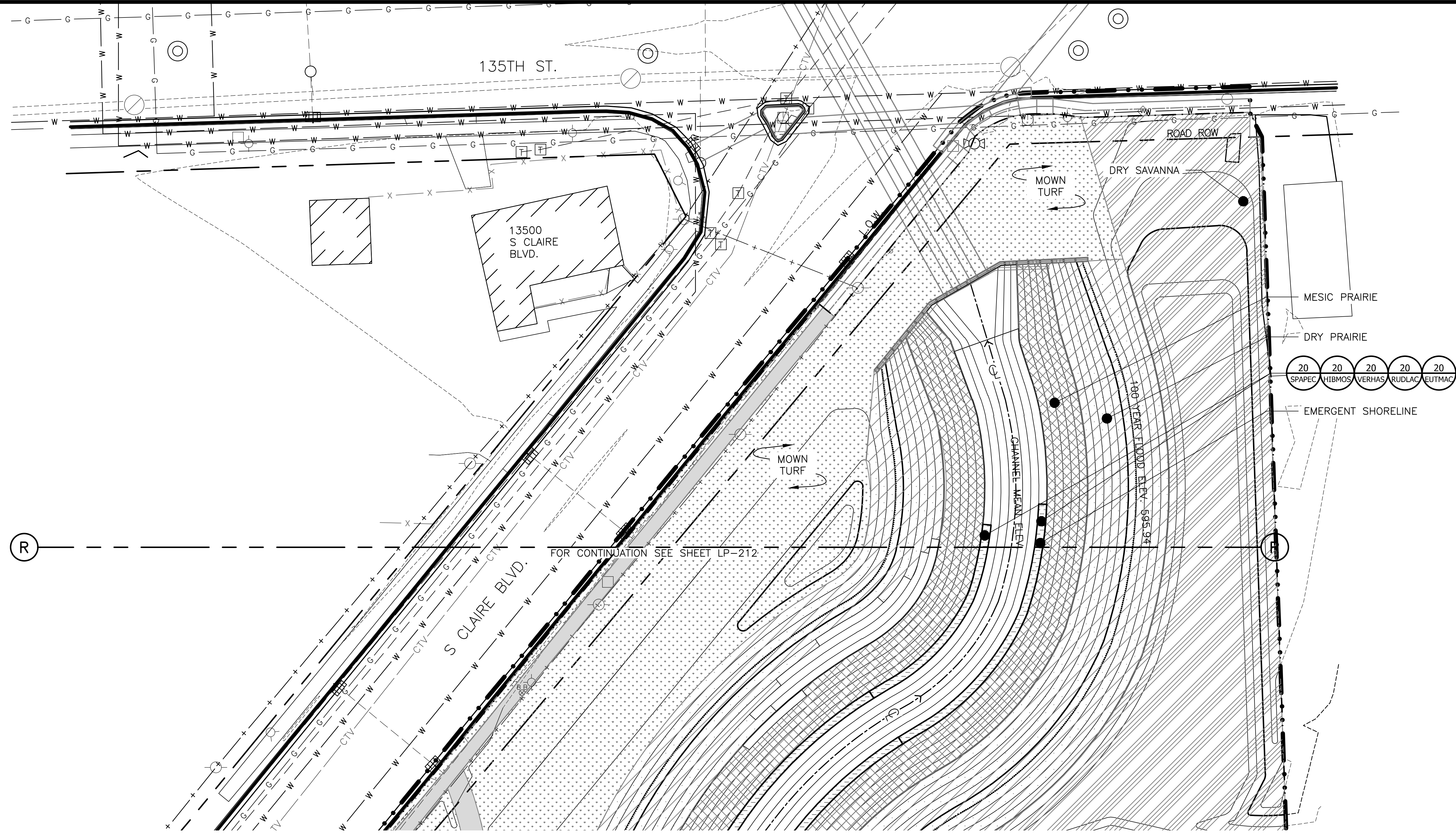
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 Reviewed by: LH
 Date: MAY 2024
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Sheet Number:
LP-213
 Page Number: 167

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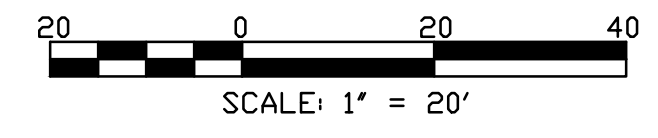
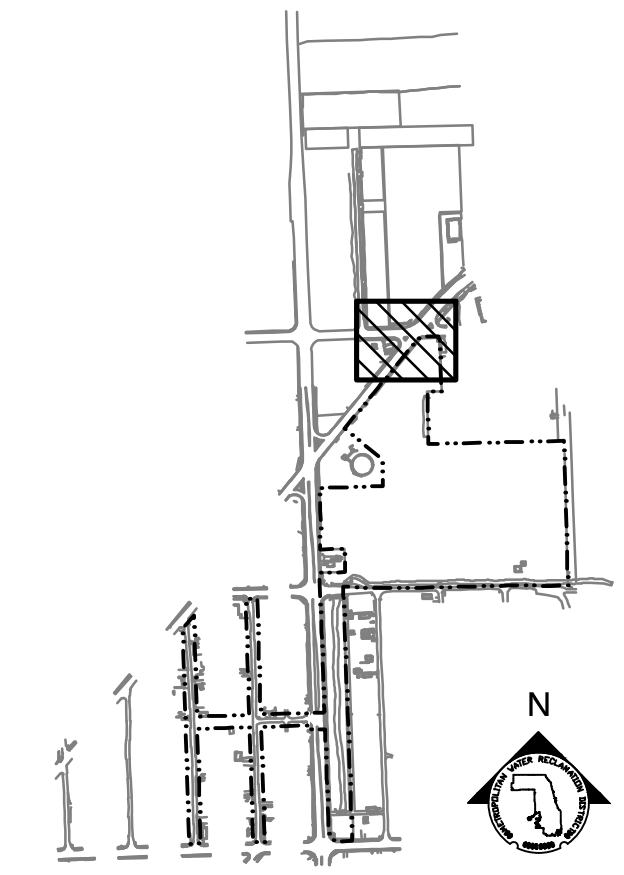
PARTIAL GROUNDPLANE PLANTING PLAN
SCALE = 1"=20'

PLANTING NOTES:

1. REFERENCE NOTES ON LANDSCAPE DRAWING LP-101
2. FOR PLANTING SCHEDULES, REFERENCE DRAWINGS LP-222 & LP-223.

LEGEND:

- L.O.W. --- LIMIT OF WORK
- WOUS --- WATERS OF UNITED STATES
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- DRY SAVANNA SEED MIX
- MOWN TURF PATH/LANDING



METROPOLITAN WATER RECLAMATION DISTRICT
OF GREATER CHICAGO

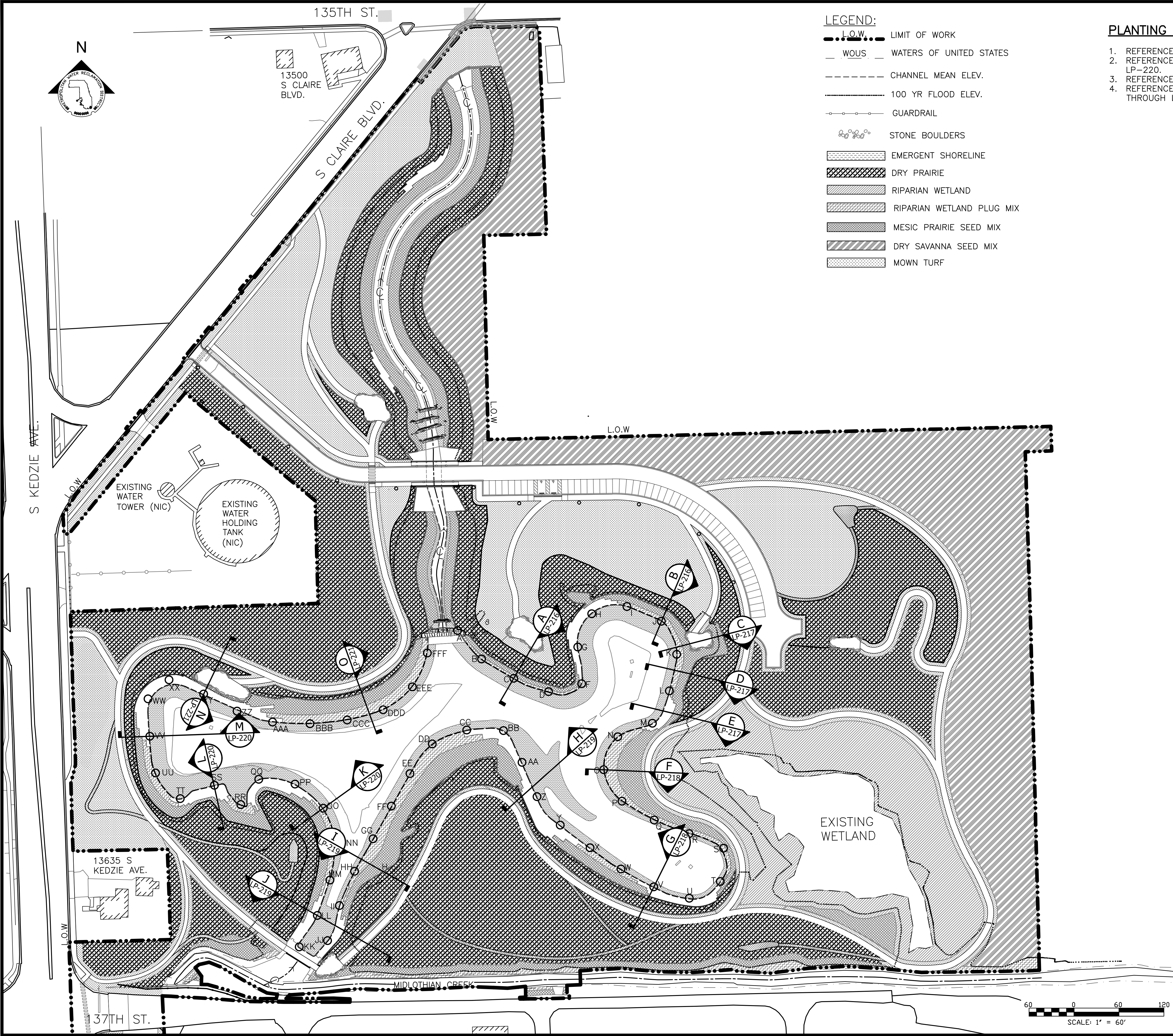
CONTRACT 14-253-5FR
FLOOD CONTROL PROJECT ON
MIDLOTHIAN CREEK IN ROBBINS, ILLINOIS (RE-BID)
LITTLE CALUMET RIVER WATERSHED
PARTIAL PLANTING PLAN

Sheet Number:
LP-214
Page Number: 168

Rev.	Description	Appr.	Date
1	ISSUE FOR CONSTRUCTION	LH	08/2024

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LH	LH
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LH	LH
Date:	Scale:
MAY 2024	AS SHOWN

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- LEGEND:**
- L.O.W. LIMIT OF WORK
 - W.O.U.S. WATERS OF UNITED STATES
 - CHANNEL MEAN ELEV.
 - 100 YR FLOOD ELEV.
 - GUARDRAIL
 - STONE BOULDERS
 - EMERGENT SHORELINE
 - DRY PRAIRIE
 - RIPARIAN WETLAND
 - RIPARIAN WETLAND PLUG MIX
 - MESIC PRAIRIE SEED MIX
 - DRY SAVANNA SEED MIX
 - MOWN TURF

- PLANTING NOTES:**
1. REFERENCE NOTES ON PLANTING DRAWING LP-101.
 2. REFERENCE SHORELINE CROSS SECTIONS ON LP-215 THROUGH LP-220.
 3. REFERENCE PLANTING SCHEDULES ON LP-222 AND LP-223.
 4. REFERENCE SHORELINE PLUG ENLARGEMENT PLANS ON LP-203 THROUGH LP-213.

METROPOLITAN WATER RECLAMATION DISTRICT
 OF GREATER CHICAGO

Designed by: LH	Checked by: LH
Drawn by: LH	Reviewed by: LH
Date: MAY 2024	Scale: AS SHOWN

CONTRACT 14-253-5FR
 FLOOD CONTROL PROJECT ON
 MIDLOTHIAN CREEK IN ROBBINS, ILLINOIS (RE-BID)
 LITTLE CALUMET RIVER WATERSHED
 SHORELINE SECTION PLAN

Sheet Number:
LP-215
 Page Number: 169

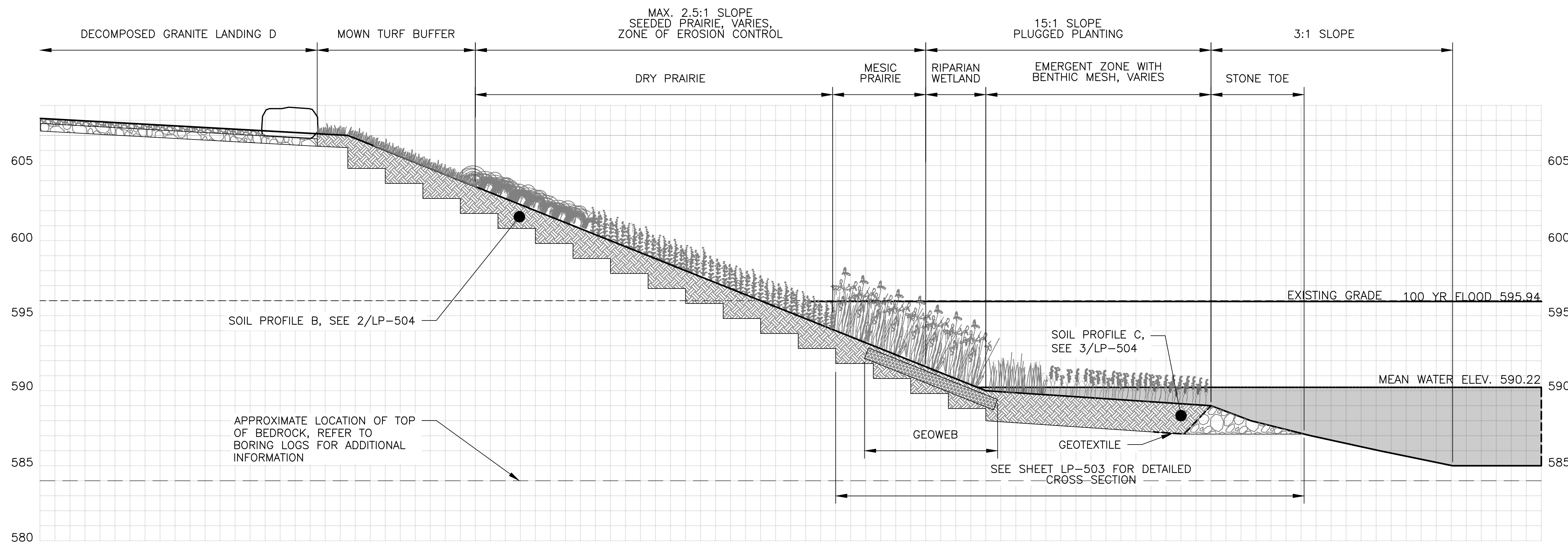
Donohue
 Accurate
 ENGINEERS & ARCHITECTS, INC.
 CONSULTING ENGINEERS

LIVING HABITATS

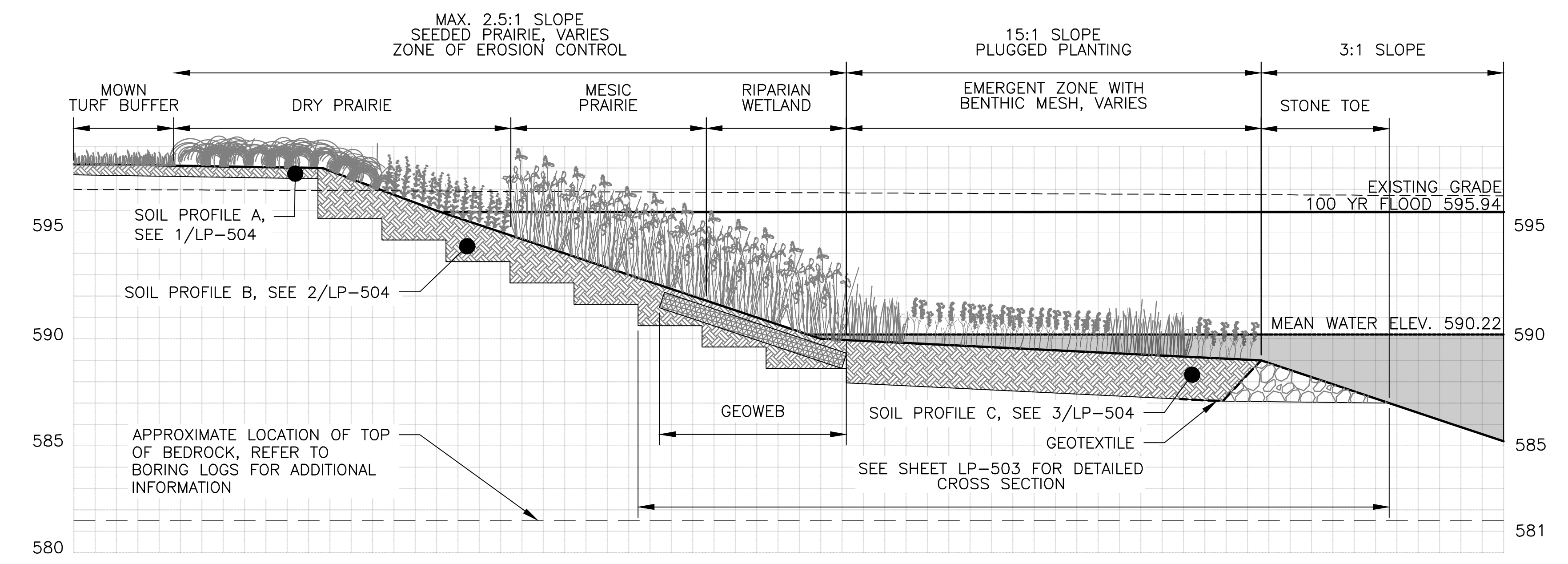
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	ISSUE FOR CONSTRUCTION	LH	08/2024

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A SECTION A (APPROXIMATE CONDITIONS REACH A TO H)
 SCALE: 1" = 4'-0"



B SECTION B (APPROXIMATE CONDITIONS REACH H TO MIDPOINT J-K)
 SCALE: 1" = 4'-0"

LEGEND:
 - - - - - CHANNEL MEAN ELEV.
 - - - - - 100 YR FLOOD ELEV.

PLANTING NOTES:
 1. REFERENCE NOTES ON PLANTING DRAWING LP-101.

Rev.	Description	Appr.	Date
1	ISSUE FOR CONSTRUCTION	LH	09/2024

METROPOLITAN WATER RECLAMATION DISTRICT
 OF GREATER CHICAGO

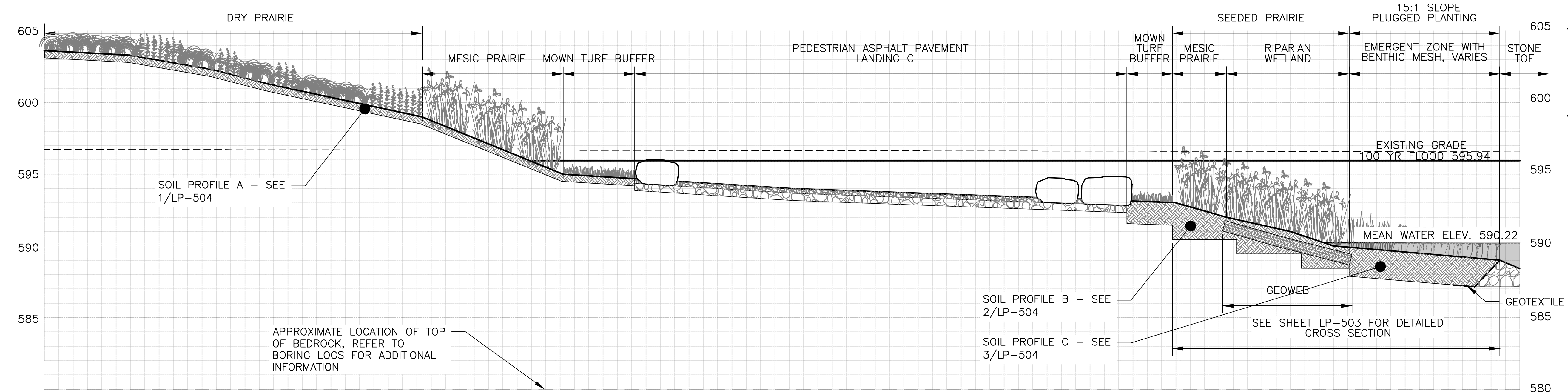
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 Reviewed by: LH
 Date: MAY 2024
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 Accurate
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 CONSULTING ENGINEERS

LIVING HABITATS

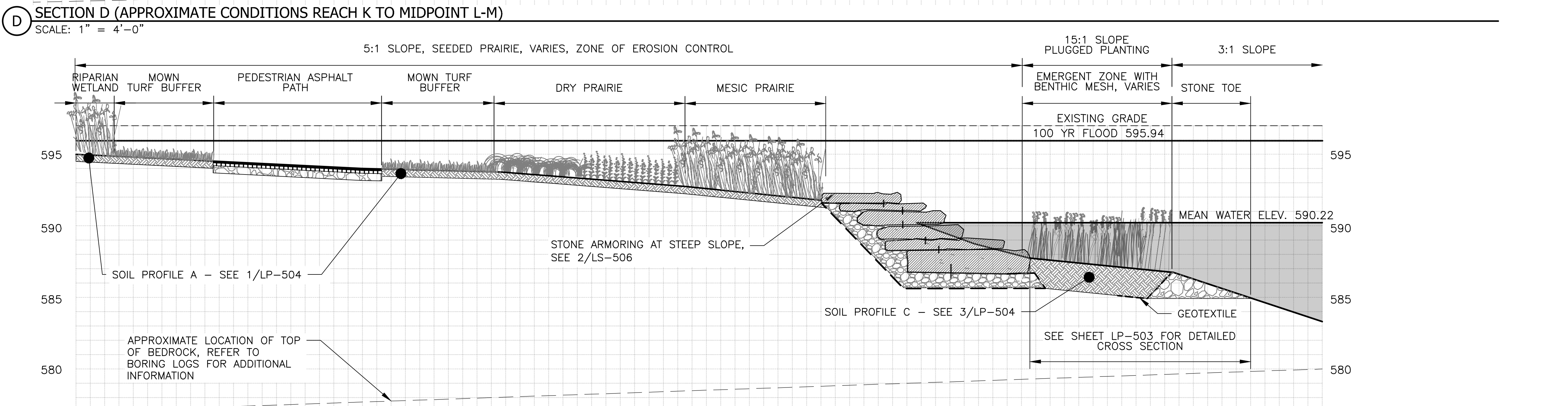
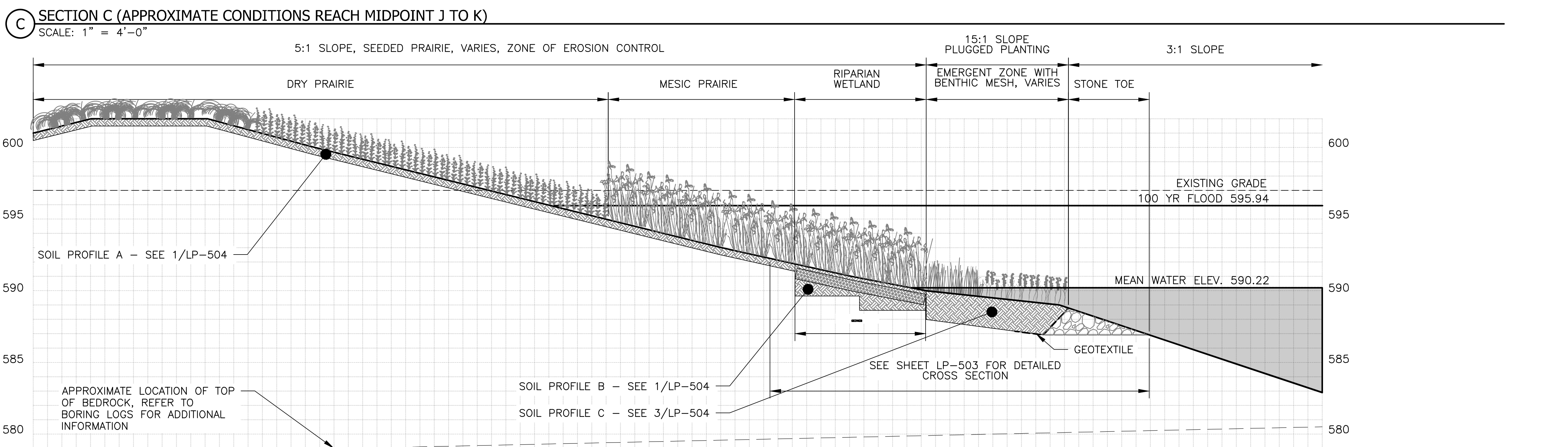
CONTRACT 14-253-5FR
 FLOOD CONTROL PROJECT ON
 MIDLOTHIAN CREEK IN ROBBINS, ILLINOIS (RE-BID)
 LITTLE CALUMET RIVER WATERSHED
 SHORELINE PLANTING CROSS SECTIONS

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LEGEND:
 - - - - - CHANNEL MEAN ELEV.
 - - - - - 100 YR FLOOD ELEV.

PLANTING NOTES:
 1. REFERENCE NOTES ON PLANTING DRAWING LP-101.



Rev.	Description	Appr.	Date
1	ISSUE FOR CONSTRUCTION	LH	08/2024

METROPOLITAN WATER RECLAMATION DISTRICT
 OF GREATER CHICAGO

CONTRACT 14-253-5FR
 FLOOD CONTROL PROJECT ON
 MIDLOTHIAN CREEK IN ROBBINS, ILLINOIS (RE-BID)
 LITTLE CALUMET RIVER WATERSHED
 SHORELINE PLANTING CROSS SECTIONS

Designed by: LH
 Checked by: LH
 Drawn by: LH
 Reviewed by: LH
 Date: MAY 2024
 Scale: AS SHOWN

DONOHUE
 CONSULTING ENGINEERS

ZIM
 CONSULTING ENGINEERS

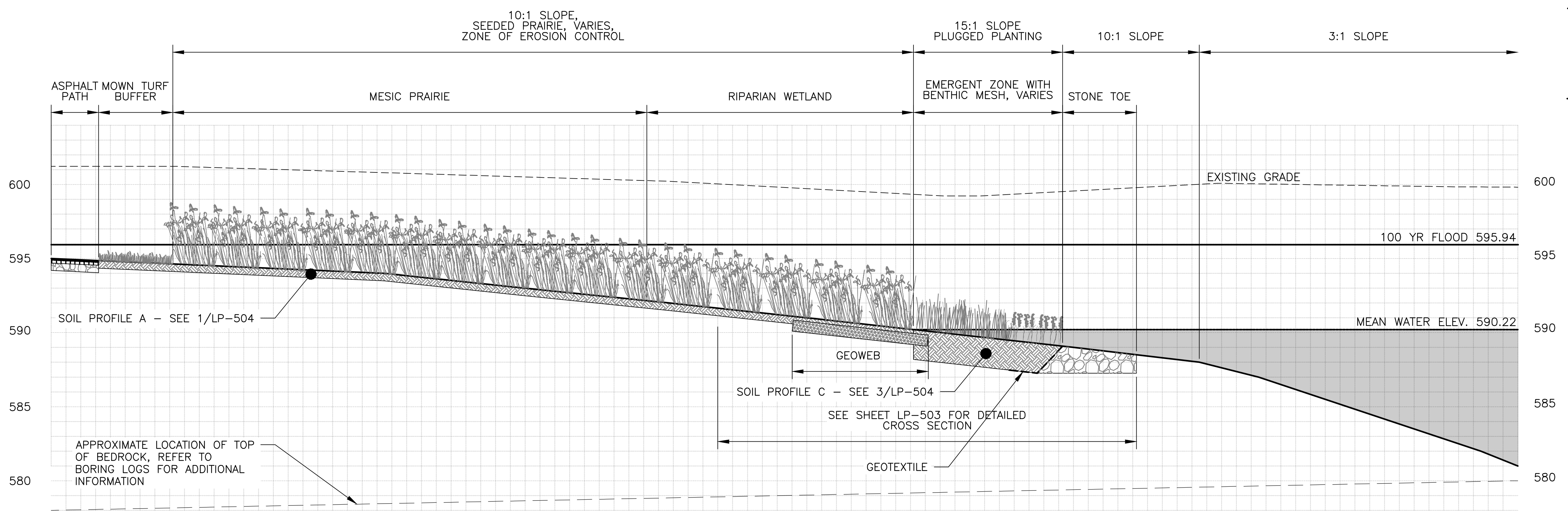
ACCURATE
 CONSULTING ENGINEERS

LIVING HABITATS

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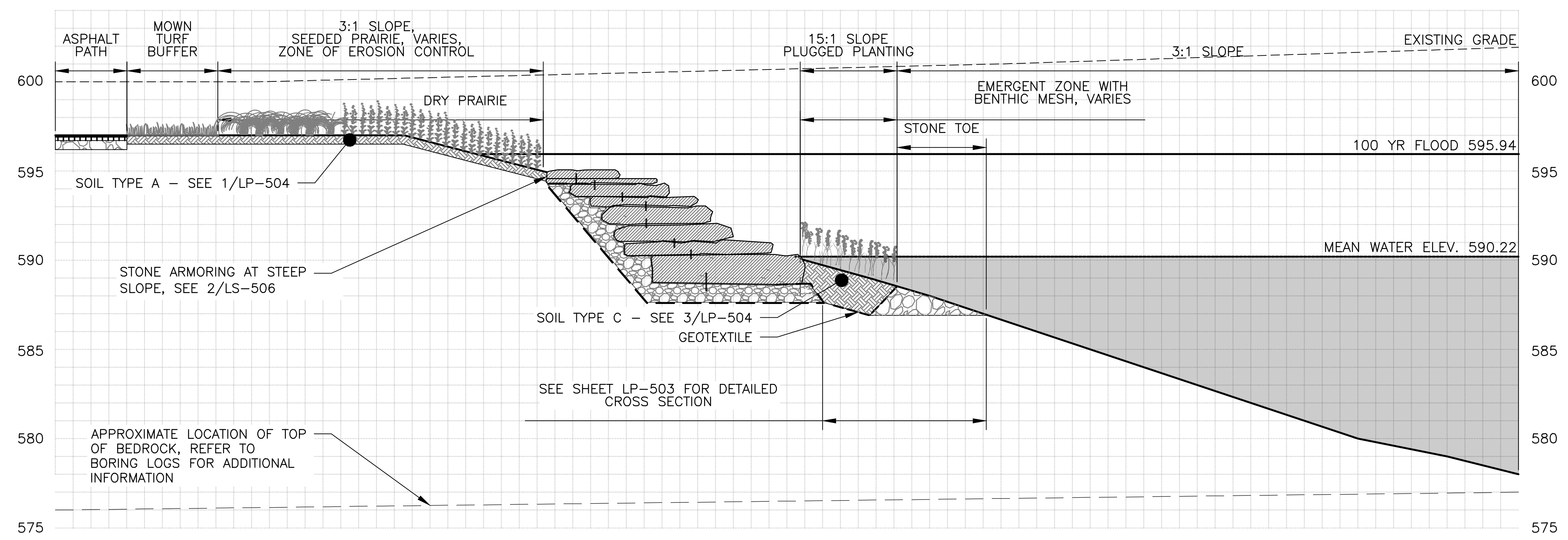
LEGEND:

- CHANNEL MEAN ELEV.
- 100 YR FLOOD ELEV.

PLANTING NOTES:

- REFERENCE NOTES ON PLANTING DRAWING LP-101.

F SECTION F (APPROXIMATE CONDITIONS REACH M TO Q)
SCALE: 1" = 4'-0"



G SECTION G (APPROXIMATE CONDITIONS REACH Q TO X)
SCALE: 1" = 4'-0"

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METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

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FLOOD CONTROL PROJECT ON
MIDLOTHIAN CREEK IN ROBBINS, ILLINOIS (RE-BID)
LITTLE CALUMET RIVER WATERSHED
SHORELINE PLANTING CROSS SECTIONS

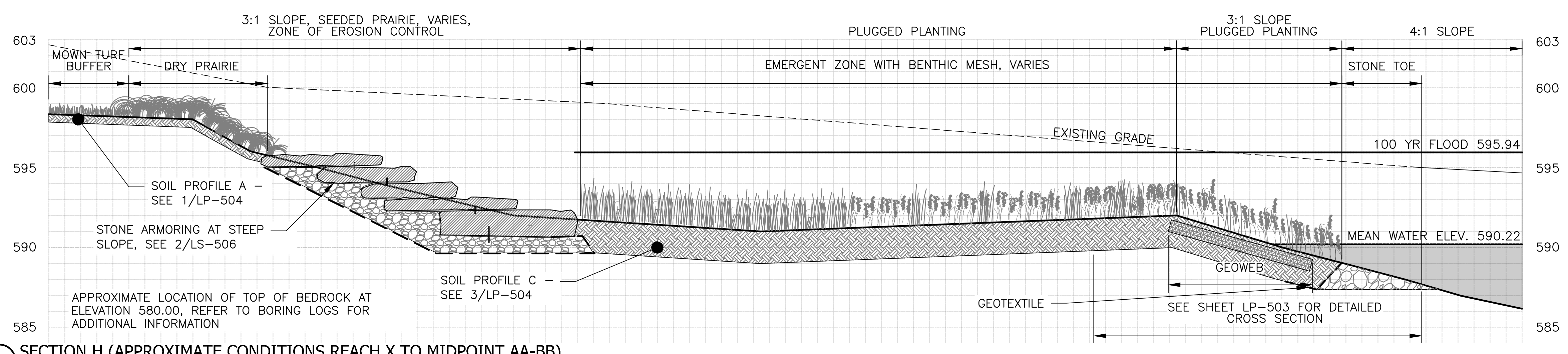
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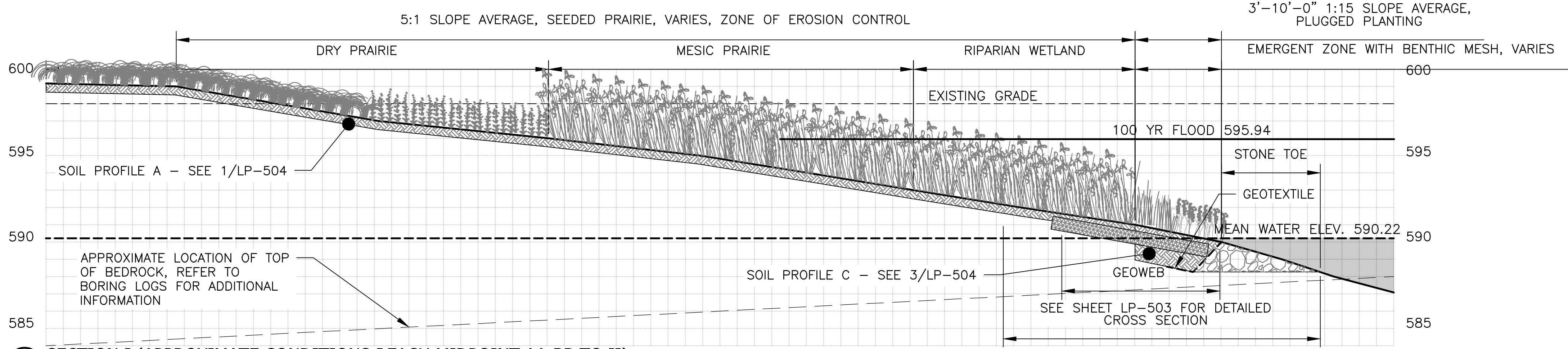
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CONSULTING ENGINEERS

LIVING HABITATS

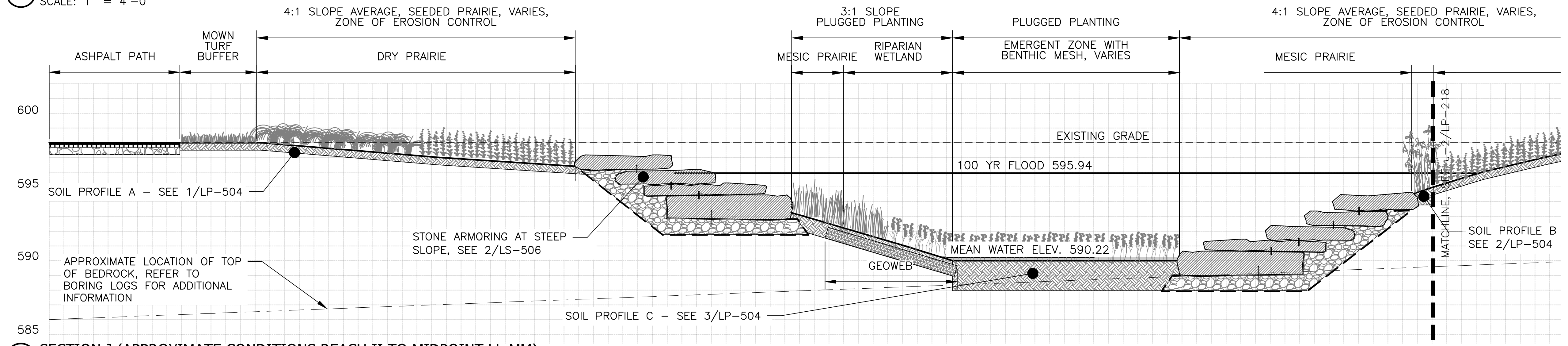
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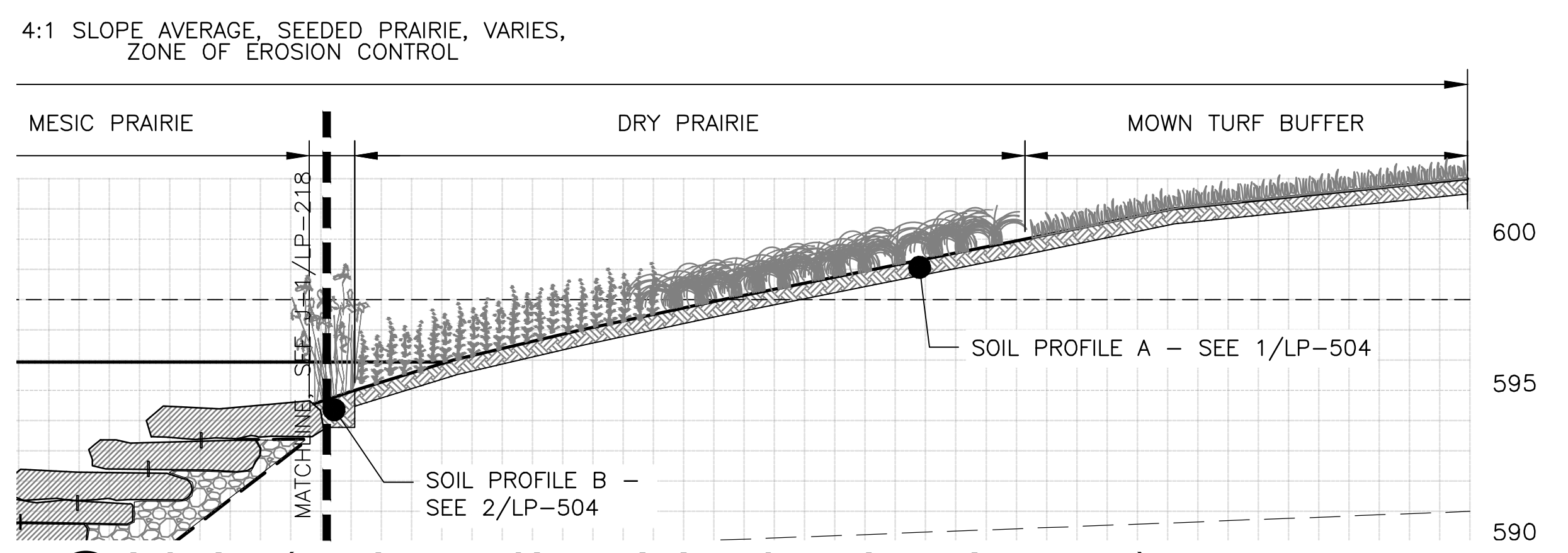
H SECTION H (APPROXIMATE CONDITIONS REACH X TO MIDPOINT AA-BB)
 SCALE: 1" = 4'-0"



I SECTION I (APPROXIMATE CONDITIONS REACH MIDPOINT AA-BB TO II)
 SCALE: 1" = 4'-0"



J-1 SECTION J (APPROXIMATE CONDITIONS REACH II TO MIDPOINT LL-MM)
 SCALE: 1" = 4'-0"



J-2 SECTION J (APPROXIMATE CONDITIONS REACH II TO MIDPOINT LL-MM)
 SCALE: 1" = 4'-0"

LEGEND:
 - - - - - CHANNEL MEAN ELEV.
 - - - - - 100 YR FLOOD ELEV.

PLANTING NOTES:
 1. REFERENCE NOTES ON PLANTING DRAWING LP-101.

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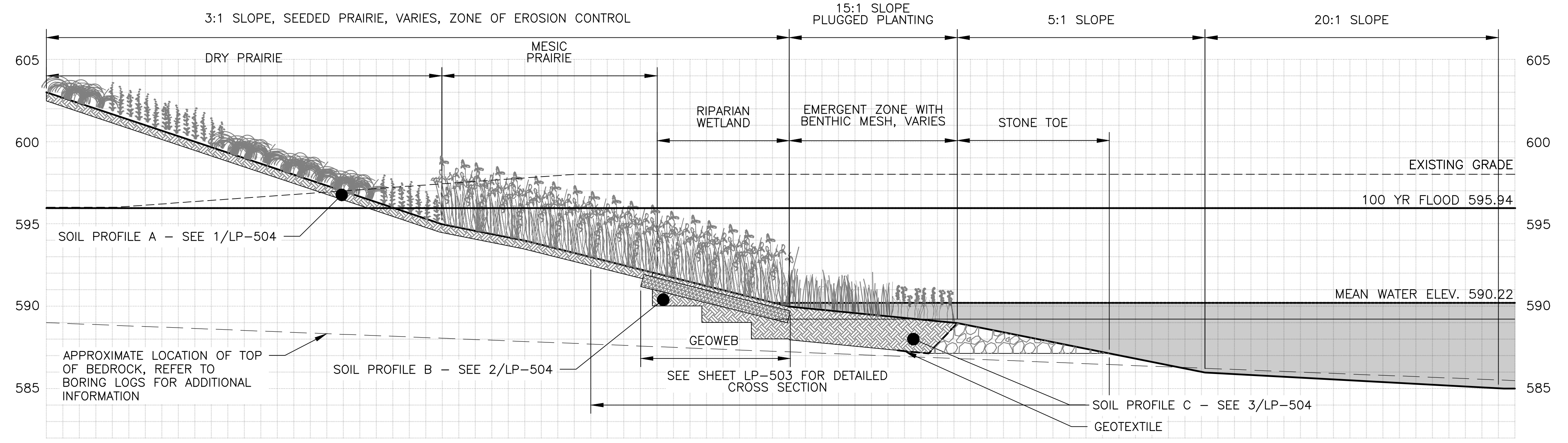
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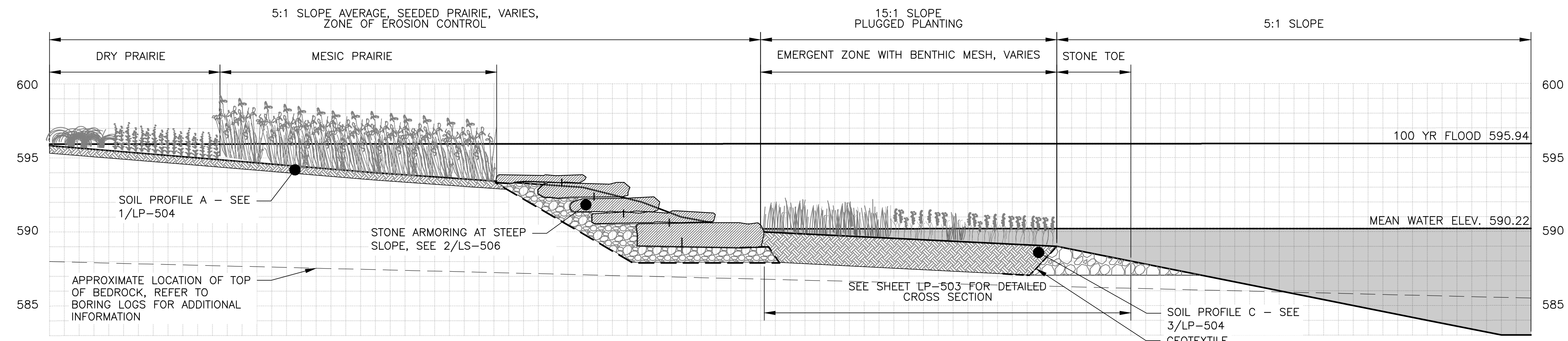
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LP-219

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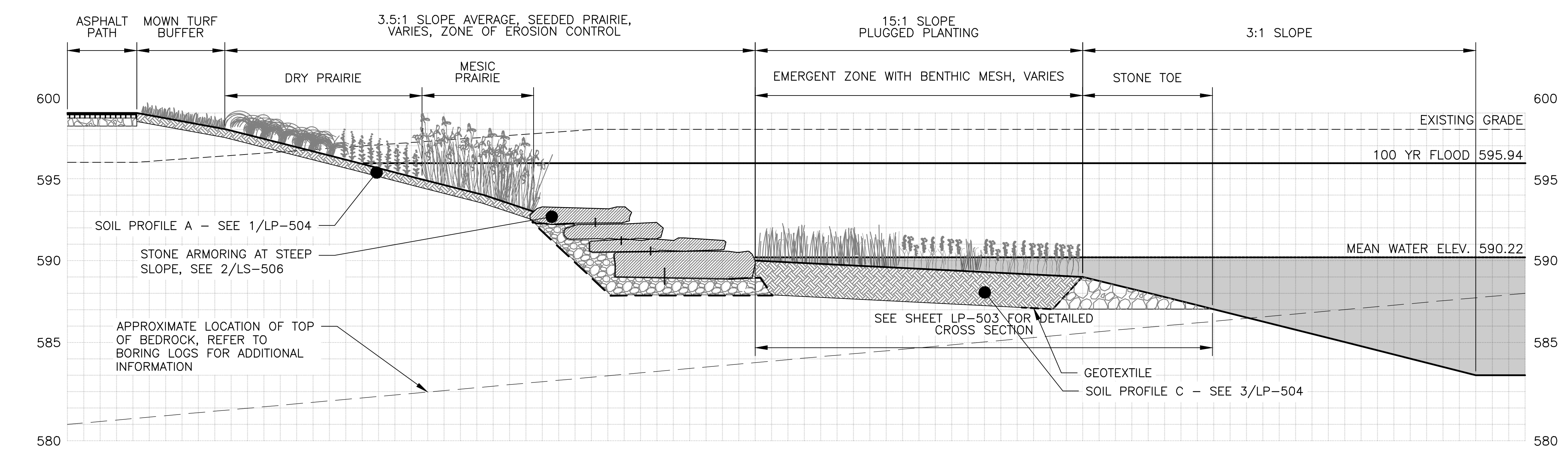
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K SECTION K (APPROXIMATE CONDITIONS REACH MIDPOINT LL-MM TO QQ)
 SCALE: 1" = 4'-0"



L SECTION L (APPROXIMATE CONDITIONS REACH QQ TO TT)
 SCALE: 1" = 4'-0"



M SECTION M (APPROXIMATE CONDITIONS REACH TT TO YY)
 SCALE: 1" = 4'-0"

LEGEND:
 - - - - - CHANNEL MEAN ELEV.
 - - - - - 100 YR FLOOD ELEV.

PLANTING NOTES:
 1. REFERENCE NOTES ON PLANTING DRAWING LP-101.

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METROPOLITAN WATER RECLAMATION DISTRICT
 OF GREATER CHICAGO

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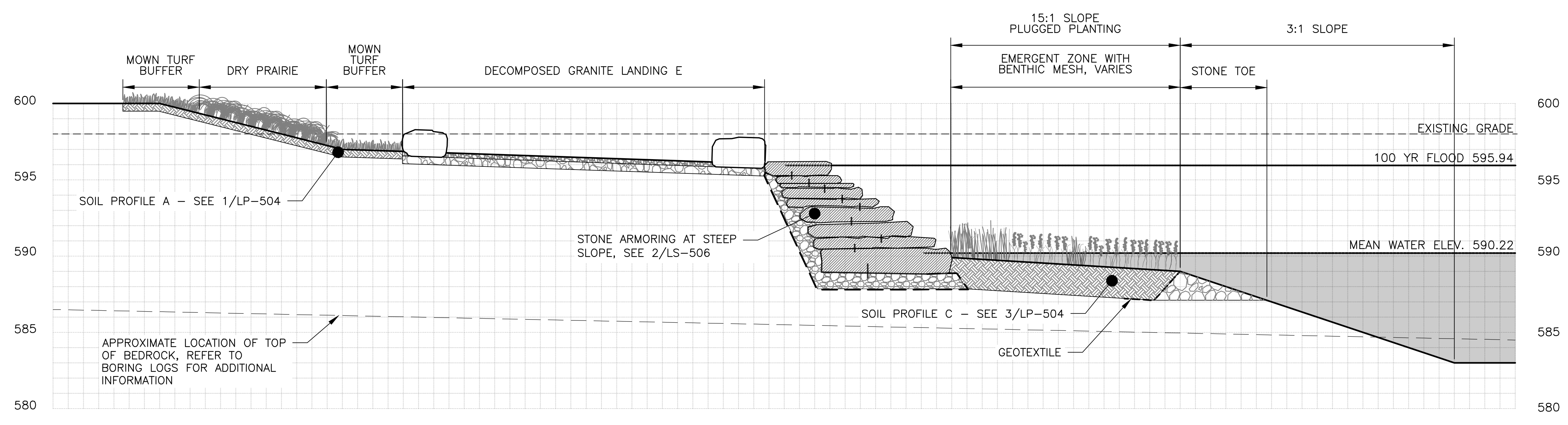
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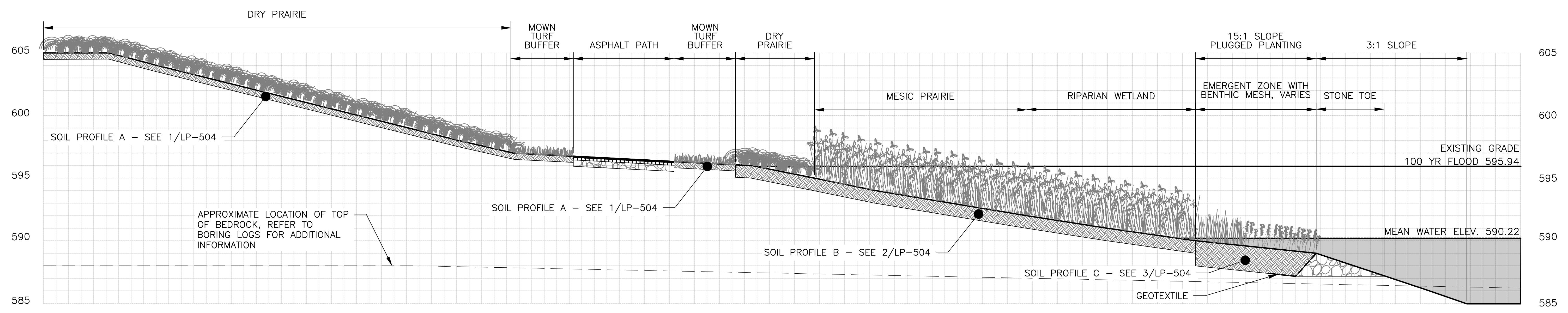
LIVING HABITATS

CONTRACT 14-253-5FR
 FLOOD CONTROL PROJECT ON
 MIDLOTHIAN CREEK IN ROBBINS, ILLINOIS (RE-BID)
 LITTLE CALUMET RIVER WATERSHED
 SHORELINE PLANTING CROSS SECTIONS

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 PLOT DATE: 8/13/2024 12:19 PM PLOTTED BY: HANNAH CUSICK



N SECTION N (APPROXIMATE CONDITIONS REACH YY TO ZZ)
 SCALE: 1" = 4'-0"



O SECTION O (APPROXIMATE CONDITIONS REACH ZZ TO FFF)
 SCALE: 1" = 4'-0"

LEGEND:
 - - - - - CHANNEL MEAN ELEV.
 - - - - - 100 YR FLOOD ELEV.

PLANTING NOTES:
 1. REFERENCE NOTES ON PLANTING DRAWING LP-101.

Rev.	Description	Appr.	Date
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LIVING HABITATS

Sheet Number:
LP-221
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GROUNDCOVER PLANTING SCHEDULE: STORMWATER PARK

EMERGENT SHORELINE PLUG LIST

ABBREVIATIONS	QTY	SCIENTIFIC NAME	COMMON NAME	WETLAND INDICATOR	VEGETATIVE PHYSIOLOGY	SPACING 'D' SEE LP-502
ACOAME	1500	Acorus americanus	SWEET FLAG	OBL	P-FORB	12" O.C.
ALISUB	1645	Alisma subcordatum	COMMON WATER PLANT	OBL	P-FORB	12" O.C.
CXCOMO	1845	Carex comosa	BRISTLY SEDGE	OBL	P-SEDEGE	12" O.C.
CXEMOR	1990	Carex emoryi	EMORY'S SEDGE	OBL	P-SEDEGE	12" O.C.
CXHST	720	Carex hystericina	PORCUPINE SEDGE	OBL	P-SEDEGE	12" O.C.
CXLACU	190	Carex lacustris	COMMON LAKE SEDGE	OBL	P-SEDEGE	12" O.C.
CXRETR	50	Carex retrorsa	DEFLEXED BOTTLE-BRUSH SEDGE	OBL	P-SEDEGE	12" O.C.
CXSTRI	1780	Carex stricta	COMMON TUSSOCK SEDGE	OBL	P-SEDEGE	12" O.C.
DECVER	1605	Decodon verticillatus	SWAMP LOOSESTRIFE	OBL	SHRUB	12" O.C.
GLYSTR	780	Glyceria striata	FOWL MANNA GRASS	OBL	P-GRASS	12" O.C.
IRIVIS	2300	Iris virginica shrevei	SHREVE'S IRIS	OBL	P-FORB	12" O.C.
JUNEFF	1465	Juncus effusus	SOFT RUSH	OBL	P-FORB	12" O.C.
JUSAME	2285	Justicia americana	WATER WILLOW	OBL	P-FORB	12" O.C.
PELVIR	1880	Peltandra virginica	ARROW ARUM	OBL	P-FORB	12" O.C.
PENSED	1635	Penthorum sedoides	DITCH STONECROP	OBL	P-FORB	12" O.C.
PERAMP	2245	Persicaria amphibia	WATER KNOTWEED	OBL	P-FORB	12" O.C.
PONCOR	1645	Pontederia cordata	PICKEREL WEED	OBL	P-FORB	12" O.C.
RUMVER	2310	Rumex verticillatus	SWAMP DOCK	OBL	P-FORB	12" O.C.
SAGLAT	1655	Sagittaria latifolia	COMMON ARROWHEAD	OBL	P-FORB	12" O.C.
SAUCER	570	Saururus cernuus	LIZARD'S TAIL	OBL	P-FORB	12" O.C.
SCHACU	1820	Schoenoplectus acutus	HARD-STEMMED BULRUSH	OBL	P-SEDEGE	12" O.C.
SCHFLU	590	Schoenoplectus fluviatilis	RIVER BULRUSH	OBL	P-SEDEGE	12" O.C.
SCHTAB	470	Schoenoplectus tabernaemontani	GREAT BULRUSH	OBL	P-SEDEGE	12" O.C.
SPAEUR	2145	Sparganium eurycarpum	BROADFRUIT BUR-REED	OBL	P-FORB	12" O.C.

RIPARIAN WETLAND PLUG LIST

ABBREVIATIONS	QTY	SCIENTIFIC NAME	COMMON NAME	WETLAND INDICATOR	VEGETATIVE PHYSIOLOGY	SPACING 'D' SEE LP-502
ANGATR	545	Angelica atropurpurea	GREAT ANGELICA	OBL	P-FORB	12" O.C.
ASCINC	330	Asclepias incarnata	SWAMP MILKWEED	OBLP	P-FORB	12" O.C.
CALCAN	345	Calamagrostis canadensis	BLUE JOINT GRASS	OBL	P-GRASS	12" O.C.
CXATHE	65	Carex atherodes	HAIRY LEAVED LAKE SEDGE	OBL	P-SEDEGE	12" O.C.
CXFRAN	420	Carex frankii	BRISTLY CATTAIL SEDGE	OBL	P-SEDEGE	12" O.C.
CXLACU	834	Carex lacustris	COMMON LAKE SEDGE	OBL	P-SEDEGE	12" O.C.
CXLUPU	85	Carex lupulina	COMMON HOP SEDGE	OBL	P-SEDEGE	12" O.C.
CXPELL	645	Carex pellita	BROAD-LEAVED WOOLY SEDGE	OBL	P-SEDEGE	12" O.C.
CXTRIC	1665	Carex trichocarpa	HAIRY-FRUITED LAKE SEDGE	OBL	P-SEDEGE	12" O.C.
CXTRIB	30	Carex tribuloides	AWL-FRUITED OVAL SEDGE	OBL	P-SEDEGE	12" O.C.
CXVULP	445	Carex vulpinoidea	BROWN FOX SEDGE	OBL	P-SEDEGE	12" O.C.
DOEUMB	65	Doellingeria umbellata	FLAT-TOP ASTER	FACW	P-FORB	12" O.C.
EUPPER	450	Eupatorium perfoliatum	COMMON BONESET	FACW	P-FORB	12" O.C.
EUTMAC	990	Eutrochium maculatum	SPOTTED JOE PYE WEED	OBL	P-FORB	12" O.C.
FILRUB	240	Filipendula rubra	QUEEN OF THE PRAIRIE	OBL	P-FORB	12" O.C.
HELAUT	455	Helenium autumnale	SNEEZEWEED	FACW	P-FORB	12" O.C.
HIBLAE	305	Hibiscus laevis	HALBERD-LEAVED ROSE MALLOW	OBL	P-FORB	12" O.C.
HIBMOS	640	Hibiscus moscheutos	SWAMP ROSE MALLOW	OBL	P-FORB	12" O.C.
HYPASC	1530	Hypericum ascyron	GREAT ST. JOHN'S WORT	FAC	P-FORB	12" O.C.
LIASPI	275	Liatris spicata	MARSH BLAZING STAR	FAC	P-FORB	12" O.C.
LOBCAR	415	Lobelia cardinalis	CARDINAL FLOWER	OBL	P-FORB	12" O.C.
LOBSIP	335	Lobelia siphilitica	GREAT BLUE LOBELIA	OBL	P-FORB	12" O.C.
LUDALT	415	Ludwigia alternifolia	SEEDBOX	OBL	P-FORB	12" O.C.
PACPAU	1300	Packera paupercula	BALSAM RAGWORT	FAC	P-FORB	12" O.C.
PERAMP	105	Persicaria amphibia	WATER KNOTWEED	FACW	P-FORB	12" O.C.
PONCOR	105	Pontederia cordata	PICKEREL WEED	OBL	P-FORB	12" O.C.
PYCVIR	780	Pycnanthemum virginianum	COMMON MOUNTAIN MINT	OBL	P-FORB	12" O.C.
PYCTEN	135	Pycnanthemum tenuifolium	SLENDER MOUNTAIN MINT	FACW	P-FORB	12" O.C.
RUDLAC	1265	Rudbeckia laciniata	WILD GOLDEN GLOW	FACW	P-FORB	12" O.C.
SCIATR	420	Scirpus atrovirens	GREAT BULRUSH	OBL	P-RUSH	12" O.C.
SCIPEN	280	Scirpus pendulus	RED BULRUSH	OBL	P-RUSH	12" O.C.
SENHEB	1500	Senna hebecarpa	WILD SENNA	FACW	P-RUSH	12" O.C.
SOLRID	615	Solidago riddellii	RIDDELL'S GOLDENROD	OBL	P-FORB	12" O.C.
SPAPEC	1630	Spartina pectinata	PRAIRIE CORDGRASS	FACW	P-GRASS	12" O.C.
SPAEUR	105	Sparganium eurycarpum	BROADFRUIT BUR-REED	OBL	P-GRASS	12" O.C.
SYMNOV	625	Symphotrichum novae-angliae	NEW ENGLAND ASTER	FACW	P-FORB	12" O.C.
SYMPUN	780	Symphotrichum puniceum	BRISTLY ASTER, SHINING ASTER	OBL	P-FORB	12" O.C.
THADAS	870	Thalictrum dasycarpum	PURPLE MEADOW RUE	FACW	P-FORB	12" O.C.
VERHAS	1260	Verbena hastata	BLUE VERVAIN	FACW	P-FORB	12" O.C.
VERFAS	1305	Vernonia fasciculata	COMMON IRONWEED	FACW	P-FORB	12" O.C.
VERVIR	95	Veronicastrum virginicum	CULVER'S ROOT	FAC	P-FORB	12" O.C.

RIPARIAN WETLAND SEED MIXTURE (SURROUNDING EXISTING WETLAND)

ABBREVIATIONS	QTY PLS OZ/ACRE	SCIENTIFIC NAME	COMMON NAME	WETLAND INDICATOR	VEGETATIVE PHYSIOLOGY
ASCINC	10	Asclepias incarnata	SWAMP MILKWEED	OBLP	P-FORB
CALCAN	40	Calamagrostis canadensis	BLUE JOINT GRASS	OBL	P-GRASS
ELYRIP	40	Elymus riparius	RIVERBANK WILD RYE	FACW	P-GRASS
EUPPER	10	Eupatorium perfoliatum	COMMON BONESET	FACW	P-FORB
JUNEFF	5	Juncus effusus	SOFT RUSH	OBL	P-SEDEGE
HELAUT	10	Helenium autumnale	SNEEZEWEED	FACW	P-FORB
HIBMOS	10	Hibiscus moscheutos	SWAMP ROSE MALLOW	OBL	P-FORB
PENSED	10	Penthorum sedoides	DITCH STONECROP	OBL	P-FORB
PYCVIR	10	Pycnanthemum virginiana	VIRGINIA MOUNTAINMINT	FACW	P-FORB
SCHTAB	30	Schoenoplectus tabernaemontani	SOFTSTEM BULRUSH	OBL	P-SEDEGE
SCICYP	30	Scirpus cyperinus	DARK GREEN RUSH	OBL	P-SEDEGE
SPAEUR	10	Sparganium eurycarpum	BROADFRUIT BUR-REED	OBL	P-FORB
SYMNOV	10	Symphotrichum novae-angliae	NEW ENGLAND ASTER	FACW	P-FORB
SYMPUN	10	Symphotrichum puniceum	BRISTLY ASTER, SHINING ASTER	OBL	P-FORB
VERHAS	10	Verbena hastata	BLUE VERVAIN	FACW	P-FORB

PLANTING NOTES:

- FOR GROUNDCOVER SPACING SEE 3/LP-502.
- REFERENCE PARTIAL GROUNDPLANE PLANTING PLANS ON LP-203 THROUGH LP-213.
- ALL MULTI-SPECIES BEDS SHOULD HAVE RANDOM MIXING OF ALL SPECIES WITH NO MORE THAN 50 OF ONE SPECIES CLUSTERED TOGETHER. SEDGES AND GRASSES SHOULD BE EVENLY DISTRIBUTED ACROSS EACH BED, NOT CLUSTERED IN GROUPS.

DRY PRAIRIE SEED MIXTURE

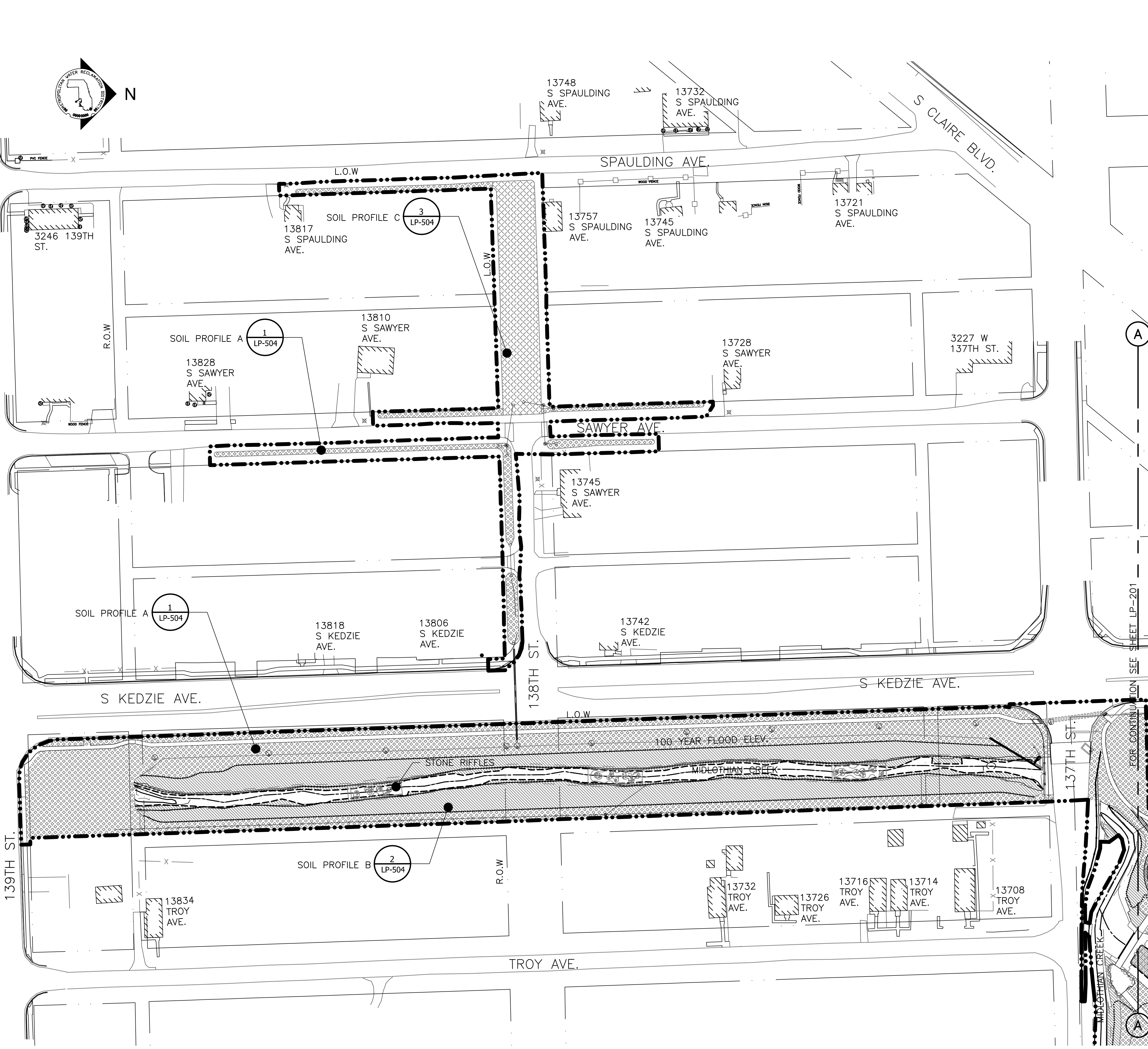
ACRONYM	QTY PLS OZ/ACRE	SCIENTIFIC NAME	COMMON NAME	WETLAND INDICATOR	VEGETATIVE PHYSIOLOGY
ASCSUL	6	Asclepias sultantii	PRAIRIE MILKWEED	UPL	P-FORB
ALLCER	10	Allium cernuum	NODDING WILD ONION	FACU	P-FORB
ASCTUB	6	Asclepias tuberosa	BUTTERFLY WEED	UPL	P-FORB
ASCVER	6	Asclepias verticillata	WHORLED MILKWEED	UPL	P-FORB
AVESAT	640	Avena sativa	OATS	UPL	A-GRASS
BOUCUR	40	Bouteloua curtipendula	SIDE-OATS GRAMA	UPL	P-GRASS
BRIEUP	2	Brickellia eupatorioides var. corymbulosa	FALSE BONESET	UPL	P-FORB
CXBICK	10	Carex bicknellii	COPPER-SHOULDERED OVAL SEDGE	UPL	P-SEDEGE
DALPUR	4	Dalea purpurea	PURPLE PRAIRIE CLOVER	UPL	P-FORB
DRYAGU	4	Drymocallis arguta	PRAIRIE CINQUEFOIL	FACU	P-FORB
ECHPAL	10	Echinacea pallida	PALE PURPLE CONEFLOWER	UPL	P-FORB
ELYCAN	60	Elymus canadensis	CANADA WILD RYE	FACU	P-GRASS
EUPCOR	4	Euphorbia corollata	FLOWERING SPURGE	UPL	P-FORB
HELMOL	2	Helianthus mollis	DOWNY SUNFLOWER	UPL	P-FORB
HELPAU	2	Helianthus pauciflorus	PRAIRIE SUNFLOWER	UPL	P-FORB
LESCAP	6	Lespedeza capitata	ROUND-HEADED BUSH CLOVER	FACU	P-FORB
LIAASP	6	Liatris aspera	ROUGH BLAZING STAR	UPL	P-FORB
MONFIS	10	Monarda fistulosa	WILD BERGAMONT	FACU	P-FORB
PARINT	6	Parthenium integrifolium	WILD QUINNE	UPL	P-FORB
PENPAL	6	Penstemon pallidus	PALE BEARD TONGUE	UPL	P-FORB
PHLPILF	4	Phlox pilosa fulgida	PRAIRIE PHLOX	FACU	P-FORB
RATPIN	6	Ratibida pinnata	YELLOW CONEFLOWER	UPL	P-FORB
RUDHIR	10	Rudbeckia hirta	BLACK-EYED SUSAN	UPL	P-FORB
SCHSCO	30	Schizachyrium scoparium	LITTLE BLUESTEM GRASS	FACU-	P-GRASS
SILINT	10	Silphium integrifolium var. deamii	DEAM'S ROSIN WEED	UPL	P-FORB
SILLAC	10	Silphium laciniatum	COMPASS PLANT	UPL	P-FORB
SILTER	10	Silphium terebinthinaceum	PRAIRIE DOCK	FACU	P-FORB
SISALB	2	Sisyrinchium albidum	COMMON-BLUE-EYED GRASS	FACU	P-FORB
SPOHET	10	Sporobolus heterolepis	PRAIRIE DROPSEED	FACU	P-FORB
SOLRIG	4	Solidago rigida	STIFF GOLDENROD	FACU-	P-FORB
SYMLAE	6	Symphotrichum laeve	SMOOTH ASTER	FACU	P-FORB
TRAOHI	10	Tradescantia ohiensis	COMMON SPIDERWORT	FACU	P-FORB

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

Designed by: LH
 Checked by: LH
 Drawn by: LH
 Reviewed by: LH
 Date: MAY 2024
 Scale: AS SHOWN

CONTRACT 14-253-5FR
 FLOOD CONTROL PROJECT ON
 MIDLOTHIAN CREEK IN ROBBINS, ILLINOIS (RE-BID)
 LITTLE CALUMET RIVER WATERSHED
 PLANTING SCHEDULE

PLOT DATE: 8/13/2024 12:19 PM PLOTTED BY: HANNAH CUSICK
 P:\16-105_Robbins Park - MWRD\04_CAD\14-253-BF\LP-223.dwg 4/25/2024 2:50 PM

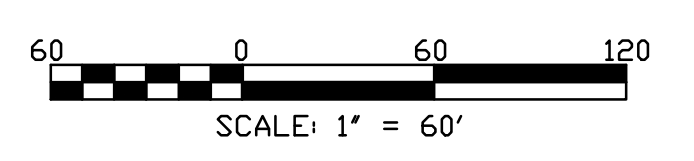


SOILS NOTES:

1. PRIOR TO PLACING PLANTING SOILS, THE CONTRACTOR SHALL CONFIRM THAT ALL PREVIOUS WORK IN PLANT BEDS AND PAVING AREAS HAS BEEN ACCEPTED INCLUDING, BUT NOT LIMITED TO, SUBGRADE PREPARATION, IRRIGATION, UTILITIES, UNDER DRAINAGE, SLEEVING AND MISCELLANEOUS WORK. CONTRACTOR SHALL REPORT ADVERSE CONDITIONS TO ENGINEER, AND SHALL NOT PROCEED UNTIL REMEDIAL WORK IS CORRECTED.
2. MINIMIZE EXCESSIVE COMPACTION DURING SOIL PLACEMENT. BACK-BLADING IS FORBIDDEN.
3. THE CONTRACTOR SHALL LAYOUT AND STAKE THE ELEVATIONS OF ALL SITE ELEMENTS AND PROPOSED UTILITIES FOR APPROVAL BY THE ENGINEER PRIOR TO THE START OF CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE ELEVATIONS SIMULTANEOUSLY WITH LAYOUT.
4. THE CONTRACTOR SHALL PROVIDE NOTICE TO THE ENGINEER UPON COMPLETION OF ROUGH GRADING. ENGINEER TO BE PRESENT TO INSPECT SUBGRADE CONDITION PRIOR TO COMMENCEMENT OF FINISHED GRADE WORK.
5. CONTRACTOR SHALL NOTIFY ENGINEER PRIOR TO DISTURBANCE WITHIN DRIP LINE OF EXISTING TREES. ALL TRANSPLANTED TREES SHOULD BE REMOVED PRIOR TO GRADING.

LEGEND:

- - - - - L.O.W. LIMIT OF WORK
- WOUS WATERS OF UNITED STATES
- - - - - CHANNEL MEAN ELEV.
- - - - - 100 YR FLOOD ELEV.
- [Pattern] SOIL PROFILE A
- [Pattern] SOIL PROFILE B
- [Pattern] SOIL PROFILE C
- [Symbol] STONE RIFFLES
- [Symbol] CHANNEL CENTER LINE & DIRECTION OF FLOW



Rev.	Description	Appr.	Date
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METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

CONTRACT 14-253-5FR
 FLOOD CONTROL PROJECT ON
 MIDLOTHIAN CREEK IN ROBBINS, ILLINOIS (RE-BID)
 LITTLE CALUMET RIVER WATERSHED
SOILS PLAN - MIDLOTHIAN CREEK

Designed by: LH
 Checked by: LH
 Drawn by: LH
 Reviewed by: LH
 Date: MAY 2024
 Scale: AS SHOWN

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 O'Brien & Associates, Inc. CONSULTING ENGINEERS

Sheet Number:
LP-225
 Page Number: 179



- LEGEND:**
- L.O.W. --- LIMIT OF WORK
 - WOUS --- WATERS OF UNITED STATES
 - CHANNEL MEAN ELEV.
 - 100 YR FLOOD ELEV.
 - GUARDRAIL ---
 - [Pattern] SOIL PROFILE A
 - [Pattern] SOIL PROFILE B
 - [Pattern] SOIL PROFILE C

SOIL NOTES:
 1. REFERENCE NOTES ON SOILS DRAWING LP-224.

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

CONTRACT 14-253-5FR
 FLOOD CONTROL PROJECT ON
 MIDLOTHIAN CREEK IN ROBBINS, ILLINOIS (RE-BID)
 LITTLE CALUMET RIVER WATERSHED
SOILS PLAN - STORMWATER PARK

Designed by: LH
 Checked by: LH
 Drawn by: LH
 Reviewed by: LH
 Date: MAY 2024
 Scale: AS SHOWN

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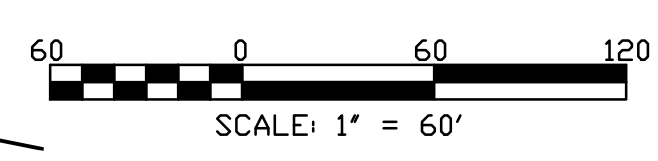
DONOHUE
 ENGINEERS & ARCHITECTS, INC.

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LIVING HABITATS

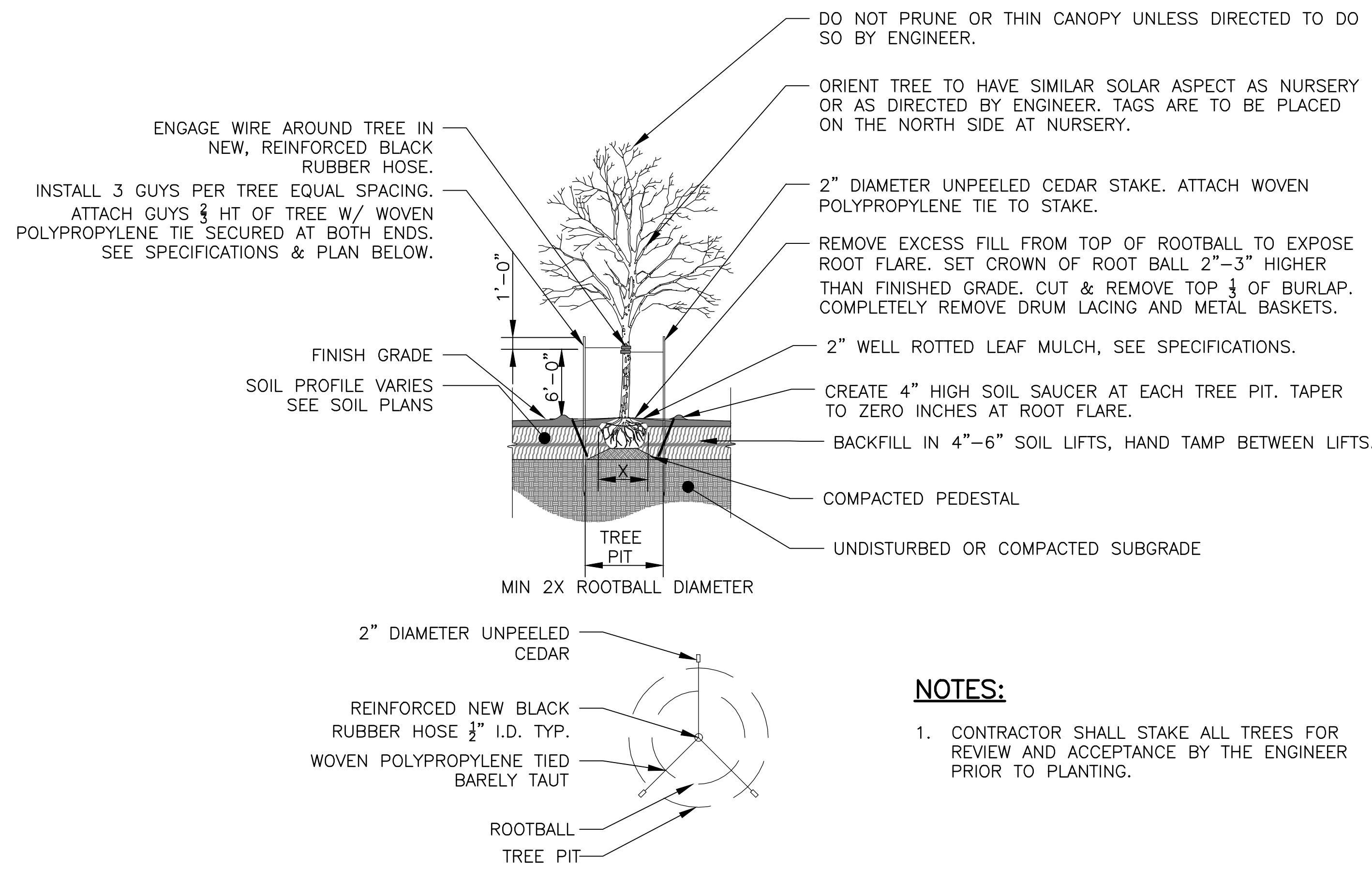
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Rev.	Description	Appr.	Date
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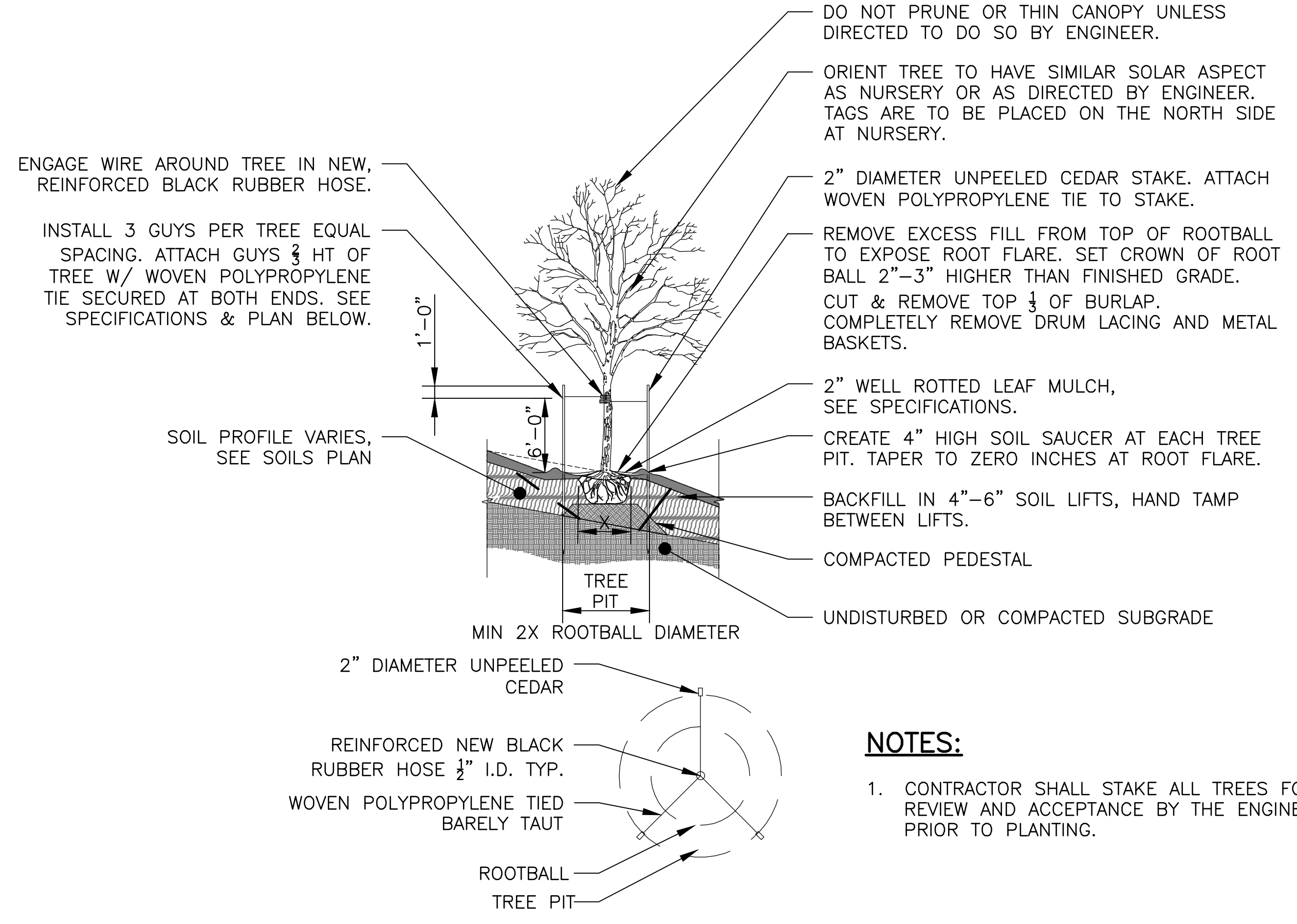


FOR CONTINUATION SEE SHEET LP-101

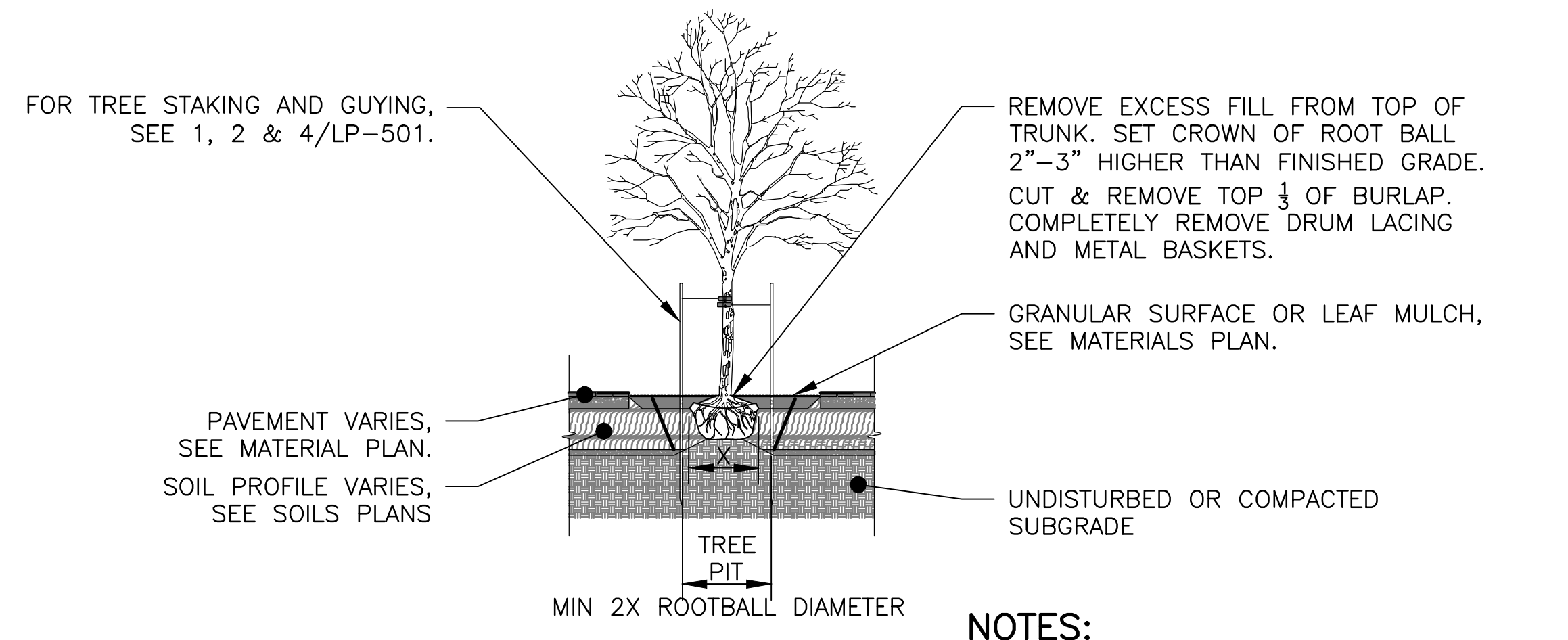
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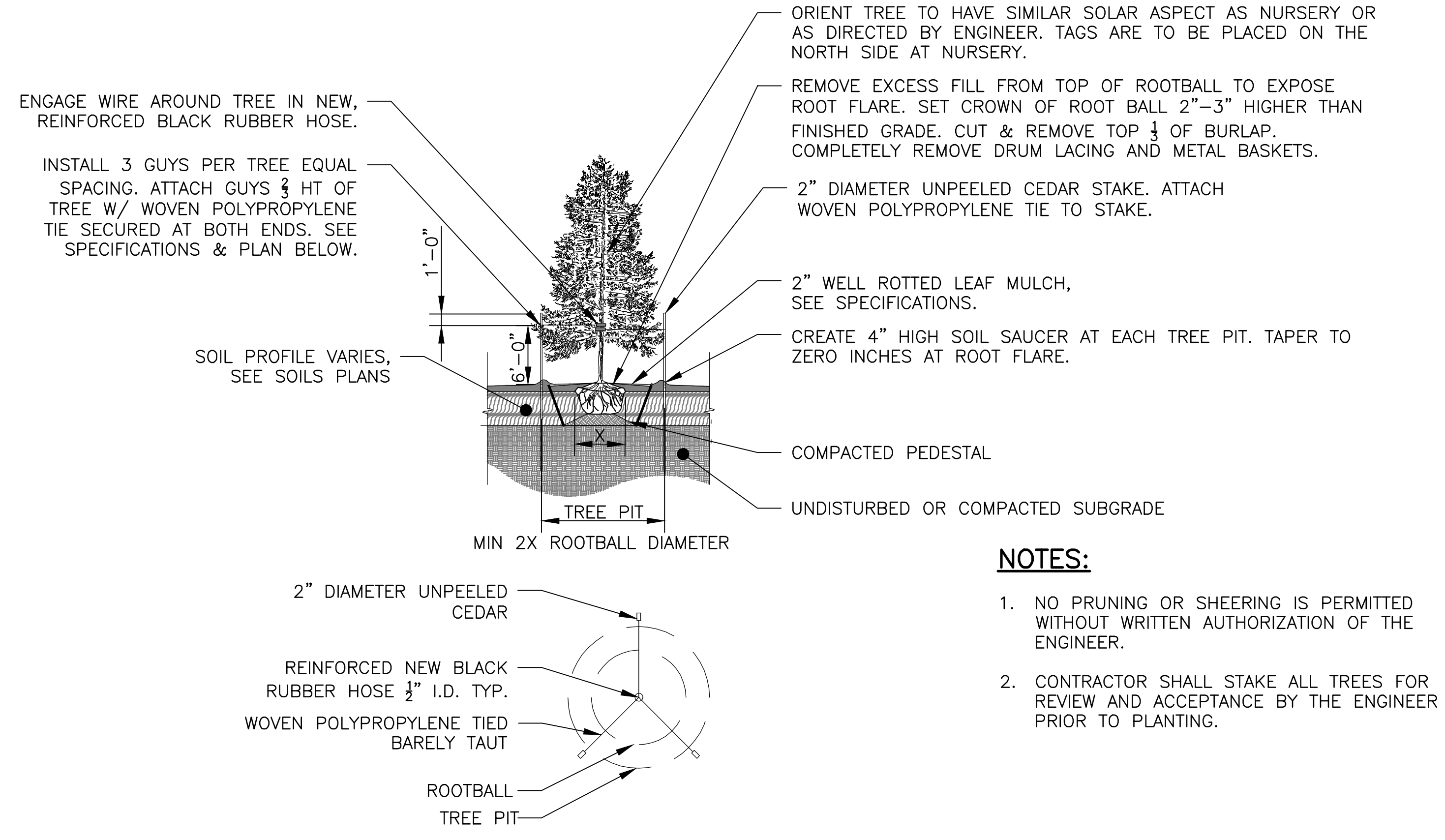
1 DECIDUOUS TREE PLANTING
SCALE: 1/8"=1'-0"



2 DECIDUOUS TREE PLANTING ON SLOPE
SCALE: 1/8"=1'-0"



3 TREE PIT PLANTING
SCALE: 1/8"=1'-0"



4 EVERGREEN TREE PLANTING
SCALE: 1/8"=1'-0"

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METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

CONTRACT 14-253-5FR

FLOOD CONTROL PROJECT ON MIDLOTHIAN CREEK IN ROBBINS, ILLINOIS (RE-BID) LITTLE CALUMET RIVER WATERSHED

PLANTING DETAILS

Designed by: LH

Drawn by: LH

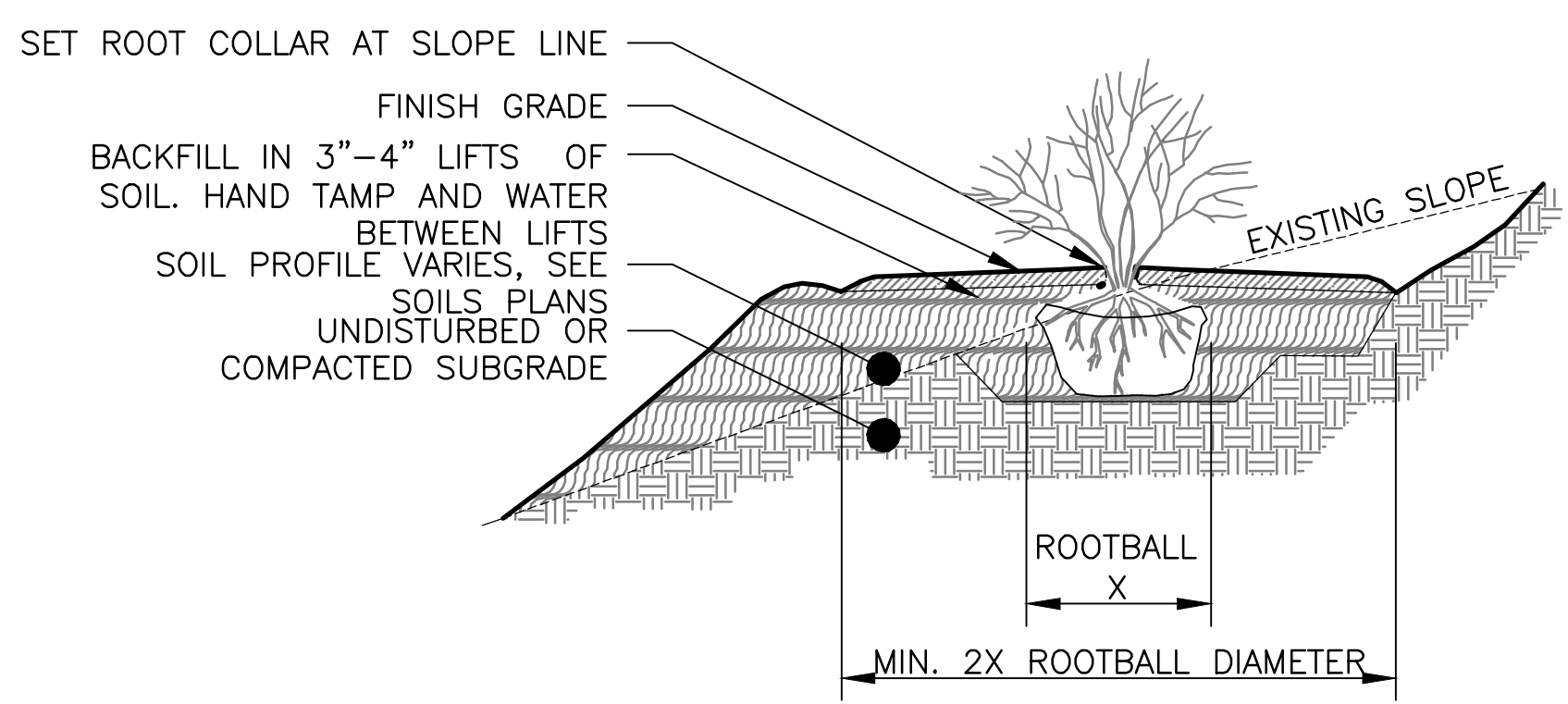
Date: MAY 2024

Checked by: LH

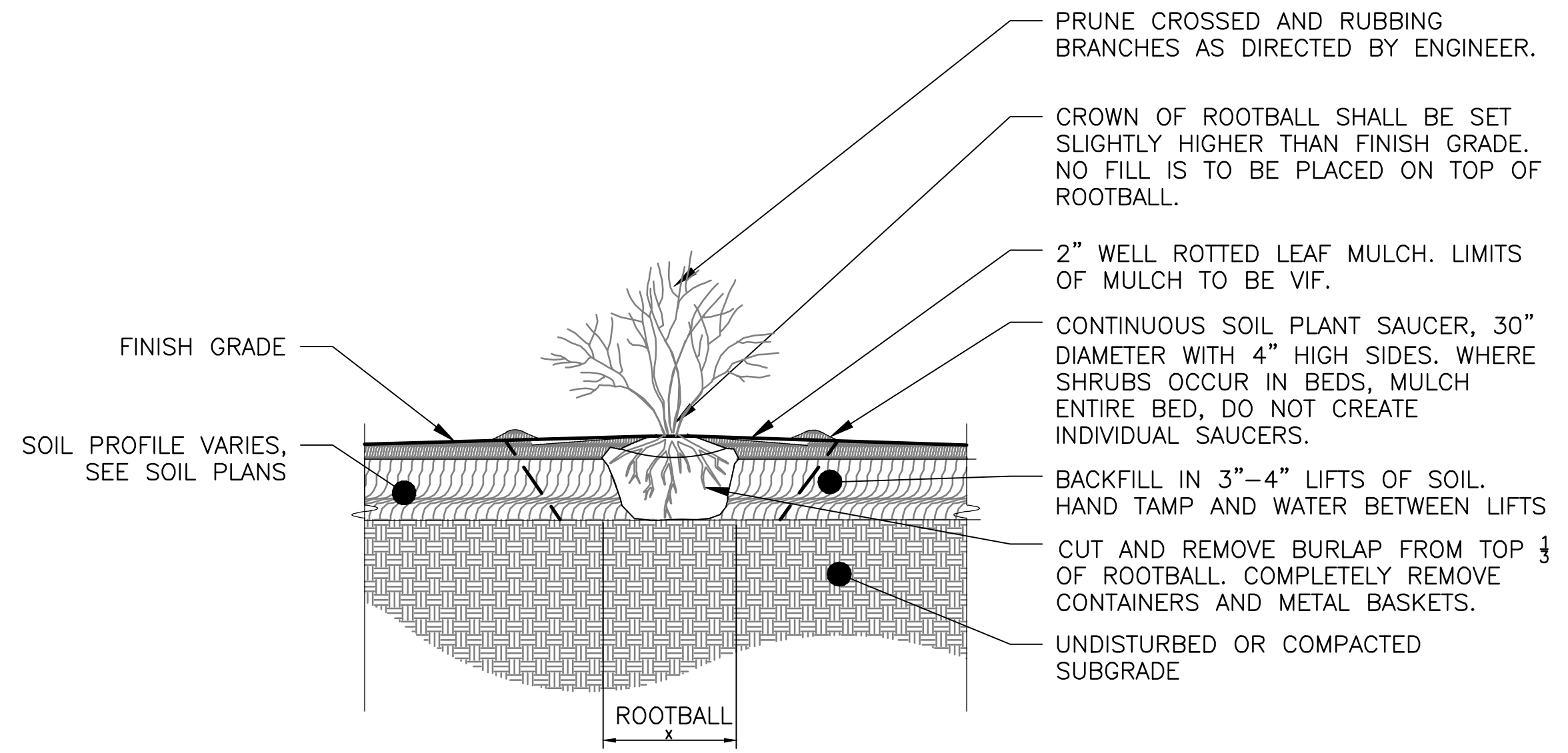
Reviewed by: LH

Scales: AS SHOWN

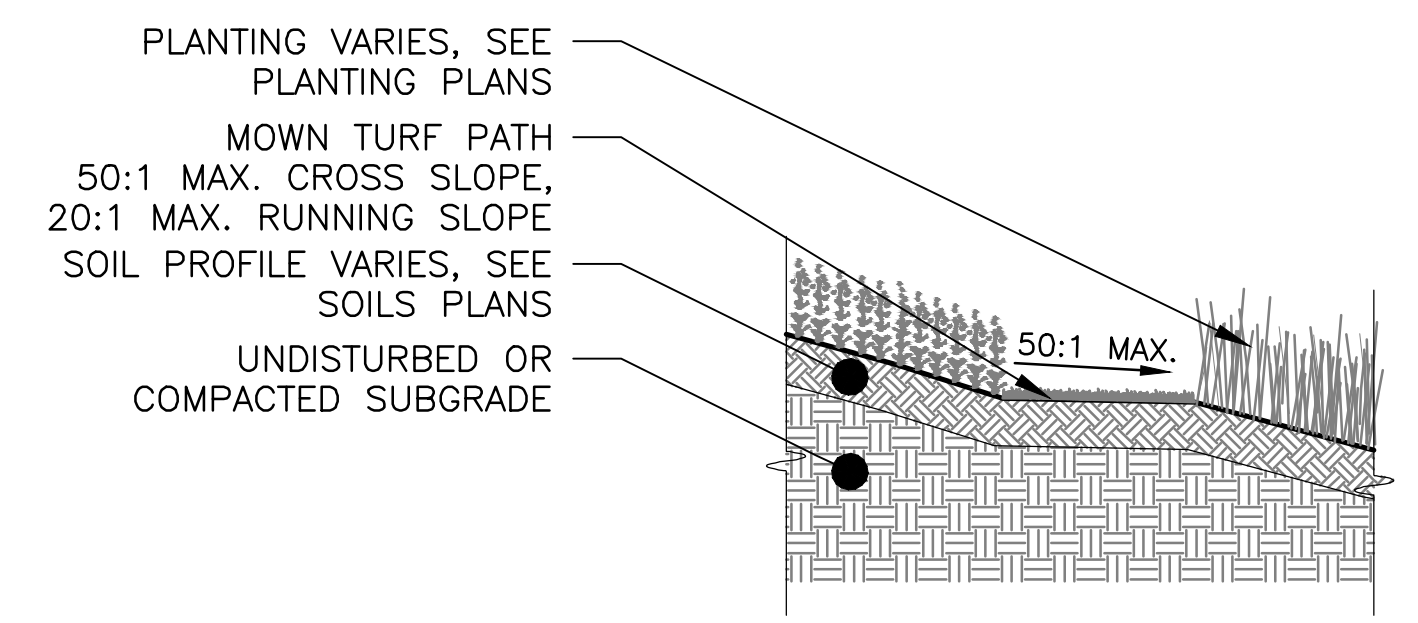
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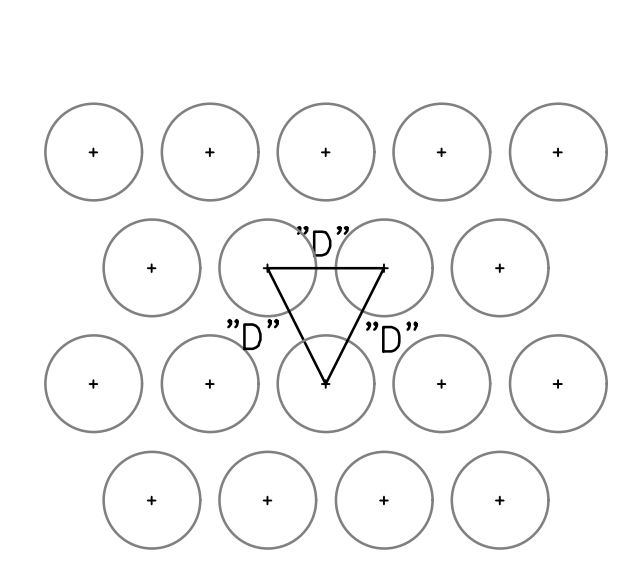
1 SHRUB PLANTING ON SLOPE
SCALE: 1/4"=1'-0"



2 SHRUB PLANTING
SCALE: 1/4"=1'-0"



5 MOWN TURF PATH
SCALE: 1/4"=1'-0"

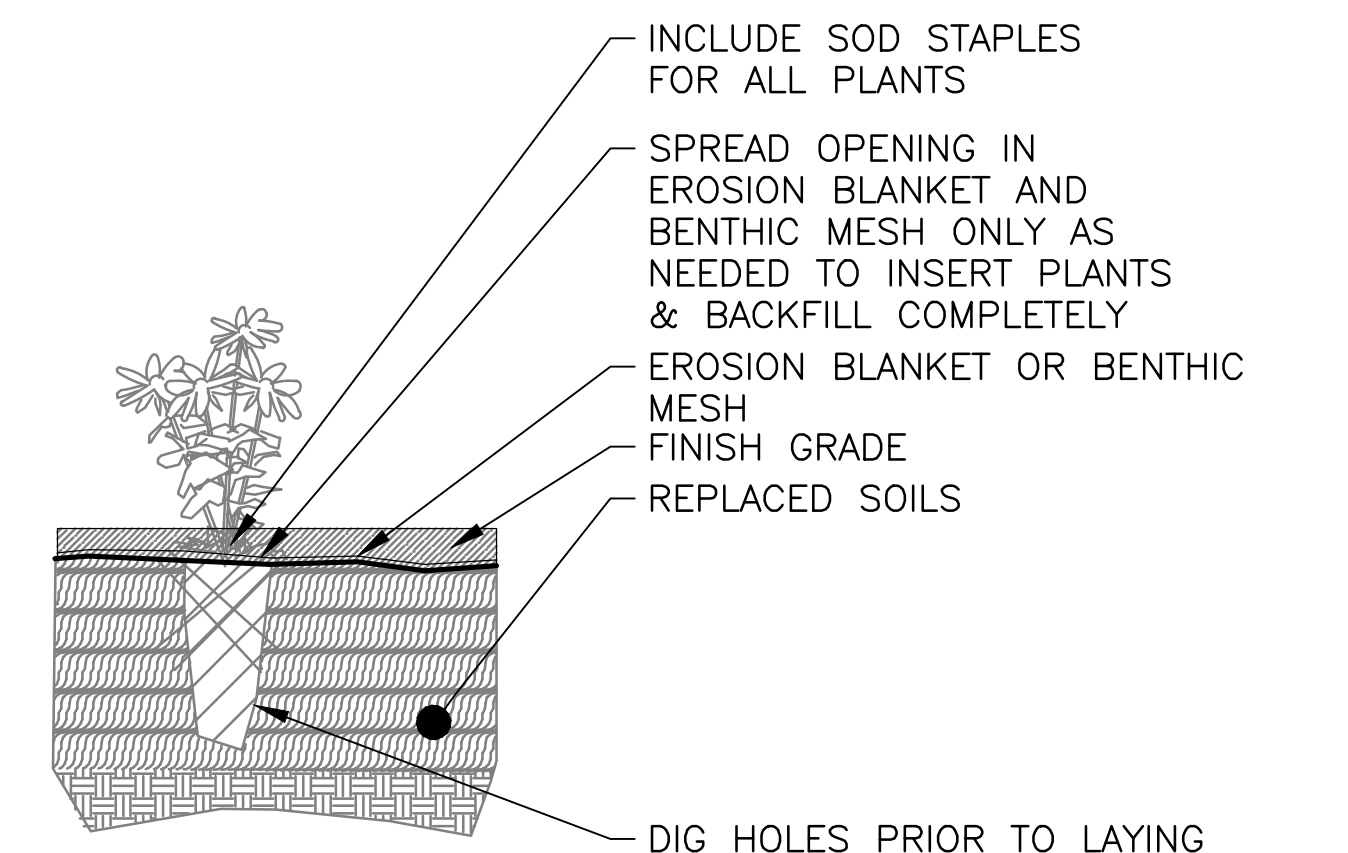


D=DIMENSION OF ON-CENTER PLANT SPACING (SHRUB, GROUNDCOVER OR PERENNIALS) AS INDICATED ON PLANT SCHEDULES.

3 GROUNDCOVER PLANTING/SPACING
SCALE: 1/2"=1'-0"

NOTES:

1. PLANTS TO BE SET APPROXIMATELY AS SHOWN, BUT NOT IN FIXED ROWS - SHOULD HAVE A 'NATURAL' APPEARANCE WITH EDGES WHERE TWO BEDS MEET HAVING A 6"-18" OVERLAP WITH SPECIES BY RANDOM INTERMIXING FROM EACH BED.
2. PLANTING LAYOUT TO BE UNDER THE SUPERVISION OF THE ENGINEER.



NOTES:

1. IF HOLES ARE OVERDUG FOR SIZE OF ROOTBALL, REFILL WITH PULVERIZED SOIL PRIOR TO PLACING PLANT AND FIRMLY HAND COMPACT.
2. CUT APART ANY COILED ROOTBALLS PRIOR TO PLANTING.

4 HERBACEOUS PLANTING DETAIL
SCALE: 1/2"=1'-0"

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METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

CONTRACT 14-253-5FR
FLOOD CONTROL PROJECT ON
MIDLOTHIAN CREEK IN ROBBINS, ILLINOIS (RE-BID)
LITTLE CALUMET RIVER WATERSHED
PLANTING DETAILS

Designed by: LH
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Date: MAY 2024
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LIVING HABITATS

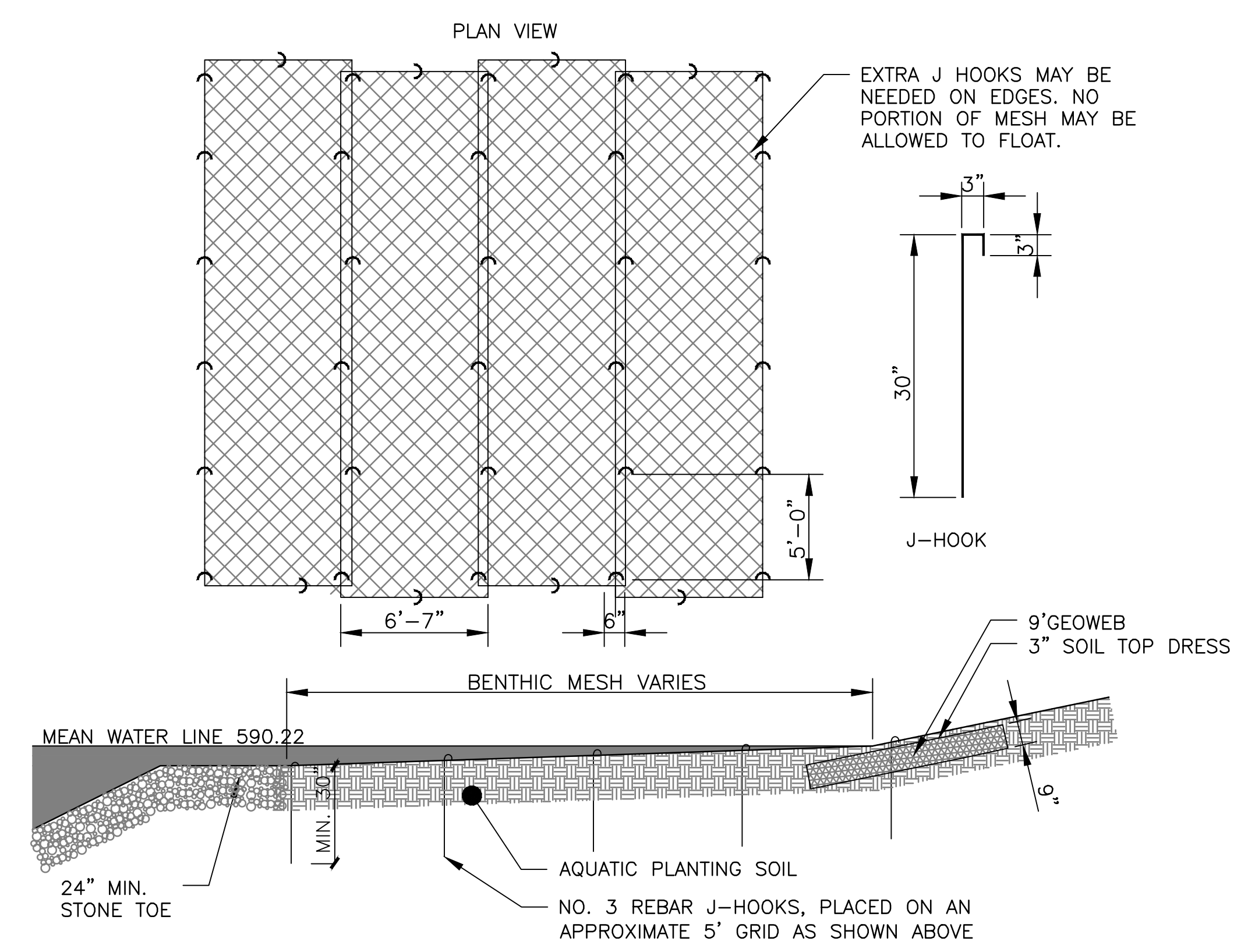
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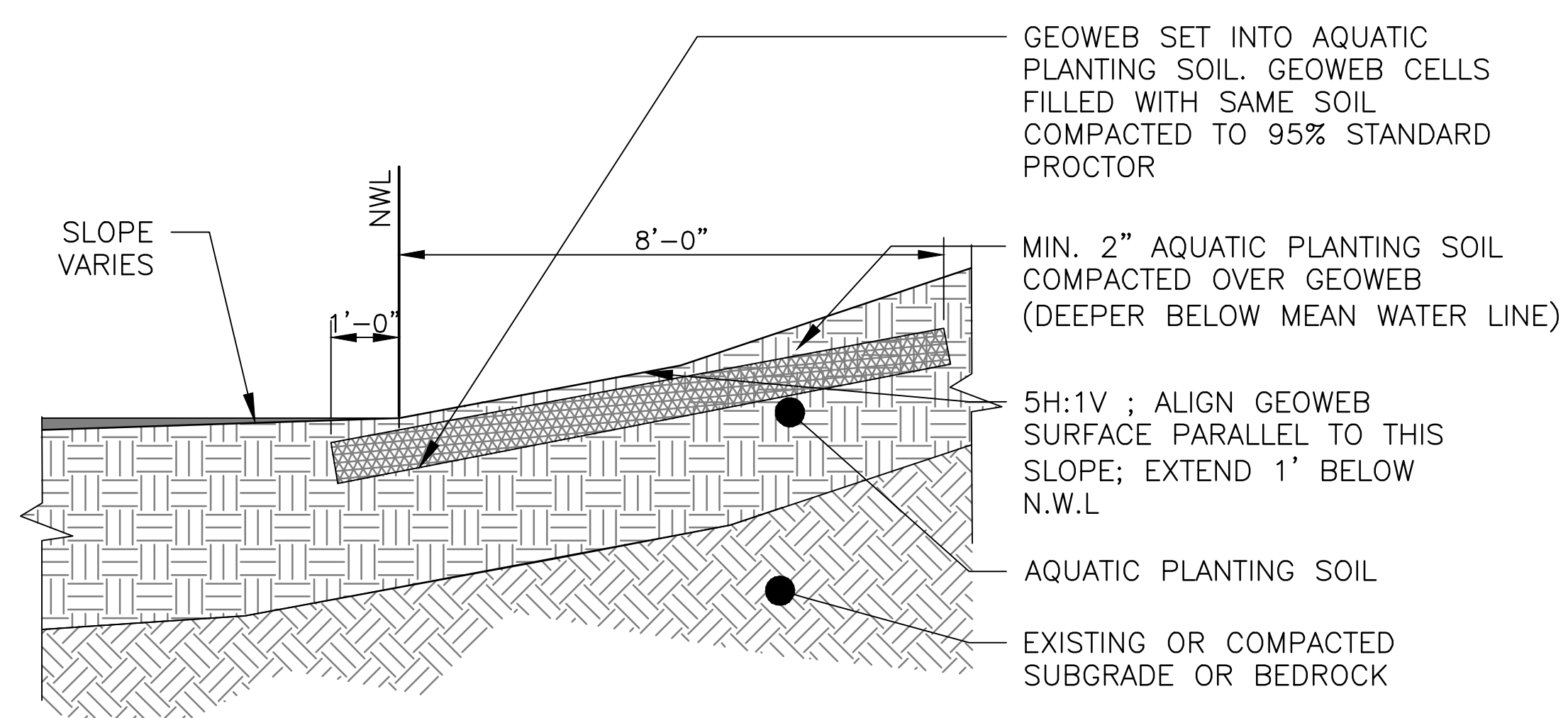
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LP-502

Page Number: 182

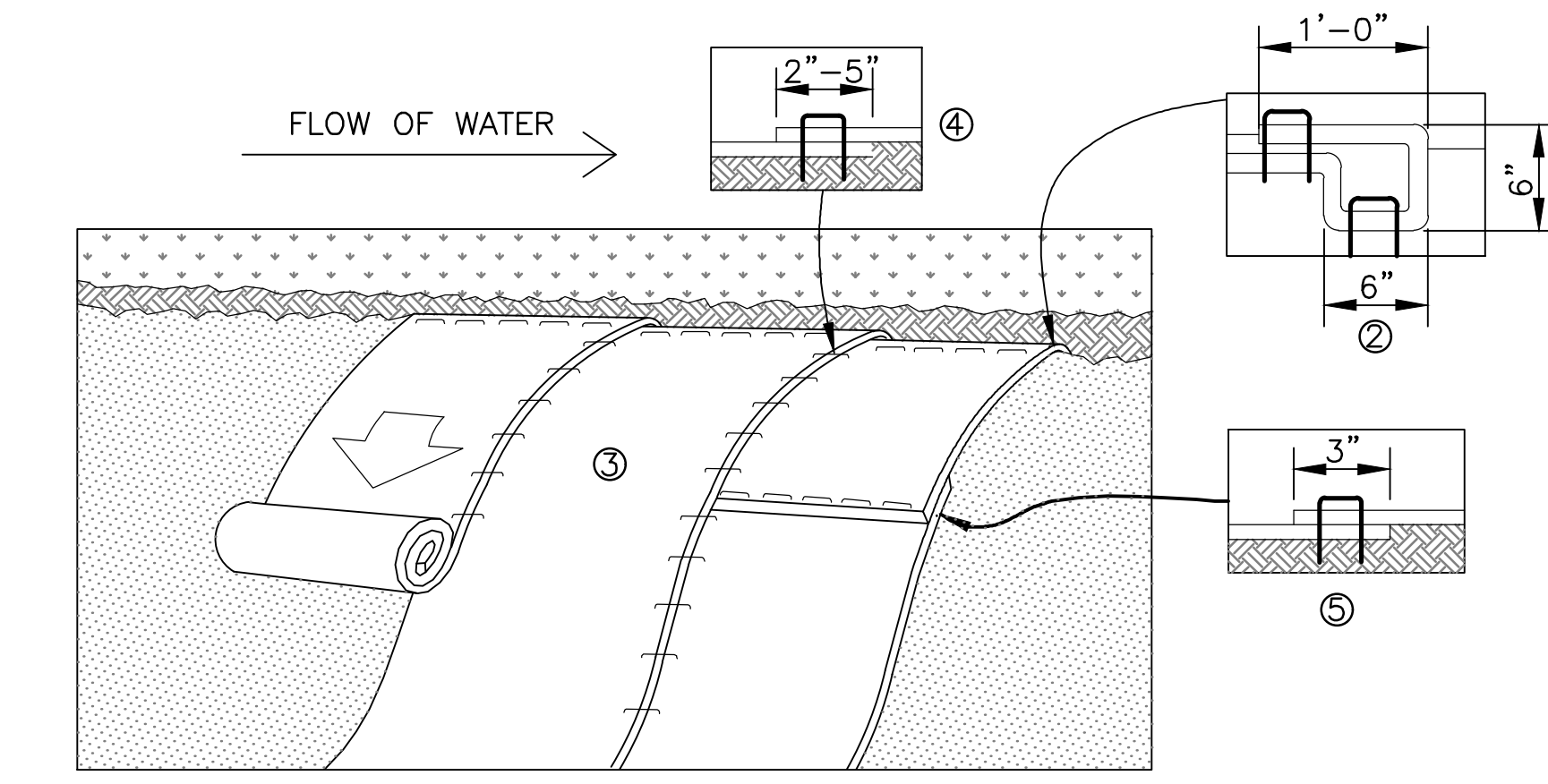
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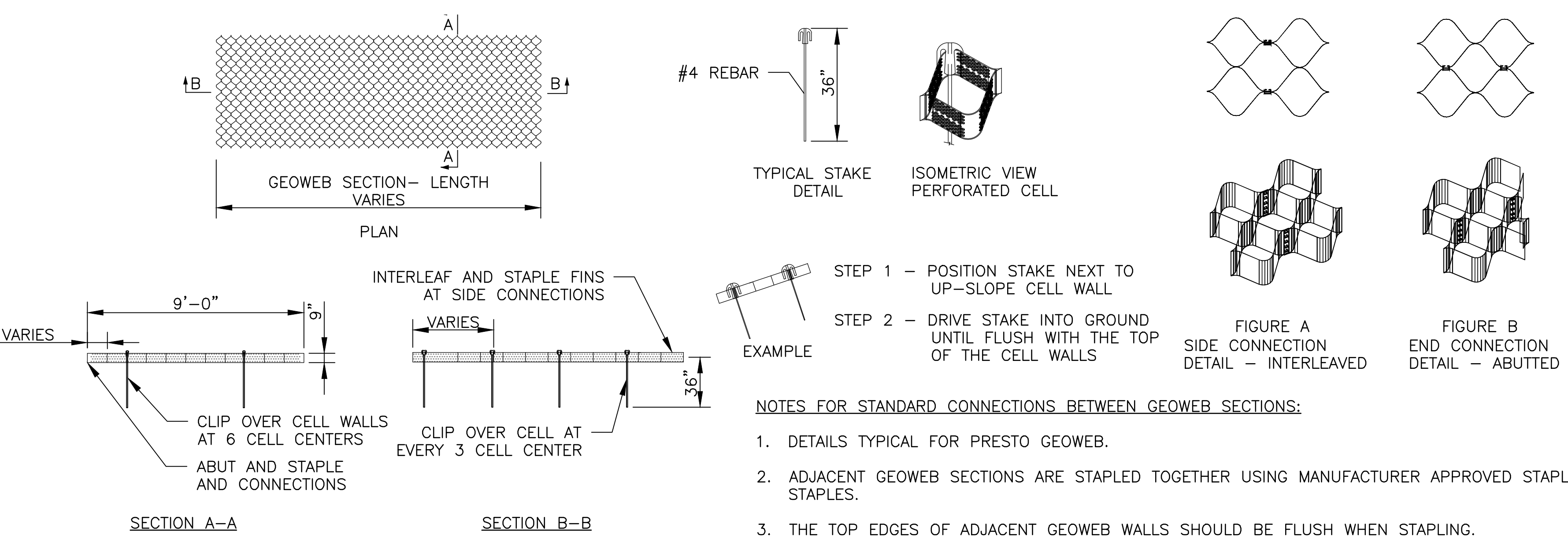
1 BENTHIC MESH PLAN & SECTION
 SCALE: 1"=5'-0"



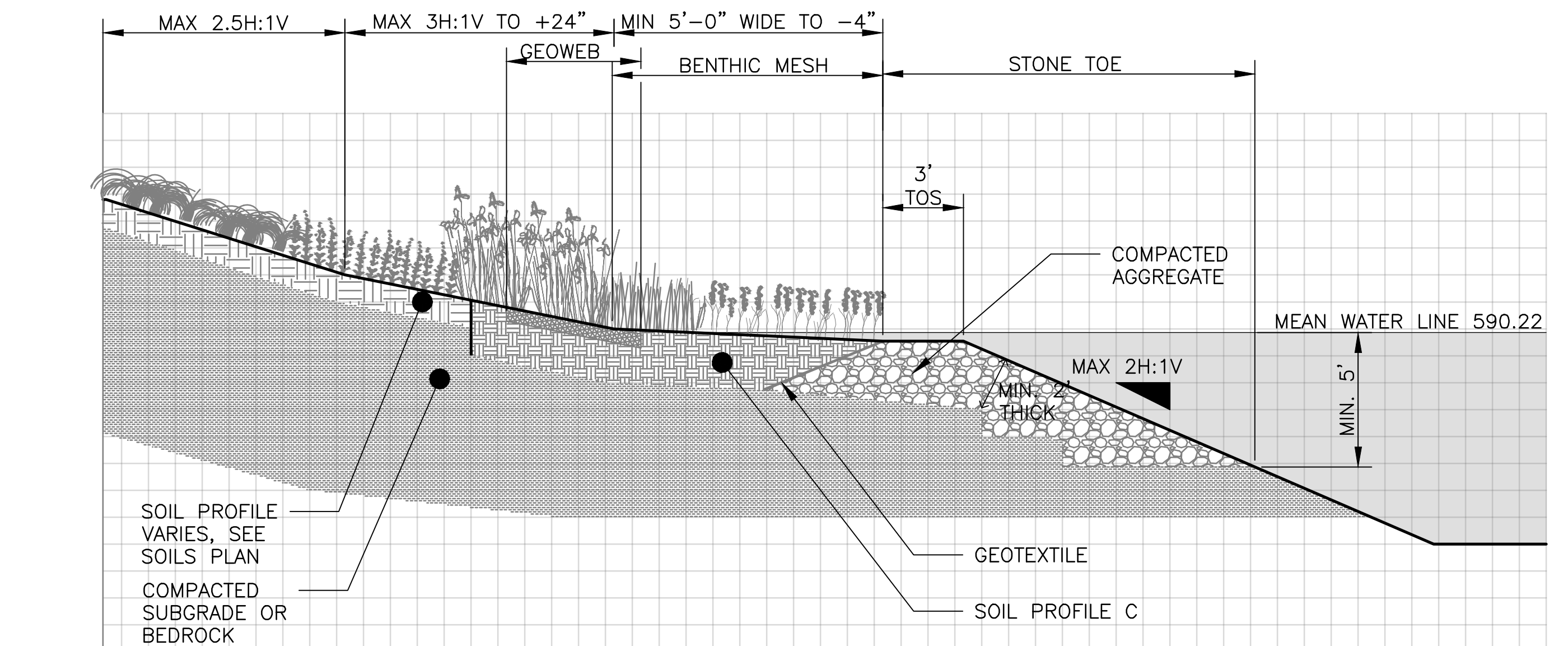
3 GEOWEB CROSS SECTION
 1/2" = 1'-0"



2 EROSION BLANKET
 NOT TO SCALE



4 GEOWEB DETAILS
 NOT TO SCALE



5 SHORELINE CROSS SECTION
 1" = 4'-0"

1. INSTALL PERMANENT EROSION BLANKET AS SHOWN ON PLANS. PLACE AFTER DRILLING PLUG HOLES & PRIOR TO PLANTING.
2. BEGIN PLACING BLANKET AT THE TOP OF THE SLOPE BY ANCHORING THE BLANKET IN A 6" DEEP X 6" WIDE TRENCH WITH APPROXIMATELY 12" OF BLANKET EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE BLANKET WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" APART IN THE BOTTOM OF THE TRENCH. BACK FILL AND COMPACT THE TRENCH AFTER STAPLING. SECURE BLANKET OVER COMPACTED SOIL WITH A FEW STAPLES/STAKES SPACED APPROXIMATELY 12" APART ACROSS THE WIDTH OF THE BLANKET. NOTE THAT IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 8" MAY BE NECESSARY TO PROPERLY SECURE THE BLANKETS.
3. ROLL THE BLANKETS DOWN THE SLOPE. BLANKETS SHOULD UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL BLANKETS MUST BE SECURELY FASTENED TO SOIL SURFACE WITH STAPLES; APPROXIMATELY TWO STAPLES PER SQ. YARD.
4. THE EDGES OF PARALLEL BLANKETS MUST BE STAPLED WITH APPROXIMATELY 3" OVERLAP.
5. CONSECUTIVE BLANKETS SPLICED ON THE SLOPE MUST BE PLACED END OVER END (SHINGLE STYLE) WITH AN APPROXIMATE 3" OVERLAP. STAPLE THOROUGH OVERLAPPED AREA, APPROXIMATELY 12" APART ACROSS ENTIRE BLANKET WIDTH.

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METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

CONTRACT 14-253-5FR
 FLOOD CONTROL PROJECT ON
 MIDLOTHIAN CREEK IN ROBBINS, ILLINOIS (RE-BID)
 LITTLE CALUMET RIVER WATERSHED
SHORELINE DETAILS

Designed by: LH
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 Drawn by: LH
 Reviewed by: LH
 Date: MAY 2024
 Scale: AS SHOWN

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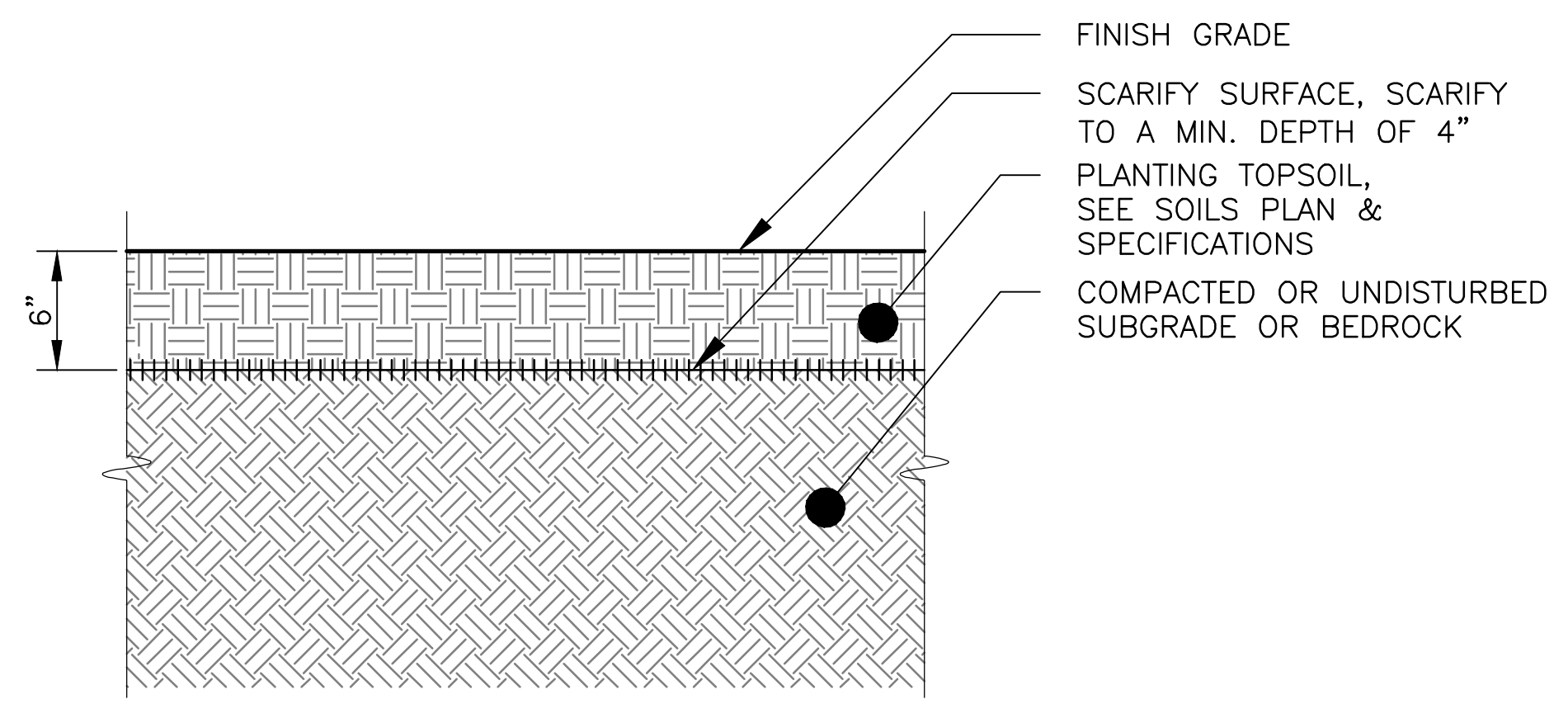
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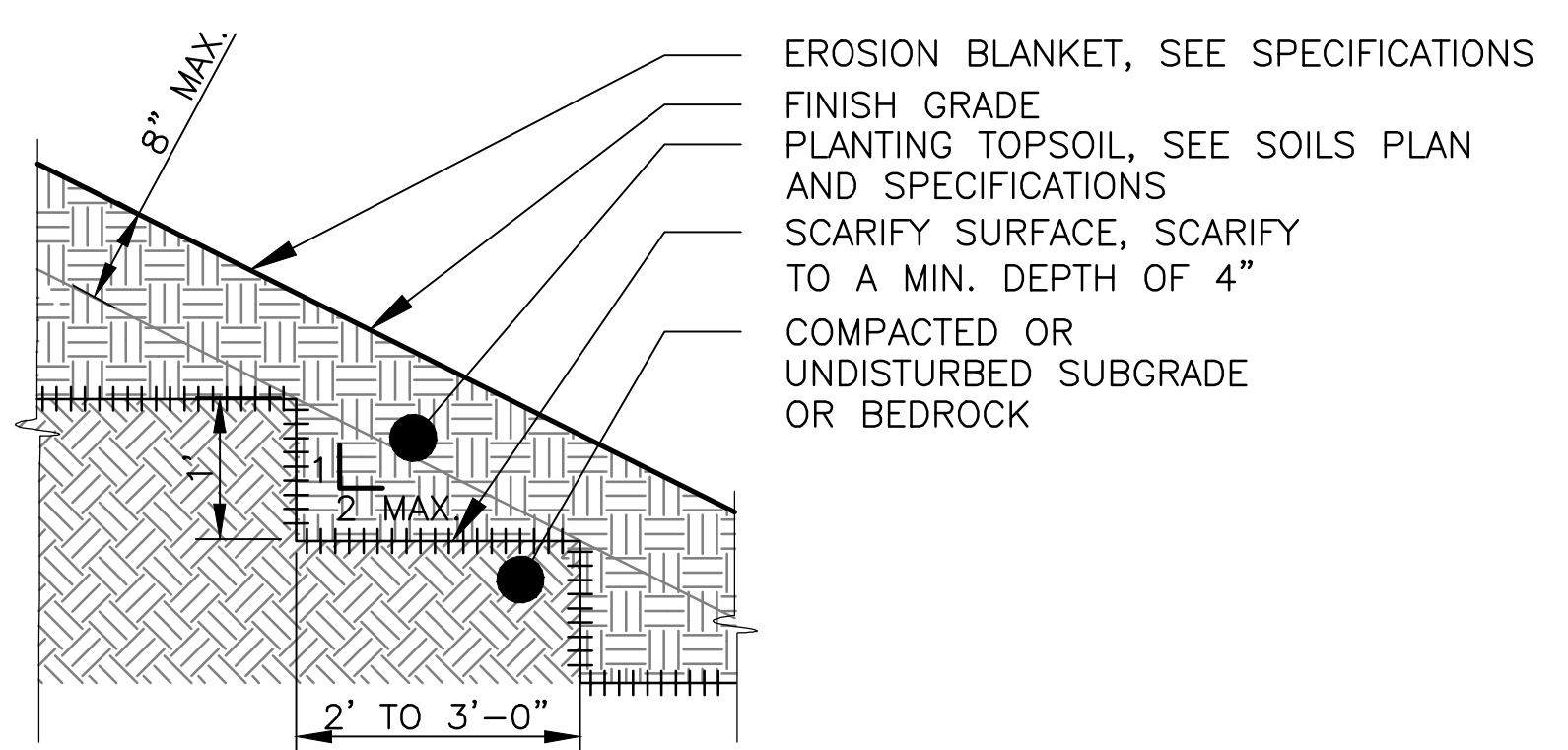
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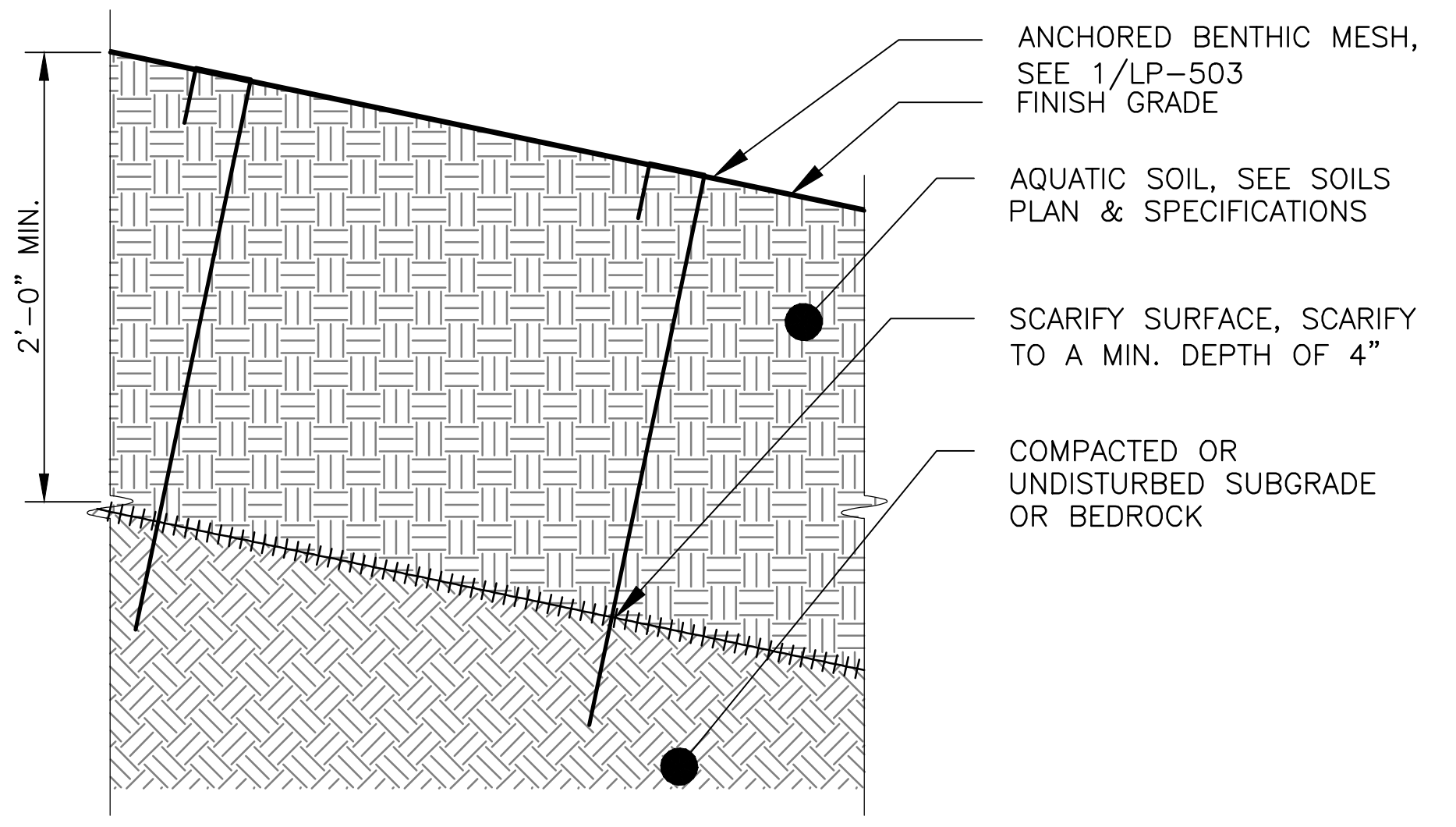
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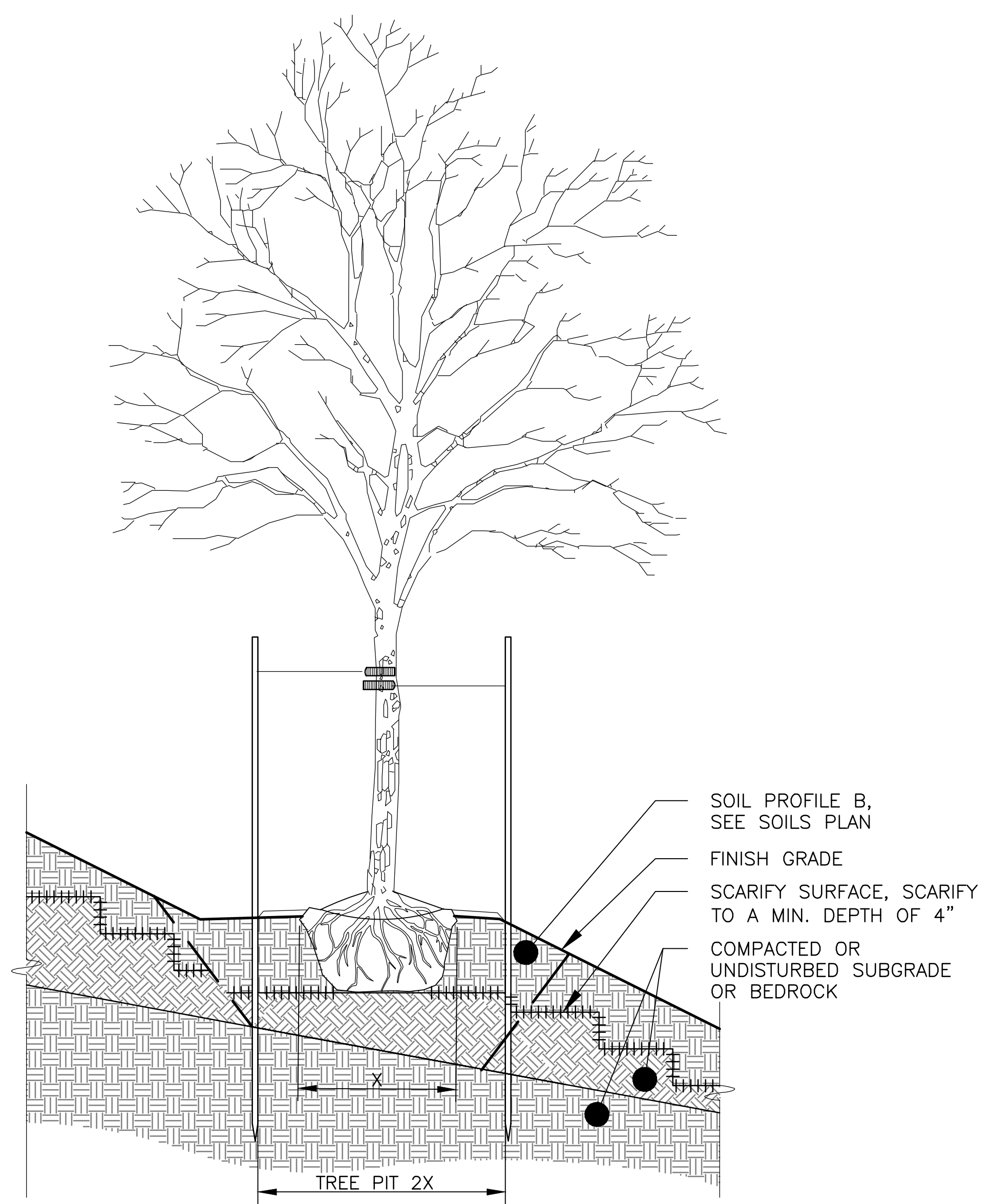
1 SOIL PROFILE A
 SCALE: 1 1/2"=1'-0"



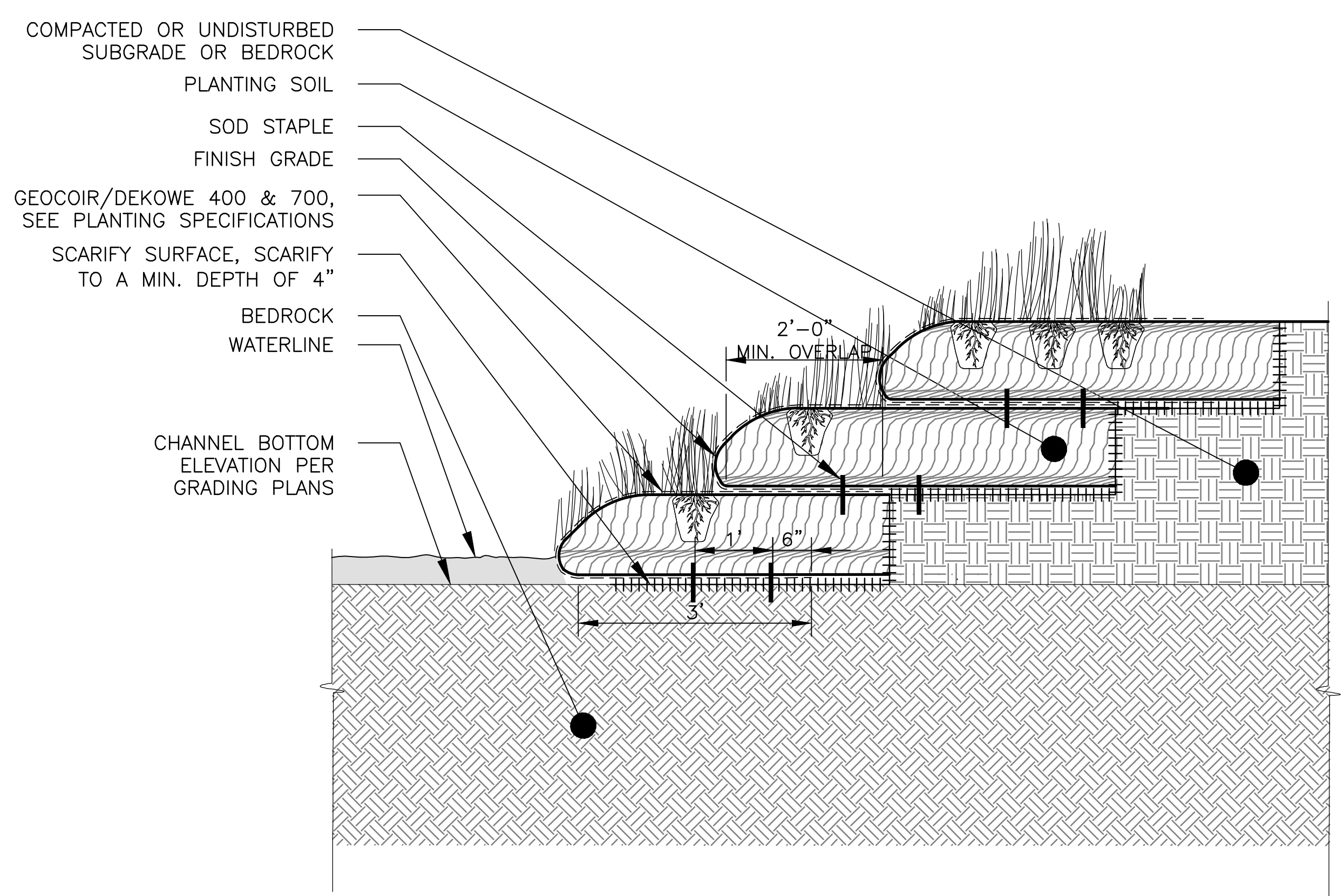
2 SOIL PROFILE B - SUBGRADE STEPPING
 SCALE: 1 1/2"=1'-0"



3 SOIL PROFILE C - AQUATIC PLANTING SOIL
 SCALE: 1 1/2"=1'-0"



4 SOIL PROFILE B - TREE PLANTING ON SLOPE
 SCALE: 3/8"=1'-0"



5 SOIL PROFILE B - HERBACEOUS PLANTING ON SLOPE
 SCALE: 3/4"=1'-0"

Rev.	Description	Appr.	Date
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METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

CONTRACT 14-253-5FR
 FLOOD CONTROL PROJECT ON
 MIDLOTHIAN CREEK IN ROBBINS, ILLINOIS (RE-BID)
 LITTLE CALUMET RIVER WATERSHED
SOILS DETAILS

Designed by: LH
 Checked by: LH
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 Date: MAY 2024
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LP-504

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FOUNDATIONS

- GEOTECHNICAL INVESTIGATION JOB NO. 17571R2 DATED 10/30/2019 BY O'BRIEN & ASSOCIATES, INC INCLUDED IN APPENDIX B OF VOLUME 3
NET ALLOWABLE SOIL BEARING CAPACITIES: 50,000 PSF ON BEDROCK, 20,000 PSF ON FRACTURED ROCK, AND 2,000 PSF ON NATIVE SOIL
- PLACE FOOTINGS ON NATURAL UNDISTURBED EARTH OR STRUCTURAL FILL
- PLACE FILL AGAINST FOUNDATION WALLS ENCLOSING INTERIOR SPACES AFTER CONSTRUCTION SUCH AS CROSS WALLS, BEAMS OR SLABS ARE IN PLACE TO BRACE WALL AND SUCH CONSTRUCTION HAS REACHED ITS DESIGN STRENGTH.
- TO MINIMIZE LATERAL FORCES AGAINST THE STRUCTURE DUE TO WEDGING ACTION OF THE SOIL, BEGIN COMPACTION OF EACH LAYER AT THE STRUCTURE WALL.

REINFORCEMENT

- REINFORCEMENT STEEL
 - DEFORMED BARS: ASTM A615 - GRADE 60
 - WELDED WIRE REINFORCEMENT (WWR): ASTM A1064
- UNLESS NOTED OTHERWISE PROVIDE CLEAR COVER FOR REINFORCEMENT AS FOLLOWS:
 - CAST AGAINST:
 - EARTH: 3 INCHES
 - MUD SLAB: 2 INCHES
 - EXPOSED TO EARTH, WEATHER, OR WATER
 - SLABS:
 - #5 BARS OR SMALLER: 1 1/2 INCHES
 - #6 THROUGH #11 BARS: 2 INCHES
 - WALLS: 2 INCHES
- PLACE DOWELS BEFORE PLACING CONCRETE.
- DO NOT FIELD WELD OR FIELD BEND REINFORCING BARS.

CONCRETE

- DESIGN STRENGTH AT ALL LOCATIONS, EXCEPT WHERE NOTE OTHERWISE
CLASS RA: F'C = 4000 PSI
PROVIDE WATERSTOP IN CONSTRUCTION JOINTS IN LOCATIONS SHOWN ON DRAWINGS.
- UNLESS NOTED OTHERWISE, CONSTRUCTION JOINTS SHOWN ARE OPTIONAL CONSTRUCTION JOINTS NOT SHOWN SHALL BE APPROVED BY ENGINEER.
- BEFORE CONCRETE IS PLACED, CONSTRUCTION JOINTS SHALL BE CLEANED, LAITANCE REMOVED, AND SURFACE WETTED. REMOVE STANDING WATER.
- CONSTRUCTION JOINTS SHALL HAVE ROUGHENED SURFACES. SURFACE SHALL HAVE AMPLITUDE OF 1/4 IN. MIN.
- PROVIDE 3/4 IN. CHAMFER ON EXTERNAL CORNERS OF EXPOSED EDGES OF CONSTRUCTION JOINTS.

METALS

- STEEL
 - W SHAPES: ASTM A992
 - S, C, AND MC SHAPES: ASTM A36
 - SQUARE OR RECTANGULAR TUBE: ASTM A500, GRADE B, 46 KSI
 - PIPE: ASTM A53
 - PLATES AND BARS: ASTM A36
 - BOLTED CONNECTIONS FOR STEEL MEMBERS: ASTM F3125, GRADE A325
 - BOLTED CONNECTIONS FOR ALUMINUM MEMBERS: STAINLESS STEEL
 - STAINLESS STEEL
 - EXTERIOR AND SUBMERGED USES: AISI, TYPE 316
 - INTERIOR AND ARCHITECTURAL USES: AISI, TYPE 304
 - CAST-IN-PLACE ANCHOR BOLTS: AISI, TYPE 316
- ALUMINUM
 - SHAPES AND PLATES: ALLOY 6061-T6 OR 6063-T6
- ANCHOR BOLTS, 1/2" MINIMUM DIA:
 - DRY LOCATIONS: ASTM A307 GALVANIZED
 - ALL OTHER LOCATIONS: STAINLESS STEEL
- WELD STRUCTURAL STEEL WITH E70XX ELECTRODES IN ACCORDANCE WITH AWS REQUIREMENTS.
- WELD ALUMINUM IN ACCORDANCE WITH AWS AND AA REQUIREMENTS.
- COAT ALUMINUM SURFACES IN CONTACT WITH CONCRETE IN ACCORDANCE WITH AA REQUIREMENTS. UNDER NO CIRCUMSTANCES SHALL ALUMINUM CONTACT DISSIMILAR METALS.
- PROVIDE INSULATING BUSHINGS AND/OR GASKETS TO PREVENT CONTACT BETWEEN DISSIMILAR METAL. UNDER NO CIRCUMSTANCES SHALL DISSIMILAR METALS BE IN CONTACT.

MISCELLANEOUS

- VERIFY PERTINENT EXISTING CONDITIONS AND DIMENSIONS BEFORE STARTING CONSTRUCTION AND/OR FABRICATION.
- FOR ADDITIONAL OPENINGS, ANCHORS, AND EMBEDDED ITEMS SEE CIVIL DRAWINGS.

MINIMUM REINFORCEMENT BAR SPLICE AND ANCHORAGE LENGTH (INCHES)

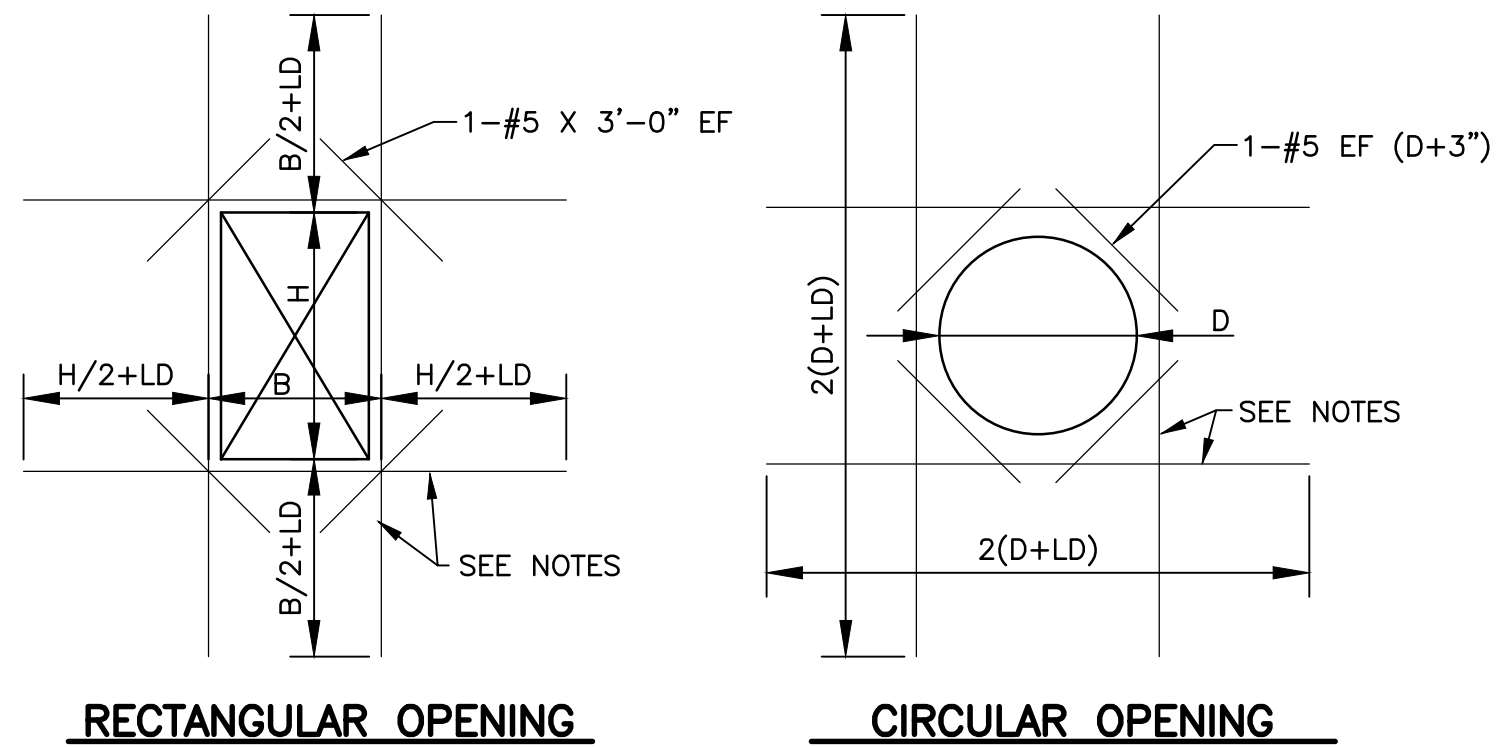
BAR SIZE	LAPPED SPLICE LENGTH		EMBEDMENT LENGTH		COMPRESSION LAP LENGTH
	TOP BARS	OTHERS	TOP BARS	OTHERS	
3	24	19	19	15	12
4	32	25	25	19	15
5	40	31	31	24	19
6	48	37	37	29	23
7	70	54	54	42	26
8	80	62	62	48	30
9	91	70	70	54	34
10	102	78	78	61	38
11	113	87	87	67	42

NOTES:

- TOP BARS ARE HORIZONTAL BARS SO PLACED THAT MORE THAN 12" OF CONCRETE IS CAST IN THE MEMBER BELOW THE BAR.
- FOR BARS SPACED LESS THAN 6 BAR DIAMETER OC INCREASE LENGTH BY 25%.
- WHEN LAPPING TWO DIFFERENT SIZE BARS USE THE LAP LENGTH OF THE SMALLER BAR UNLESS NOTED OTHERWISE.
- EMBEDMENT LENGTH IS MINIMUM LENGTH OF EMBEDMENT FOR STRAIGHT DOWELS WHERE END HOOK IS NOT SHOWN, UNLESS OTHERWISE NOTED.
- COMPRESSION LAP LENGTH FOR VERTICAL COLUMN BARS ONLY.
- HOOKS SHALL BE ACI STANDARD UNLESS OTHERWISE NOTED.
- FOR EPOXY COATED REINFORCEMENT, INCREASE LENGTH BY 20% FOR TOP BARS AND 50% FOR OTHERS.

1 MINIMUM REINFORCEMENT BAR SPLICE AND ANCHORAGE LENGTH

Scale: NONE



RECTANGULAR OPENING

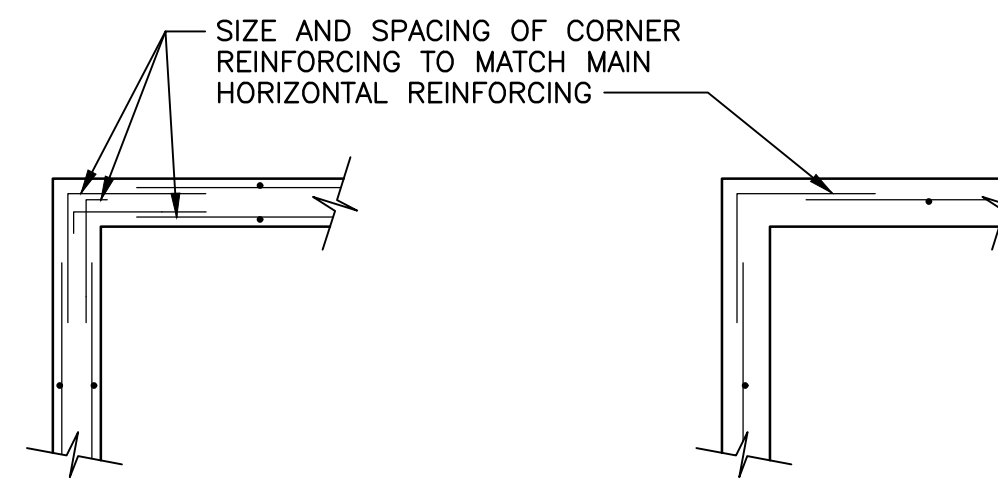
CIRCULAR OPENING

NOTES:

- THESE DETAILS APPLY TO ALL OPENINGS IN CONCRETE WALLS AND SLABS WHEN THE LARGEST OPENING DIMENSION IS GREATER THAN TWO TIMES SECTION THICKNESS OR GREATER THAN REINFORCING SPACING IN THE SECTION, UNLESS OTHERWISE INDICATED IN THE DRAWINGS.
- THE AREA OF ADDITIONAL REINFORCING REQUIRED IN EACH FACE ON EACH SIDE OF AN OPENING SHALL EQUAL OR EXCEED ONE-HALF OF THE AREA OF THE INTERCEPTED BARS IN EACH FACE, IN EACH DIRECTION, RESPECTIVELY WITH A MINIMUM OF 1-#5 BAR EACH FACE.
- PLACE THE ADDED BARS IN THE SAME LAYERS AS THE WALL OR SLAB REINFORCING.
- LD = EMBEDMENT LENGTH. SEE $\frac{1}{S-501}$

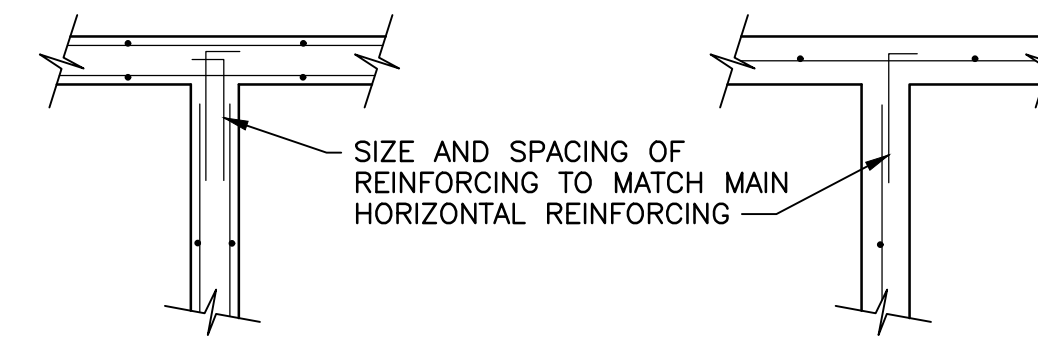
2 ADDITIONAL REINFORCEMENT AT OPENINGS IN WALLS AND SLABS

Scale: NTS



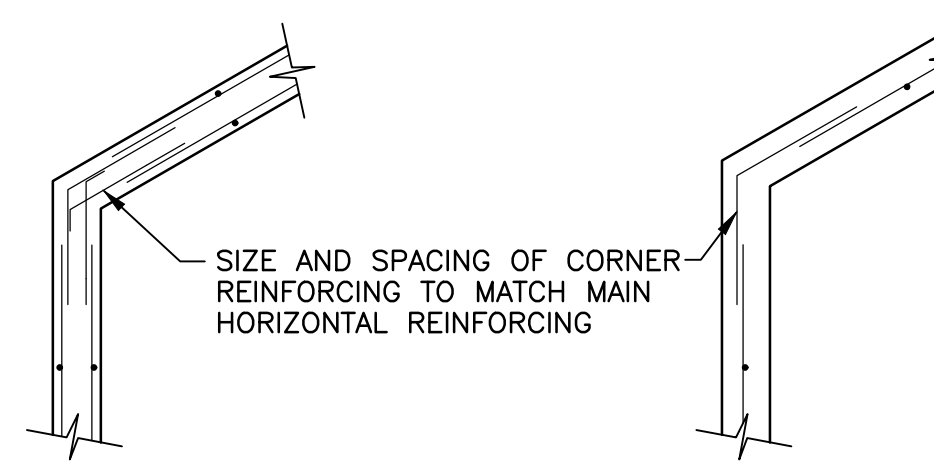
90° CORNER - 2 LAYERS

90° CORNER - 1 LAYER



T-INTERSECTION - 2 LAYERS

T-INTERSECTION - 1 LAYER

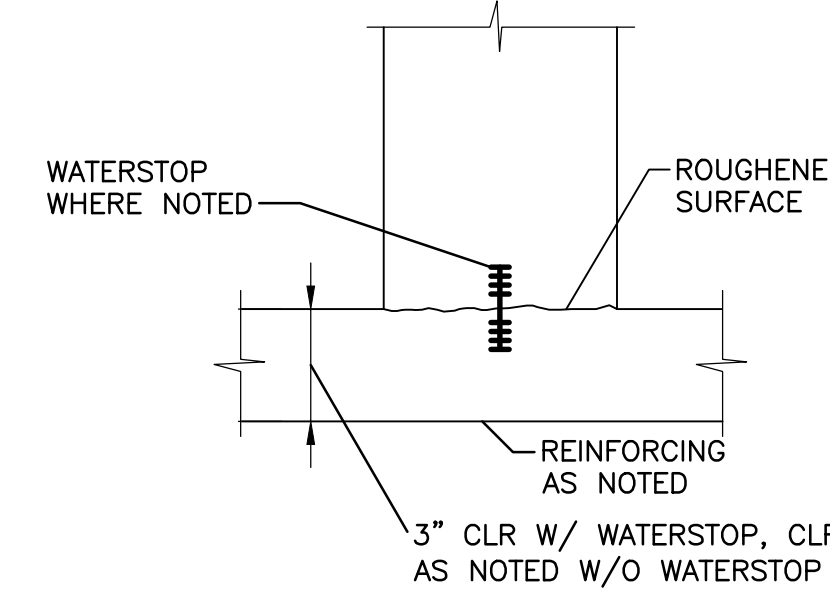


SKewed CORNER - 2 LAYERS

SKewed CORNER - 1 LAYER

3 HORIZONTAL REINFORCEMENT DETAIL

Scale: NTS



BASE OF WALL

4 CONSTRUCTION JOINT DETAILS

Scale: NTS

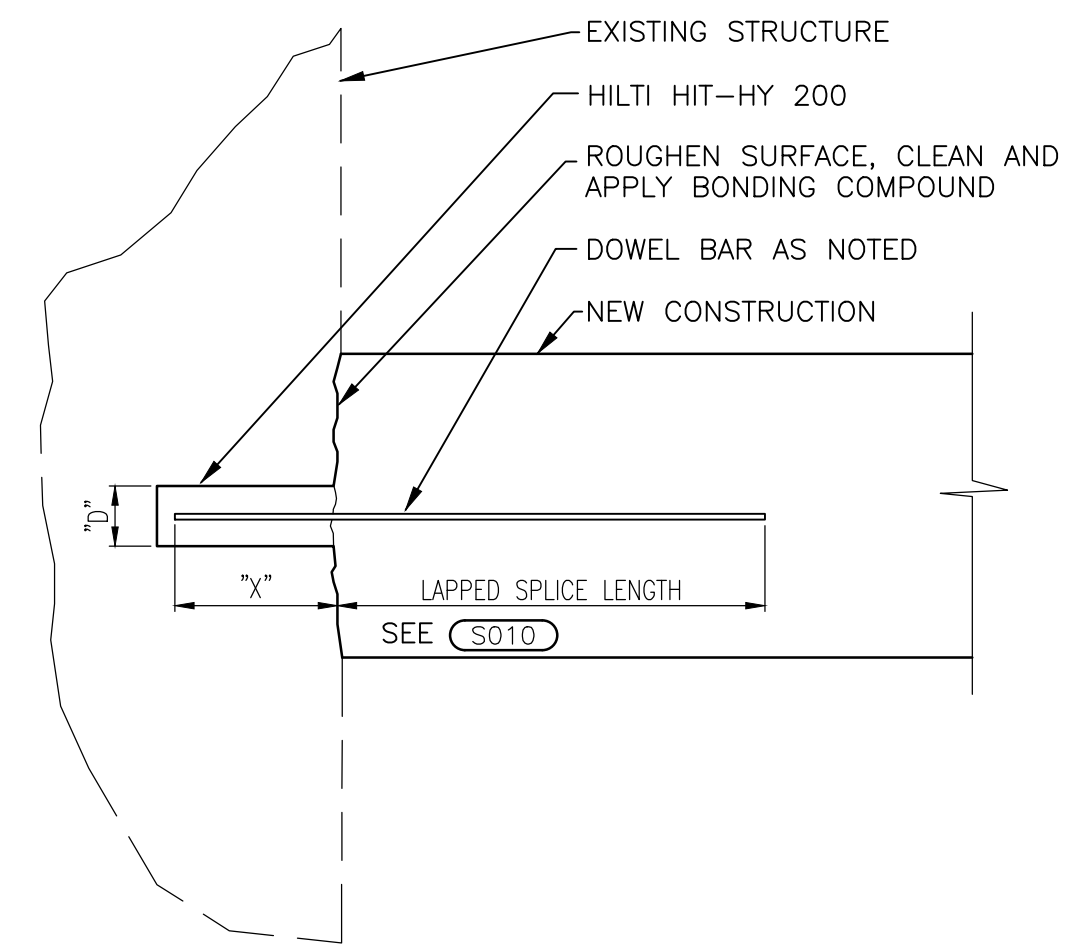
METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

Checked by: PMS
Reviewed by: CLS
Designed by: CEE
Drawn by: CEE
Date: MAY 2024
Scale: AS SHOWN

CONTRACT 14-253-5FR
FLOOD CONTROL PROJECT ON
MIDLOTHIAN CREEK IN ROBBINS, ILLINOIS (RE-BID)
LITTLE CALUMET RIVER WATERSHED
STRUCTURAL GENERAL NOTES AND
STANDARD DETAILS

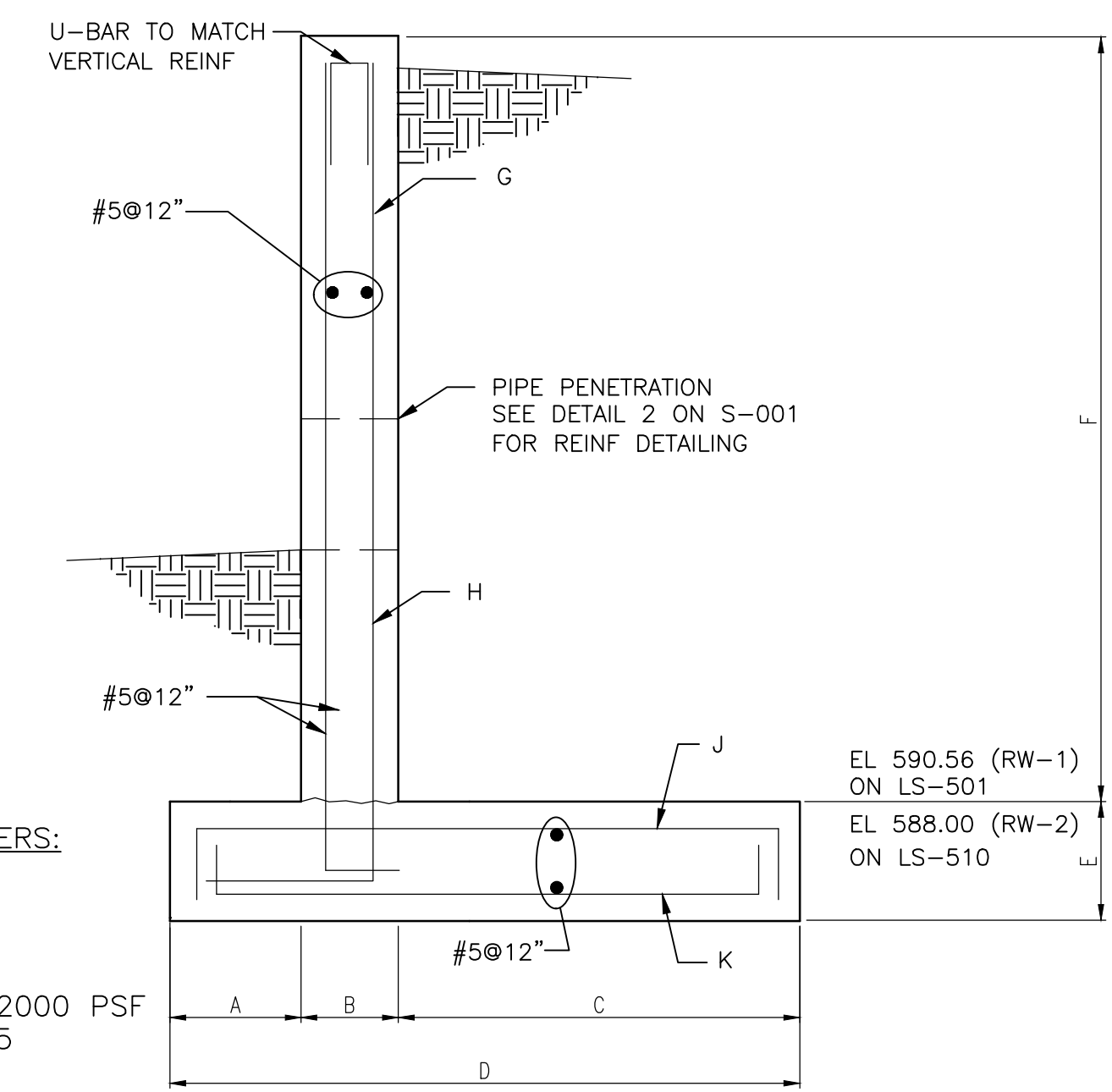
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- NOTES:**
1. EMBEDMENT "X"=16 BAR DIAMETERS MIN.
 2. HOLE DIAMETER "D" PER MFR'S REQUIREMENTS.

5 DRILLED IN DOWEL DETAIL
Scale: NTS



RETAINING WALL DESIGN PARAMETERS:
 SOIL UNIT WEIGHT: 125 PCF
 Ko: 40 PCF/FT
 COEFFICIENT OF FRICTION: 0.30
 LIVE LOAD SURCHARGE: 300 PSF
 ALLOWABLE BEARING PRESSURE: 2000 PSF
 MINIMUM FACTORS OF SAFETY: 1.5

SELECTION	A	B	C	D	E	F	BAR G	BAR H	BAR J	BAR K
RW-1	1'-0"	1'-0"	2'-6"	4'-6"	1'-3"	3'-0"	#5@12"	#5@12"	#5@12"	#5@12"
RW-2	1'-0"	1'-0"	2'-6"	4'-6"	1'-0"	3'-6"	#5@12"	#5@12"	#5@12"	#5@12"

7 RETAINING WALL DETAIL
Scale: NTS

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METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

Designed by: CEE
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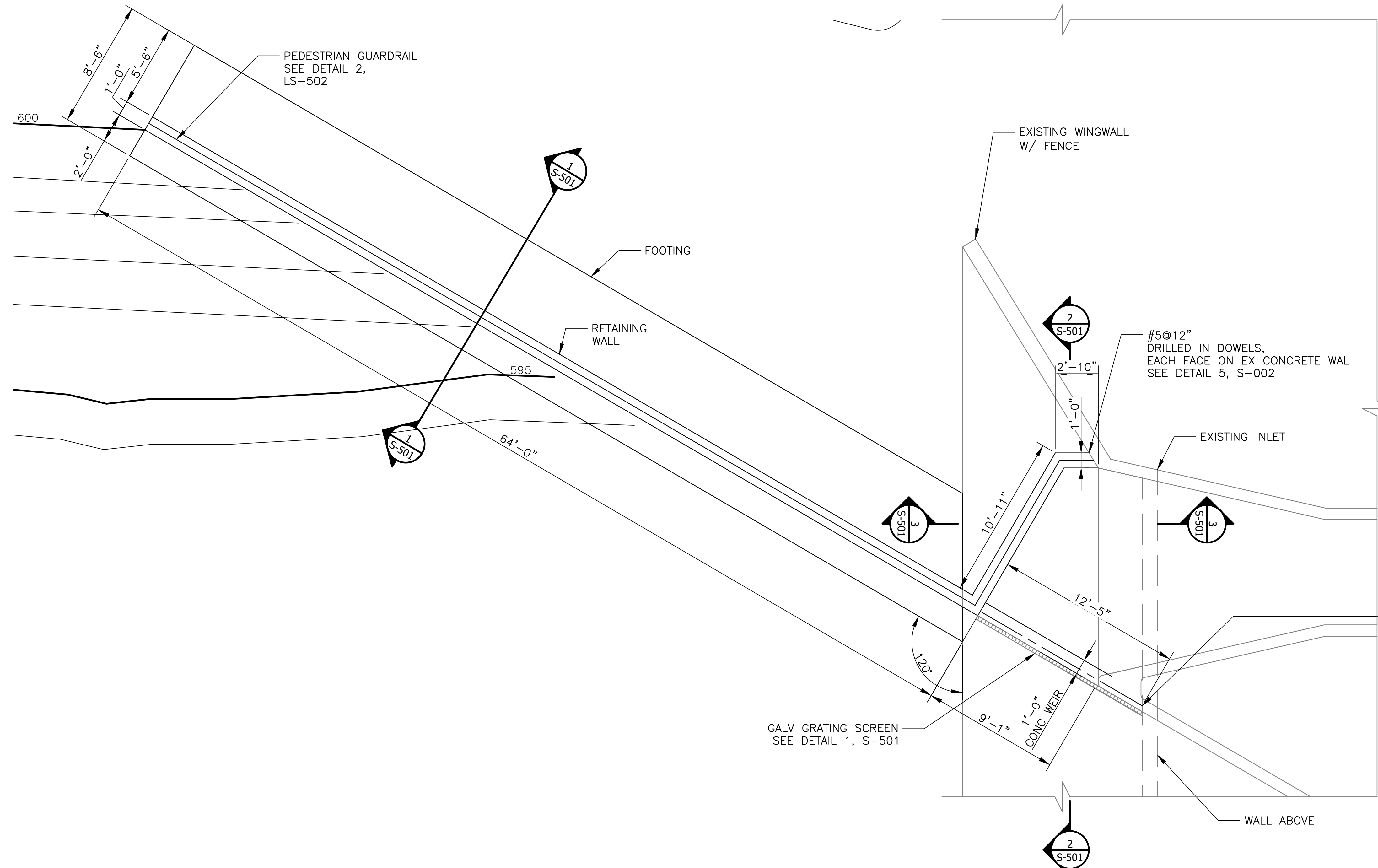
DONOHUE
 CONSULTING ENGINEERS

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 CONSULTING ENGINEERS

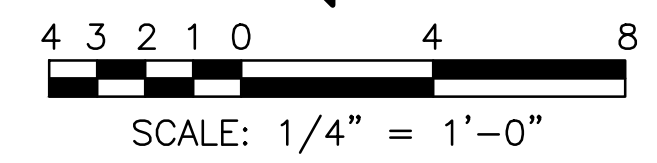
CONTRACT 14-253-5FR
 FLOOD CONTROL PROJECT ON
 MIDLOTHIAN CREEK IN ROBBINS, ILLINOIS (RE-BID)
 LITTLE CALUMET RIVER WATERSHED

STRUCTURAL STANDARD DETAILS



- GENERAL NOTES:**
- SEE LG-103, CU-101, AND CU-104 FOR LOCATION OF DIVERSION WEIR.
 - DIVERSION WEIR DESIGN PARAMETERS:
 SOIL UNIT WEIGHT: 125 PCF
 Ko: 40 PCF/FT
 COEFFICIENT OF FRICTION: 0.70
 LIVE LOAD SURCHARGE: 300 PSF
 ALLOWABLE BEARING PRESSURE: 2000 PSF
 MINIMUM FACTOR OF SAFETY: 1.5
 - CONTRACTOR TO FIELD VERIFY EXISTING CONDITIONS, DIMENSIONS, AND ELEVATIONS PRIOR TO CONSTRUCTION AND/OR FABRICATION.

DIVERSION WEIR PLAN VIEW
 SCALE = 1/4" = 1'-0"



**METROPOLITAN WATER RECLAMATION DISTRICT
 OF GREATER CHICAGO**

CONTRACT 14-253-5FR
 FLOOD CONTROL PROJECT ON
 MIDLOTHIAN CREEK IN ROBBINS, ILLINOIS (RE-BID)
 LITTLE CALUMET RIVER WATERSHED
**137TH AND KEDZIE DIVERSION WEIR
 STRUCTURE**

Designed by: CEE
 Drawn by: CEE
 Date: MAY 2024

Checked by: PMS
 Reviewed by: CLS
 Scale: AS SHOWN

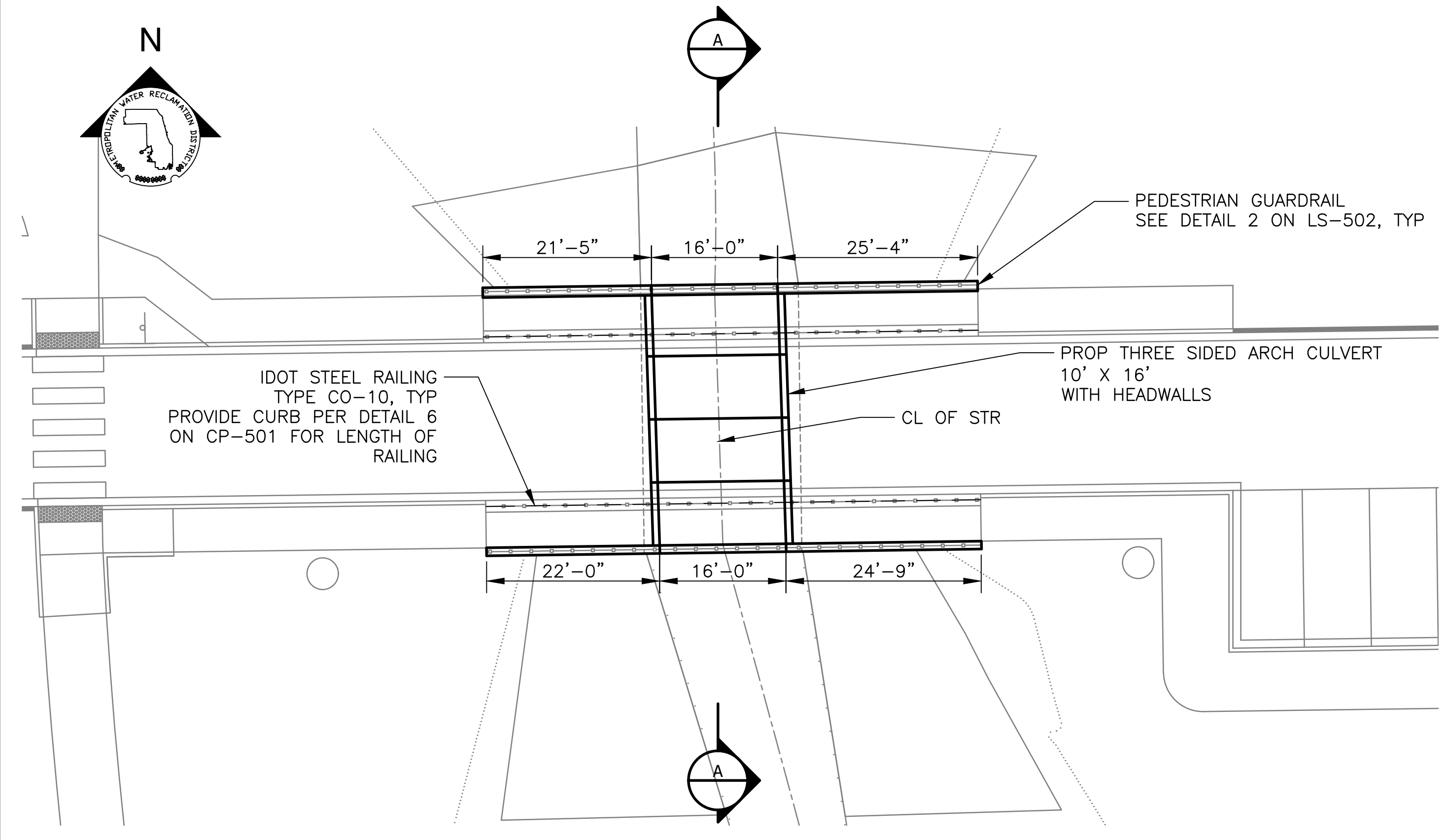
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 ENGINEERS

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 ENGINEERS

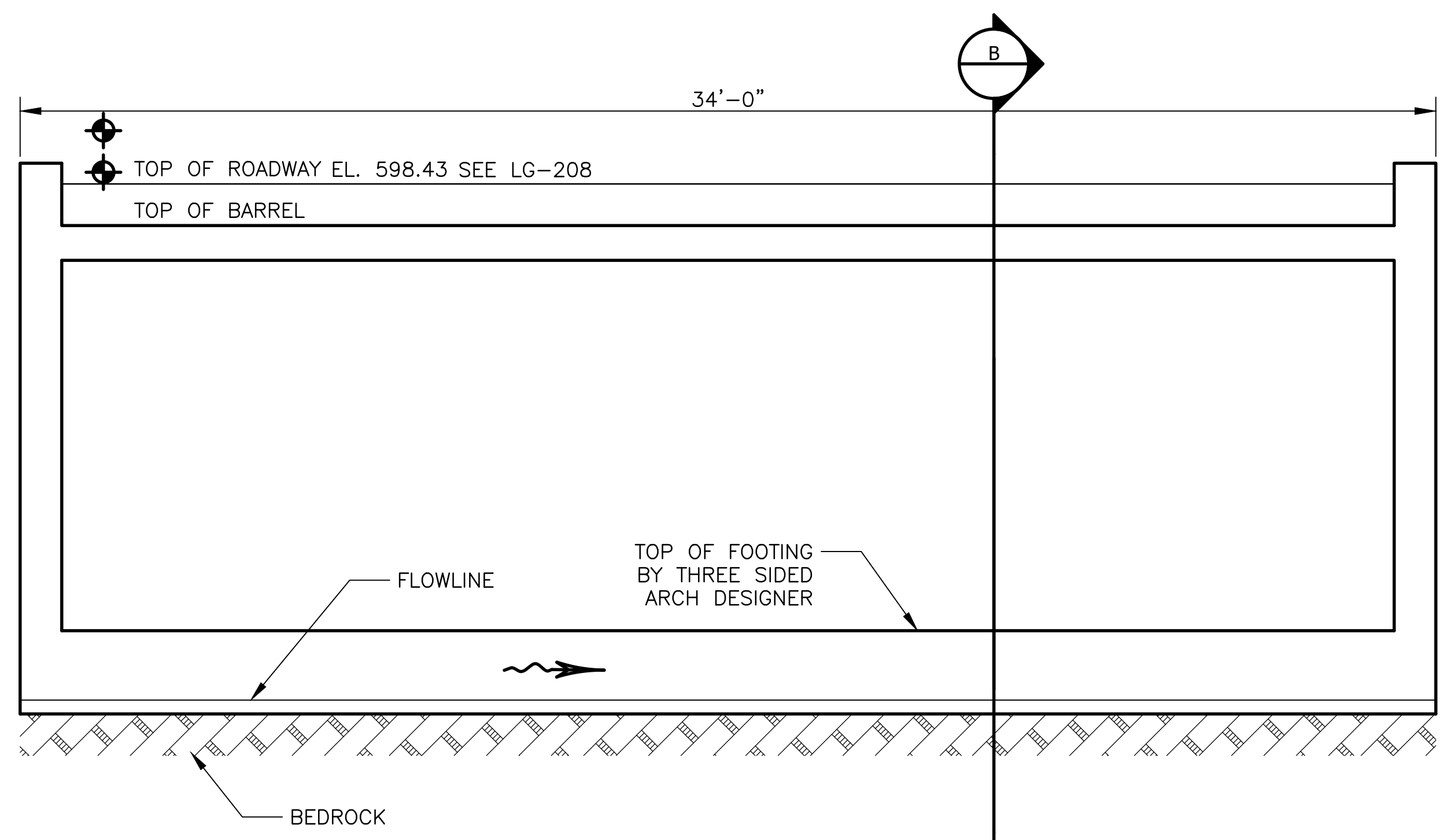
LIVING HABITATS

Rev.	Description	Appr.	Date
1	ISSUE FOR CONSTRUCTION	MLM	08/2024

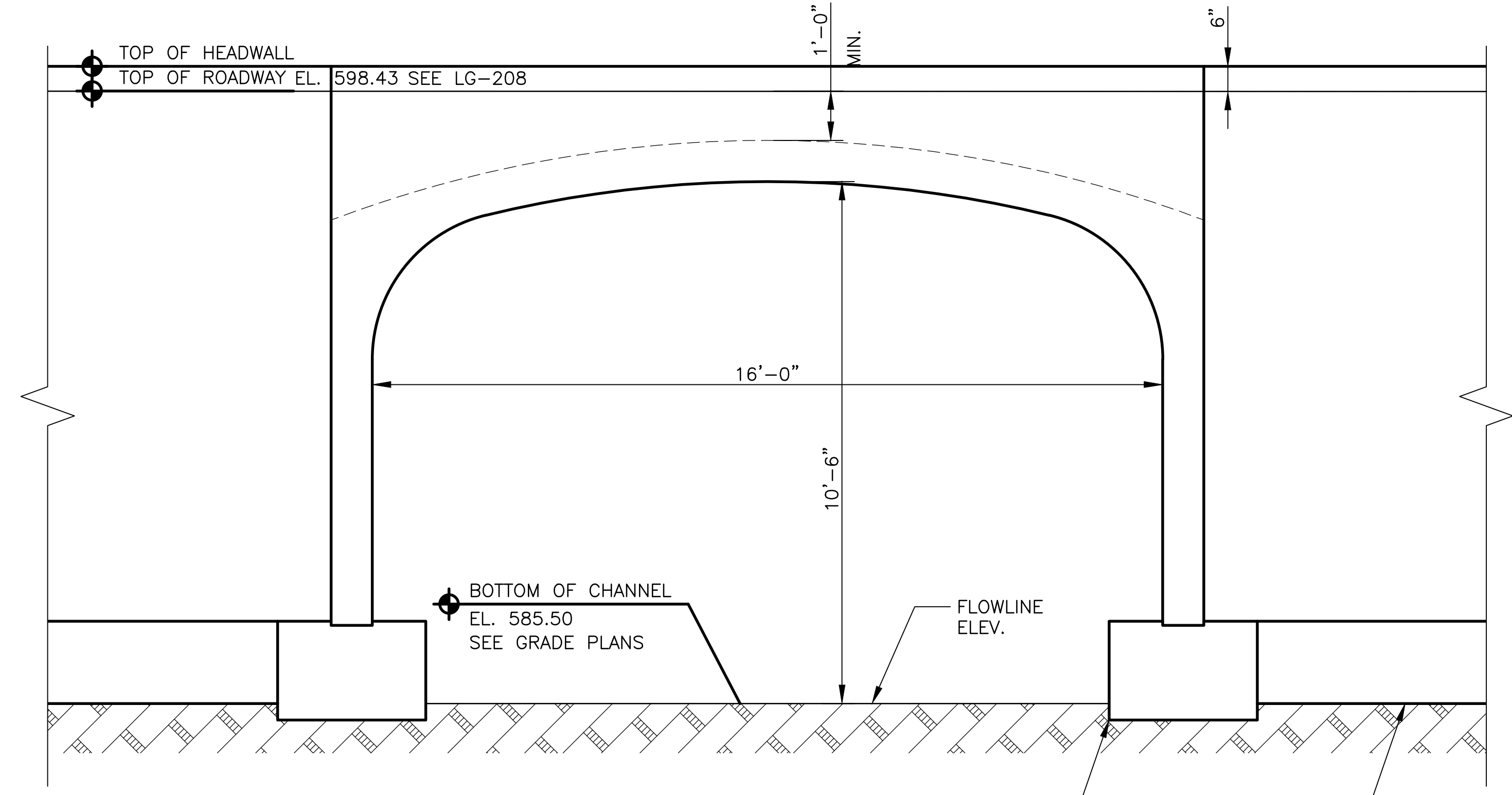
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 P:\13278ch\Drawings\Structural\14-253-3F\Structural\14-253-BF\S-102.dwg 2/16/2024 11:52 AM



PLAN
 SCALE = 1" = 1'-0"
 SCALE: 1" = 1'-0"



SECTION A-A
 SCALE = 3/8" = 1'-0"
 SCALE: 3/8" = 1'-0"



SECTION B-B THRU BARREL
 SCALE = 1/2" = 1'-0"
 SCALE: 1/2" = 1'-0"

GENERAL NOTES:

- DESIGN, FABRICATION, AND DELIVERY OF THE THREE SIDED ARCH AND FOUNDATION SHALL BE IN ACCORDANCE WITH SPECIFICATION 03 40 00.
- AREA OF CLEAR OPENING OF CULVERT IS 156.3 SQFT.
- CONTRACTOR TO FIELD VERIFY EXISTING CONDITIONS, DIMENSIONS, AND ELEVATIONS PRIOR TO CONSTRUCTION AND/OR FABRICATION.
- THREE SIDED ARCH DESIGN PARAMETERS:
 SOIL UNIT WEIGHT: 125 PCF
 K_o: 40 PCF/FT
 COEFFICIENT OF FRICTION: 0.70
 LIVE LOAD SURCHARGE: TRAFFIC
 ALLOWABLE BEARING PRESSURE: 50,000 PSF
 MINIMUM FACTOR OF SAFETY: 1.5

Rev.	Description	Appr.	Date
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METROPOLITAN WATER RECLAMATION DISTRICT
 OF GREATER CHICAGO

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 CEE
 Drawn by: CEE
 Date: MAY 2024

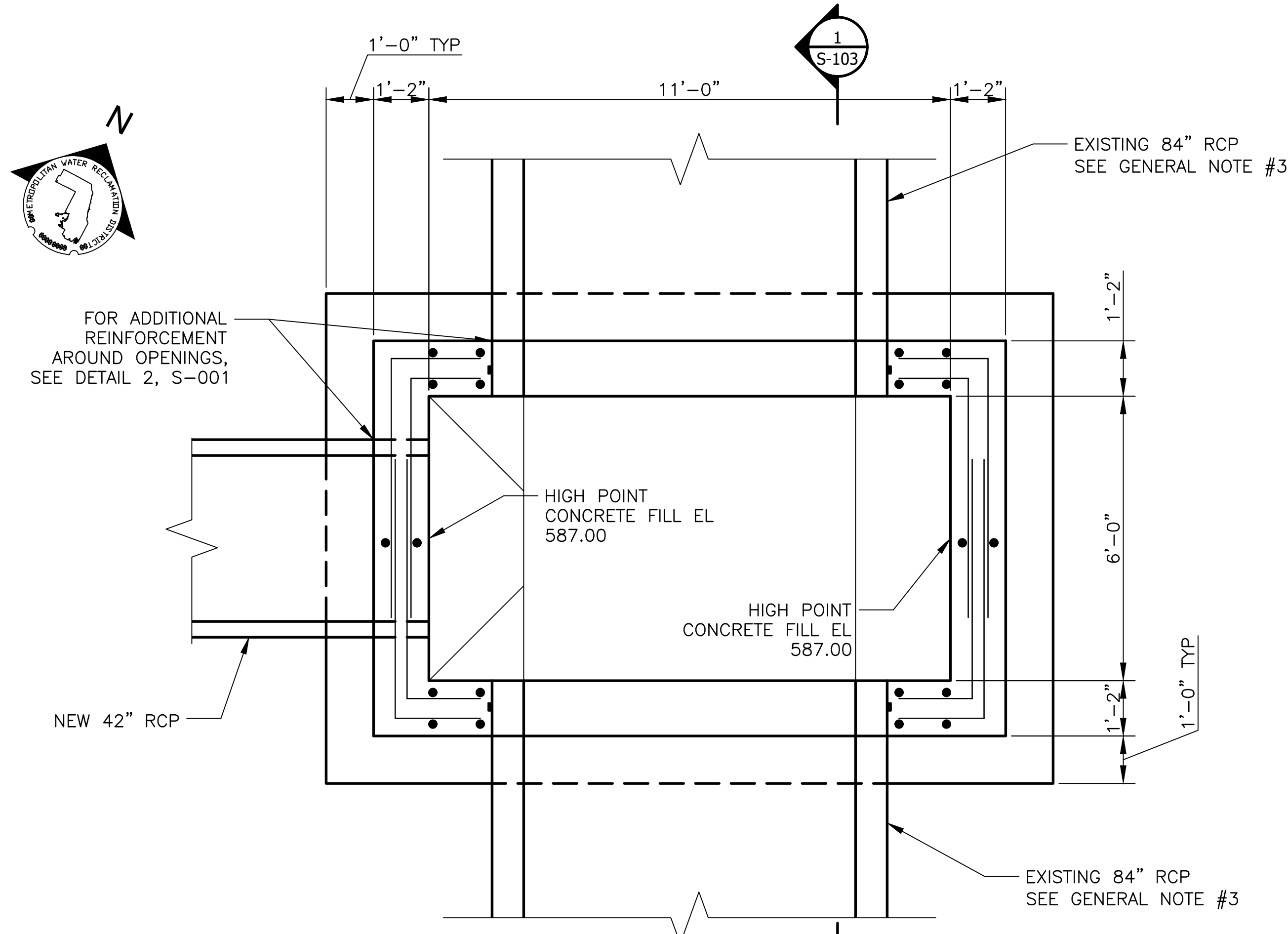
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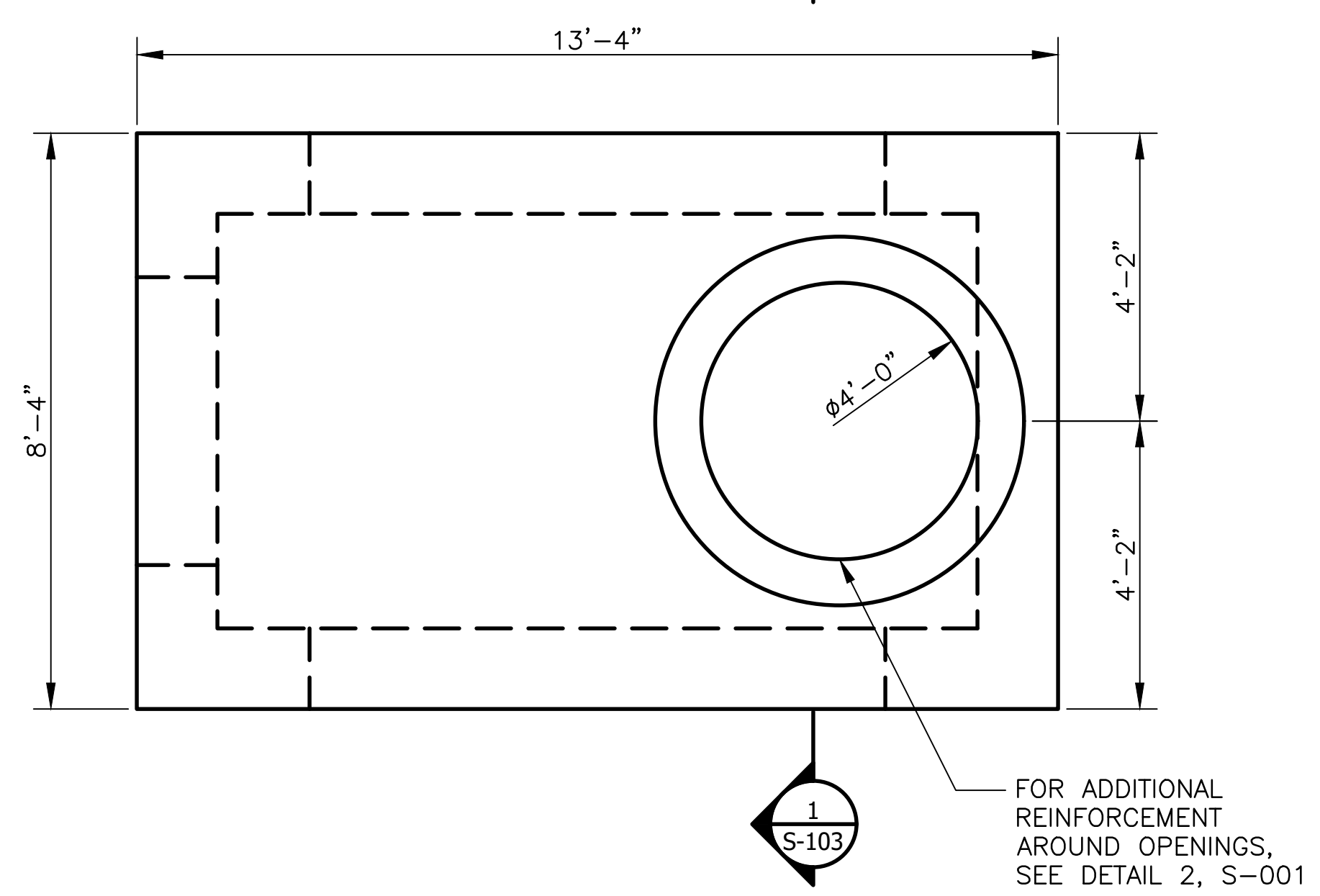
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 CONSULTING ENGINEERS

LIVING HABITATS

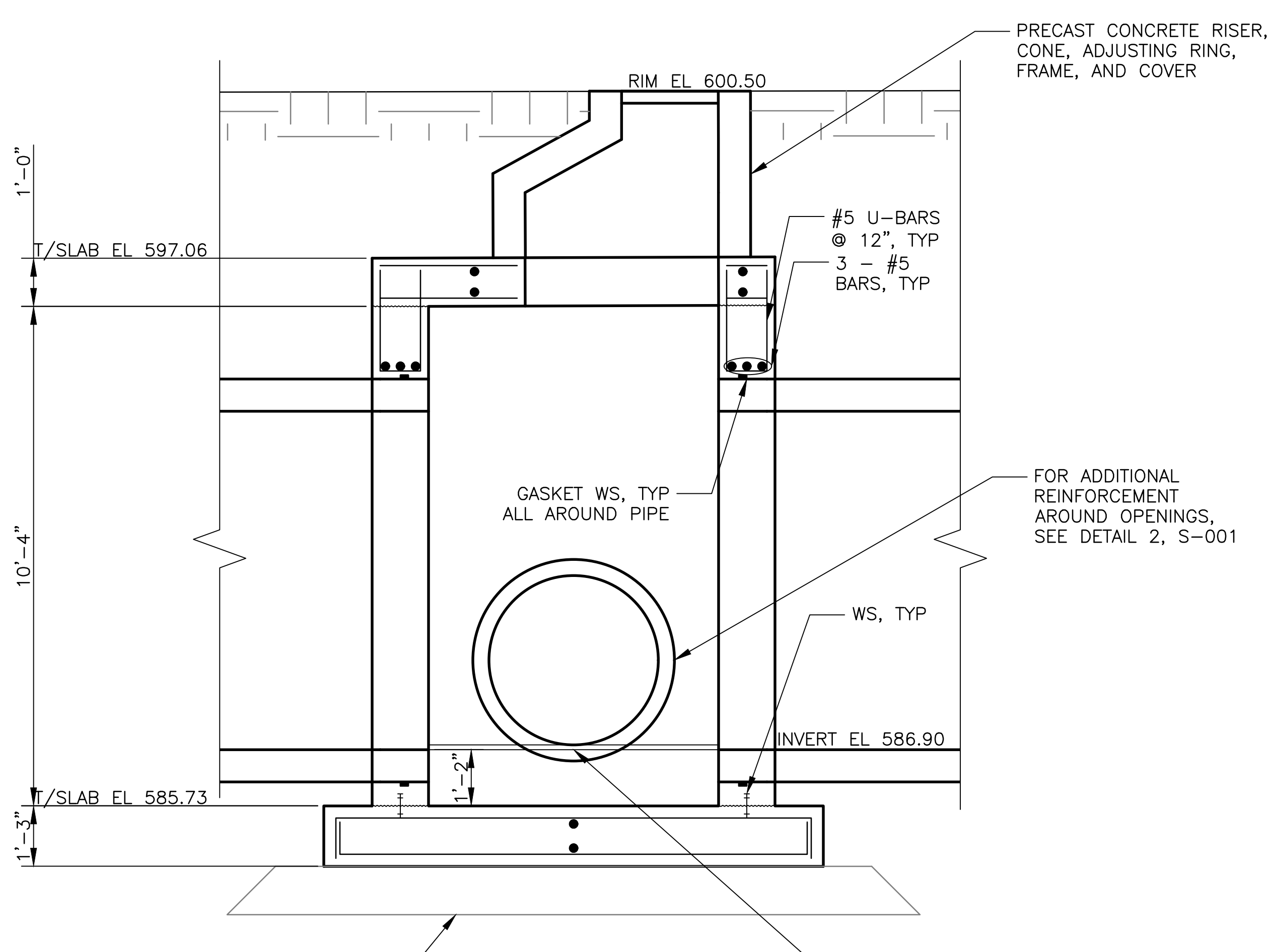
CONTRACT 14-253-5FR
 FLOOD CONTROL PROJECT ON
 MIDLOTHIAN CREEK IN ROBBINS, ILLINOIS (RE-BID)
 LITTLE CALUMET RIVER WATERSHED
 STORMWATER PARK ACCESS
 BRIDGE DETAILS



LOWER PLAN
SCALE = 1/2" = 1'-0"
1 0 1 2 3 4 5
SCALE: 1/2" = 1'-0"



UPPER PLAN
SCALE = 1/2" = 1'-0"
1 0 1 2 3 4 5
SCALE: 1/2" = 1'-0"



SECTION 1
SCALE = 1/2" = 1'-0"
1 0 1 2 3 4 5
SCALE: 1/2" = 1'-0"

- GENERAL NOTES:**
- ALL REINFORCEMENT SHOWN IS #5@12" UNLESS NOTED OTHERWISE.
 - CONTRACTOR TO FIELD VERIFY EXISTING CONDITIONS, DIMENSIONS, AND ELEVATIONS PRIOR TO CONSTRUCTION AND/OR FABRICATION.
 - REMOVE PIPE WITHIN THE CONCRETE JUNCTION BOX AFTER THE BOTTOM SLAB AND WALLS HAVE CURED.
 - JUNCTION VAULT DESIGN PARAMETERS
SOIL UNIT WEIGHT: 125 PCF
LATERAL EARTH PRESSURE: 125 PCF/FT
LIVE LOAD SURCHARGE: 300 PSF
ALLOWABLE BEARING PRESSURE: 2,000 PSF
MINIMUM FACTOR OF SAFETY: 1.5

Rev.	Description	Appr.	Date
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METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

Checked by: PMS
Designed by: CEE
Drawn by: CEE
Date: MAY 2024

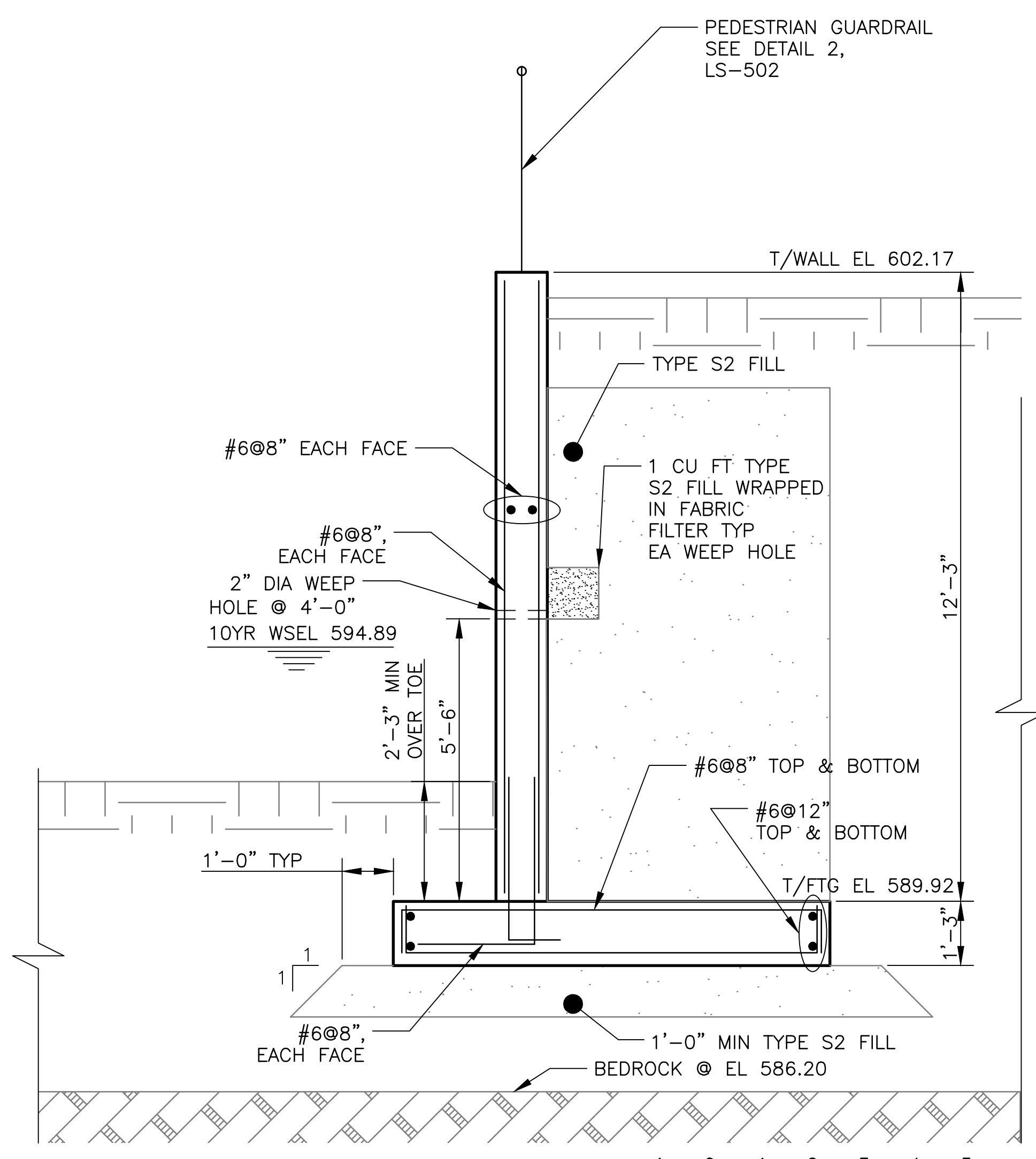
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Scale: AS SHOWN

DONOHUE CONSULTANTS, INC.
CONSULTING ENGINEERS

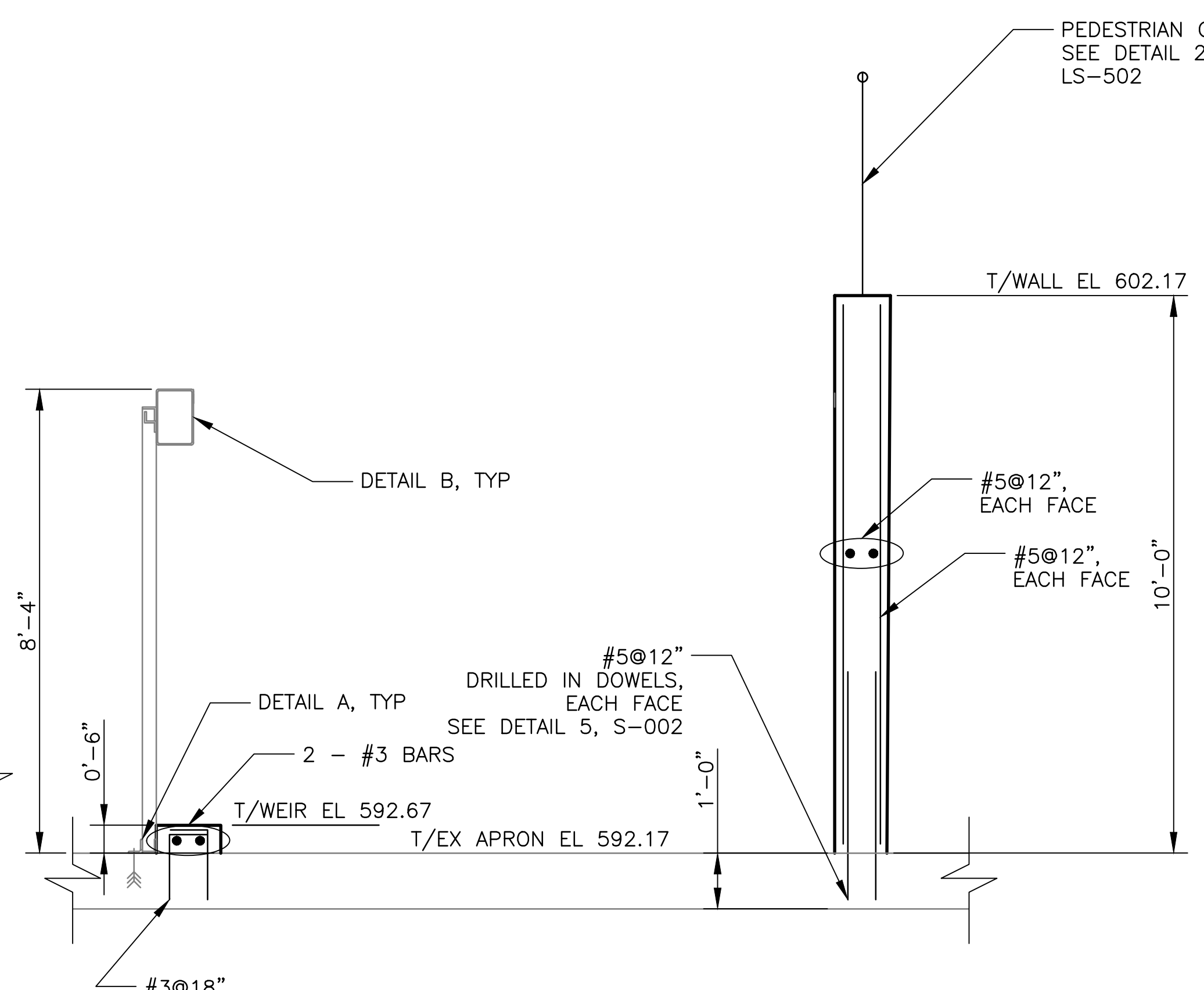
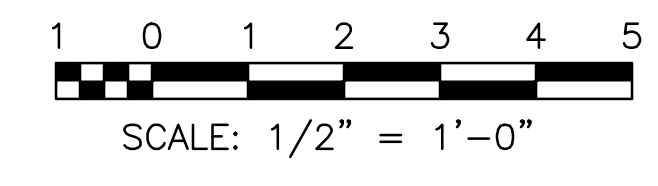
Accurate CONSULTANTS, INC.
CONSULTING ENGINEERS

LIVING HABITATS

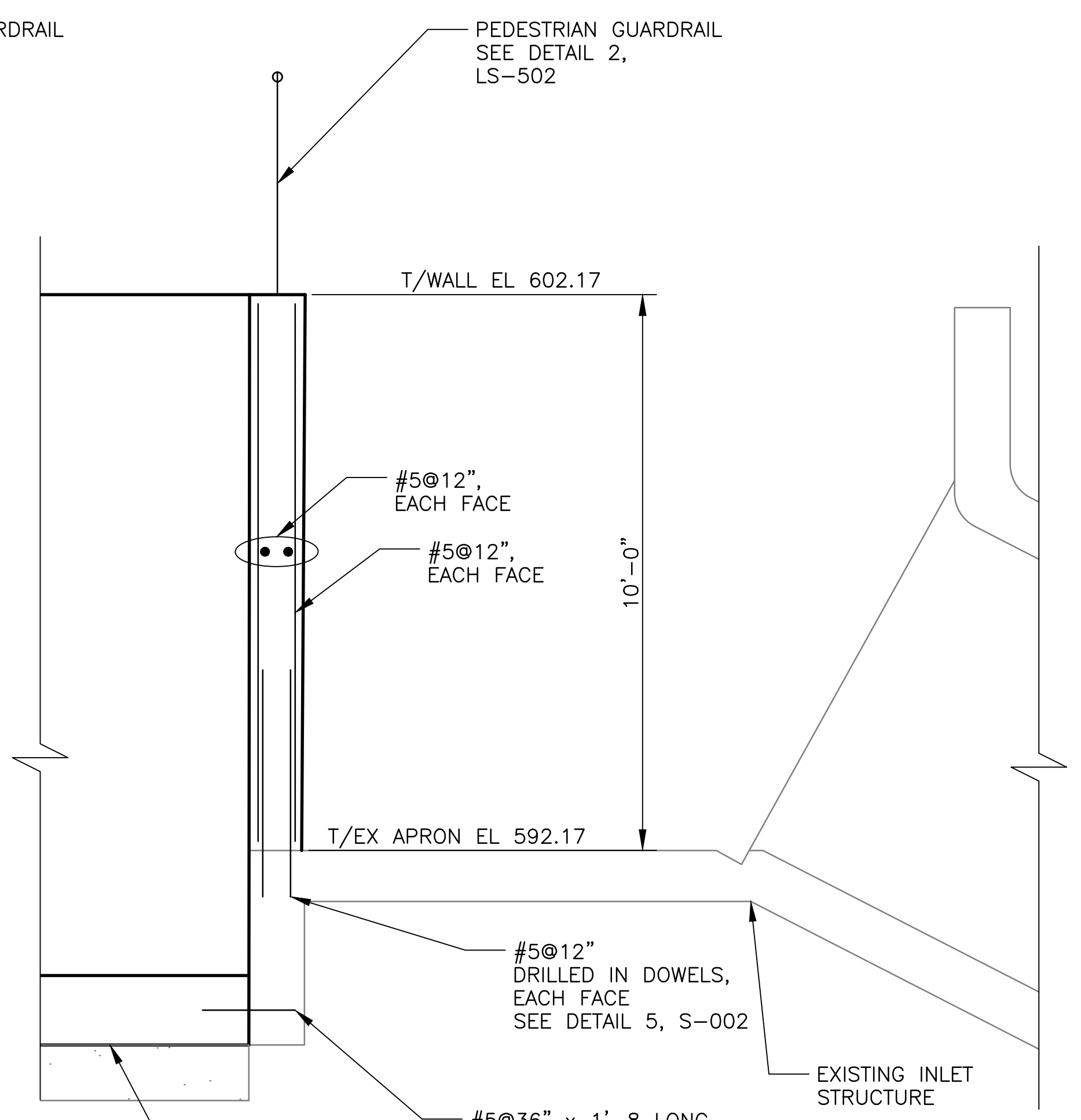
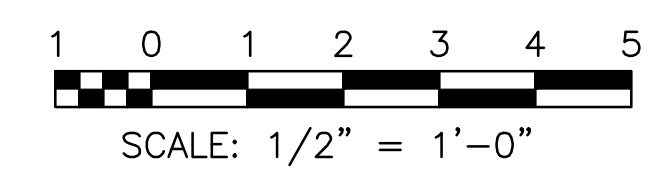
CONTRACT 14-253-5FR
FLOOD CONTROL PROJECT ON
MIDLOTHIAN CREEK IN ROBBINS, ILLINOIS (RE-BID)
LITTLE CALUMET RIVER WATERSHED
84-INCH STORM SEWER JUNCTION VAULT



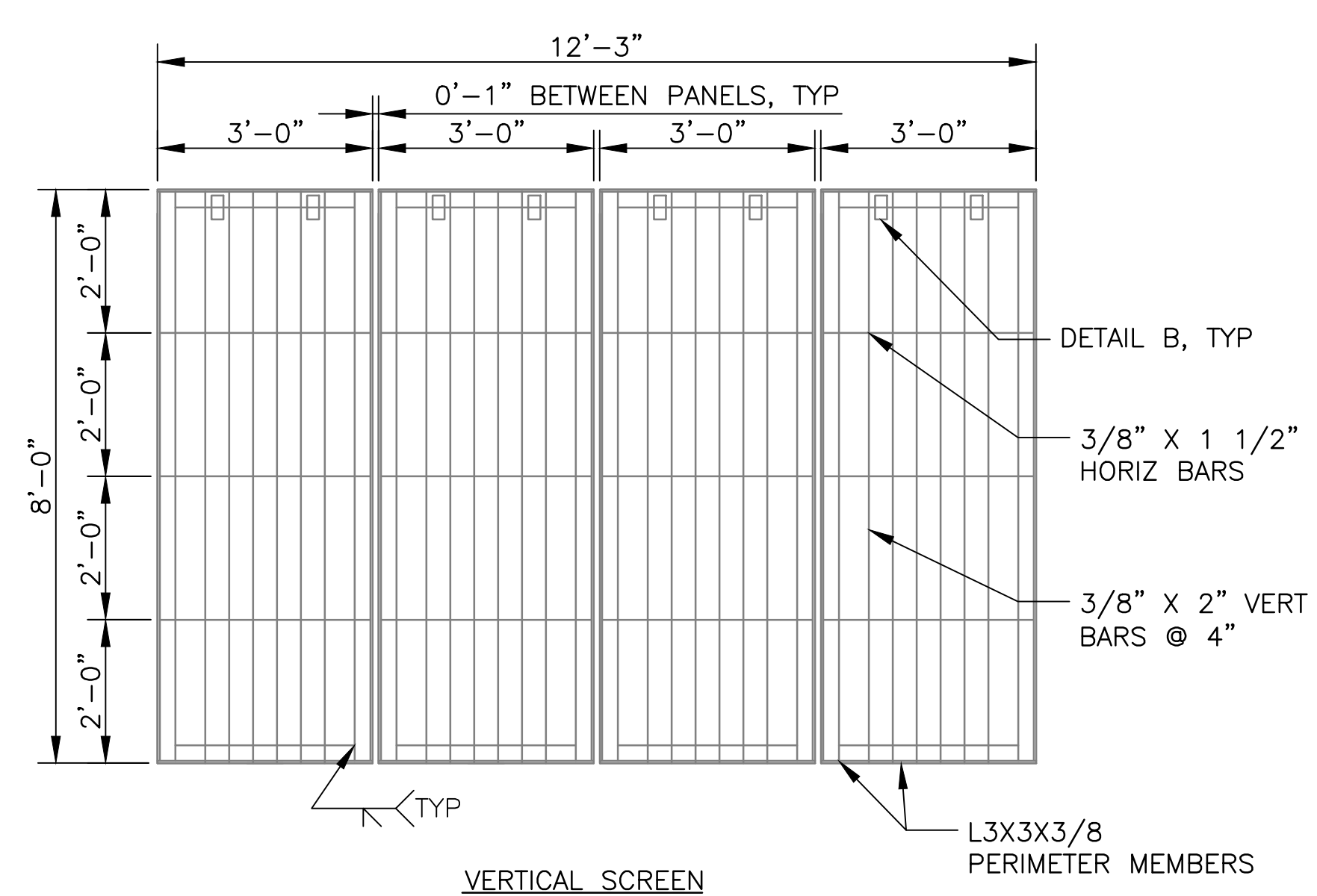
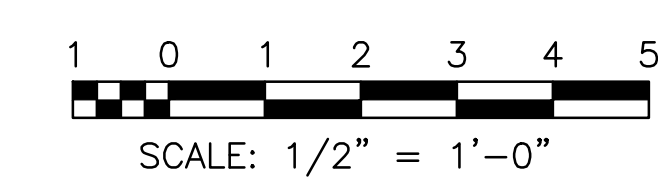
SECTION 1
SCALE = 1/2" = 1'-0"
(S-101)



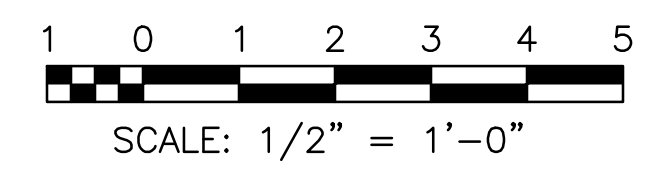
SECTION 2
SCALE = 1/2" = 1'-0"
(S-101)



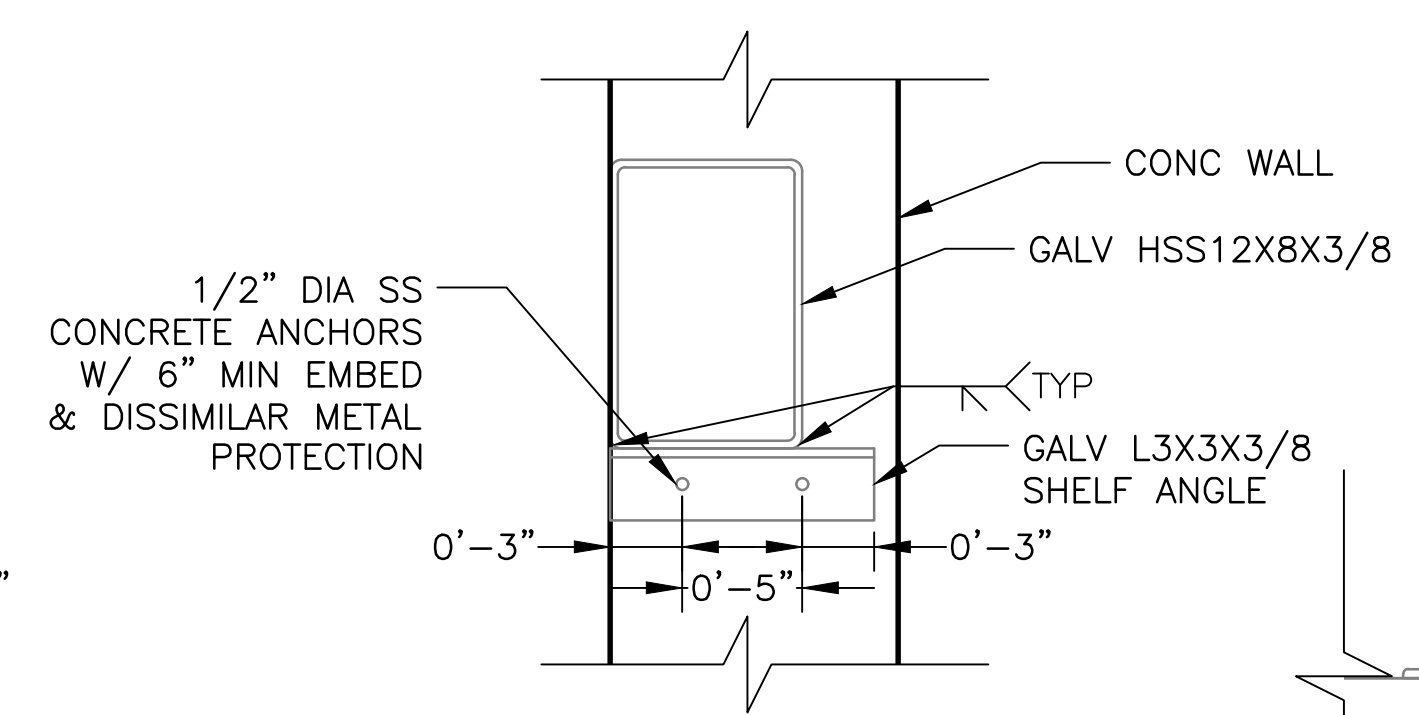
SECTION 3
SCALE = 1/2" = 1'-0"
(S-101)



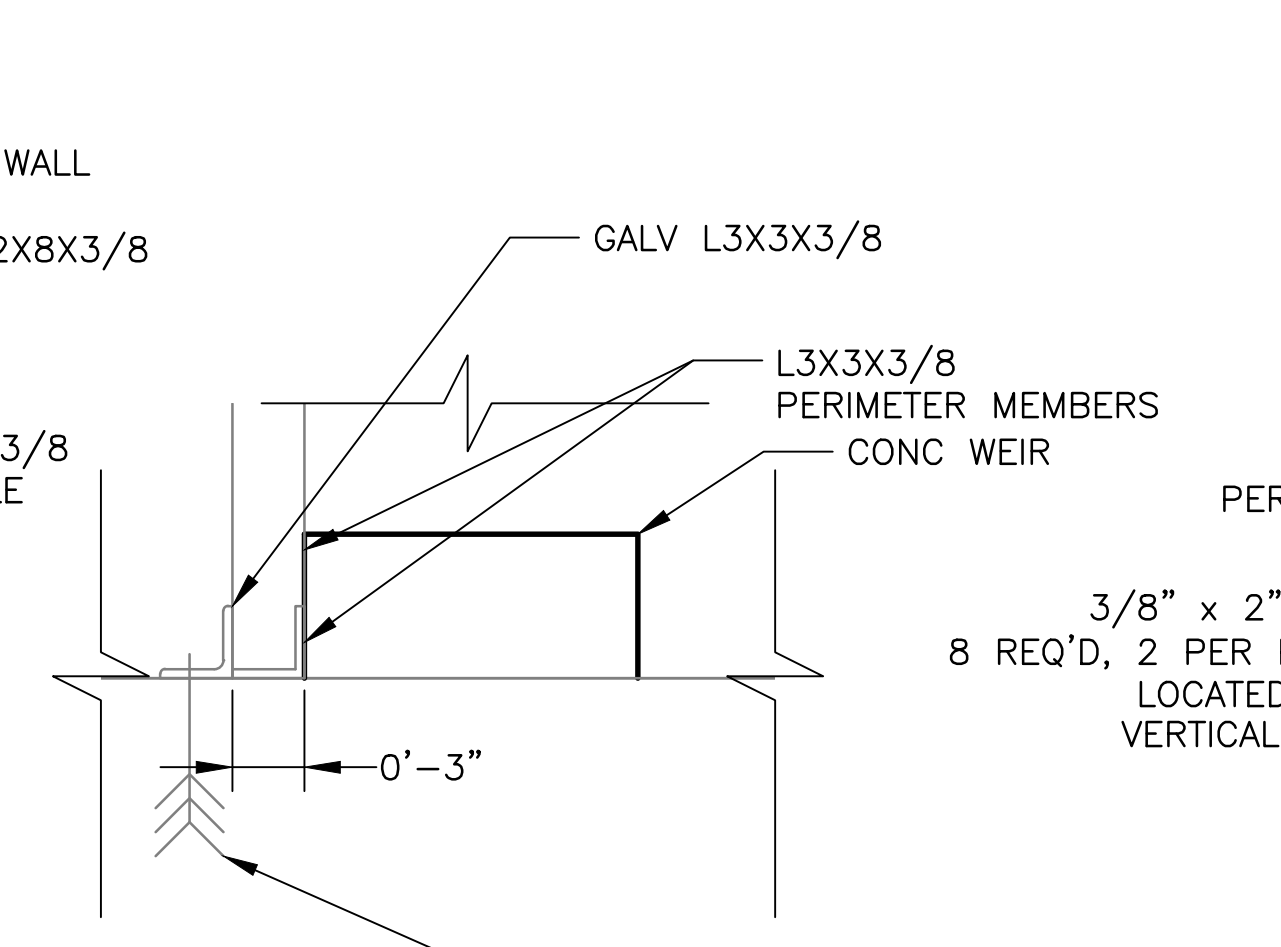
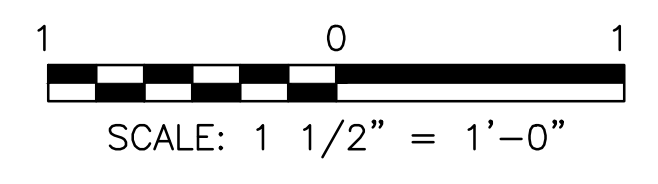
DETAIL 1
SCALE = 1/2" = 1'-0"
(S-101)



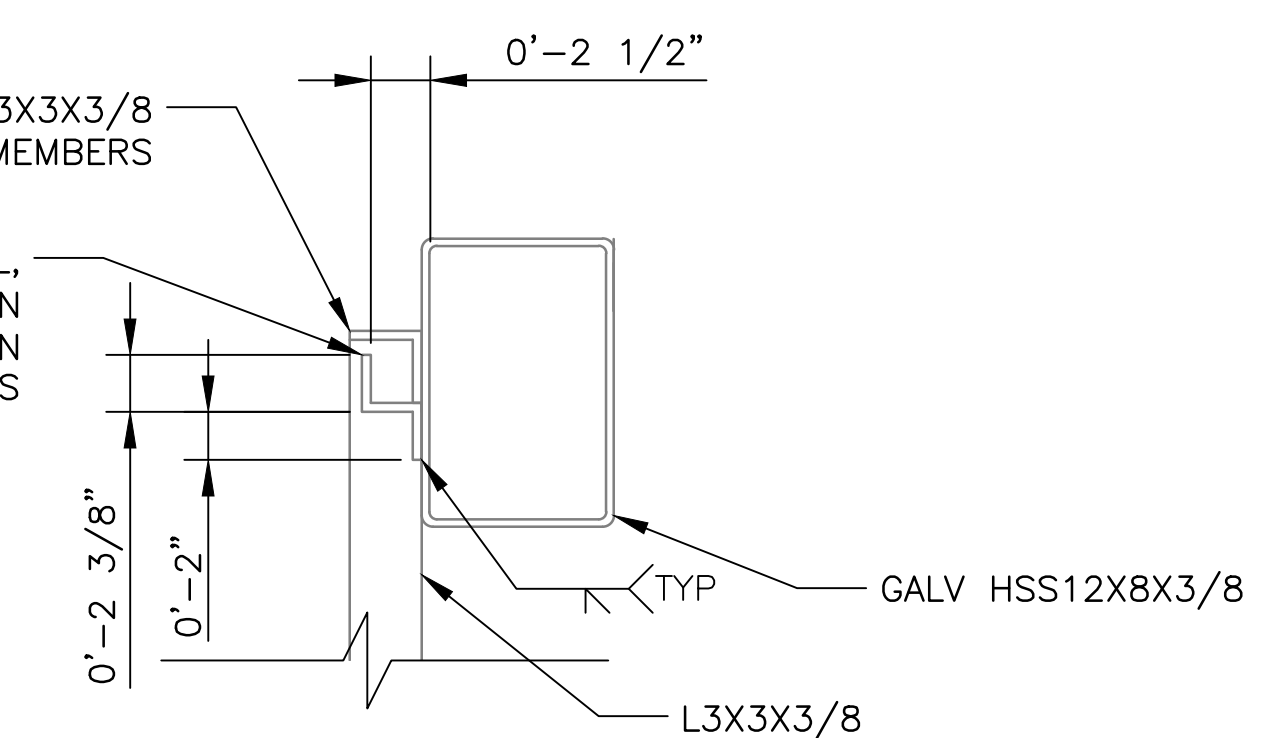
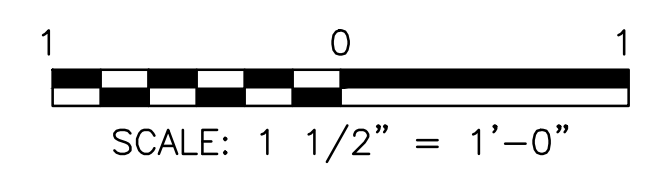
1. ALL STRUCTURAL STEEL SHALL BE GALVANIZED AFTER FABRICATION.
2. ALL HARDWARE SHALL BE STAINLESS STEEL UNLESS NOTED OTHERWISE.
3. WELDING SHALL BE DONE BEFORE GALVANIZING.
4. ALL WELDING SHALL BE CONTINUOUS UNLESS NOTED OTHERWISE.
5. VERTICAL SCREEN IS DESIGNED FOR 3'-6" OF DIFFERENTIAL PRESSURE.



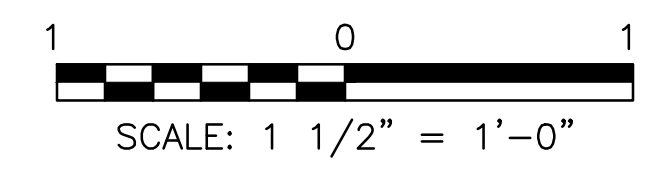
DETAIL 2
SCALE = 1 1/2" = 1'-0"
(S-101)



DETAIL A
SCALE = 1 1/2" = 1'-0"
(S-501)



DETAIL B
SCALE = 1 1/2" = 1'-0"
(S-501)



Rev.	Description	Appr.	Date
1	ISSUE FOR CONSTRUCTION	MLM	08/2024

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

CONTRACT 14-253-5FR
FLOOD CONTROL PROJECT ON
MIDLOTHIAN CREEK IN ROBBINS, ILLINOIS (RE-BID)
LITTLE CALUMET RIVER WATERSHED

STRUCTURAL DETAILS

Designed by: CEE
Checked by: PMS
Drawn by: CEE
Reviewed by: CLS
Date: MAY 2024
Scale: AS SHOWN

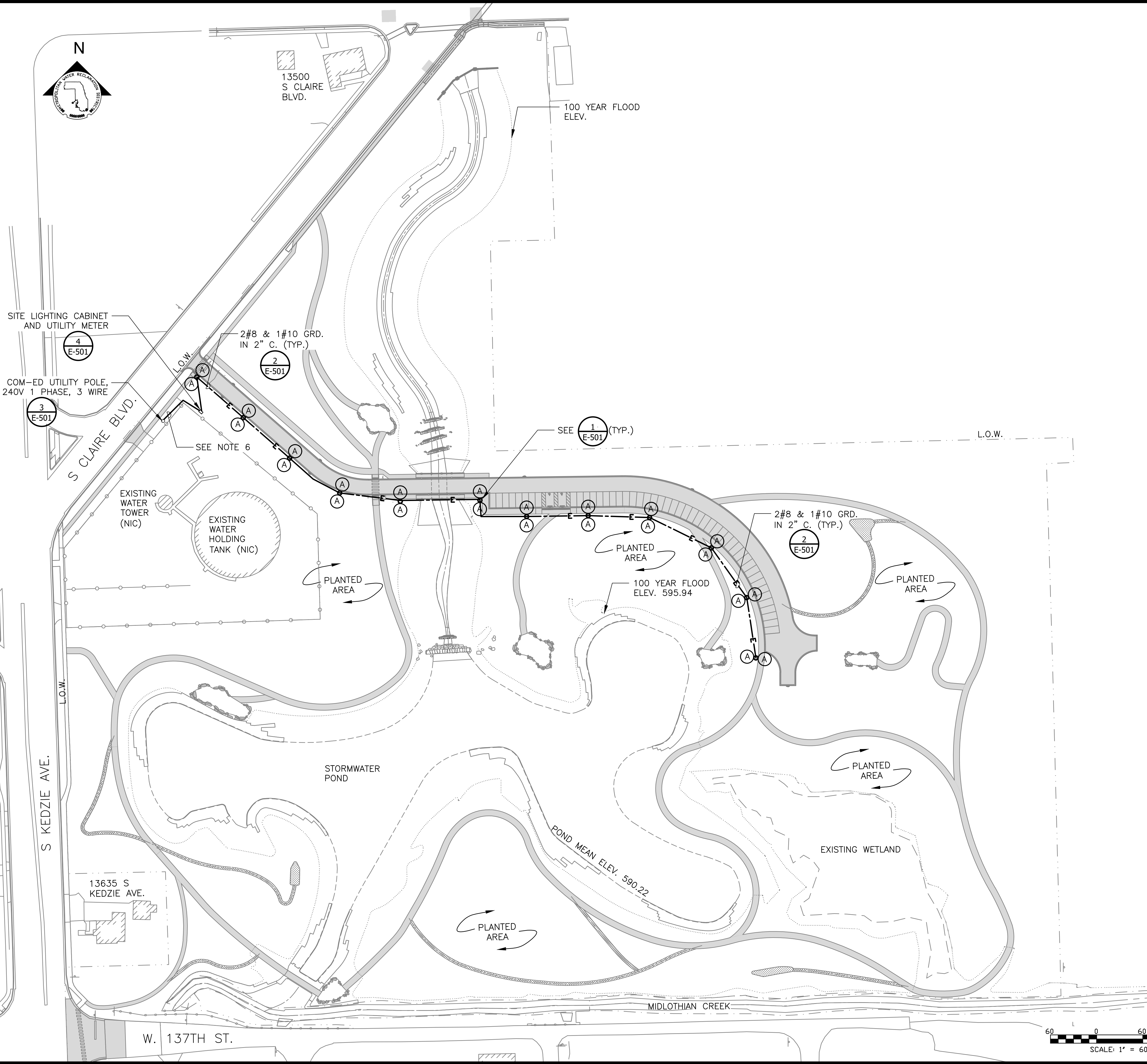
DONOHUE
Accurate
O'Brien & Associates, Inc.
CONSULTING ENGINEERS

LIVING HABITATS

CONTRACT 14-253-5FR
FLOOD CONTROL PROJECT ON
MIDLOTHIAN CREEK IN ROBBINS, ILLINOIS (RE-BID)
LITTLE CALUMET RIVER WATERSHED

STRUCTURAL DETAILS

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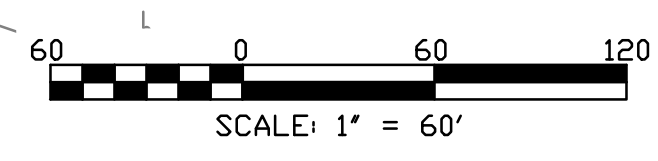


LEGEND:

- L.O.W. --- LIMIT OF WORK
- WOUS --- WATERS OF UNITED STATES
- CHANNEL MEAN ELEV.
- 100 YR FLOOD ELEV.
- [Hatched Box] MOWN TURF PATHS/LANDINGS
- [Solid Grey Box] PAVED PATHS
- [Solid Grey Box] ROADWAYS
- E --- UNDERGROUND CONDUIT
- (A) POLE MOUNTED LIGHT FIXTURES
SEE FIXTURE SCHEDULE ON E-501

GENERAL NOTES:

1. REFER TO DRAWING LS-203 FOR LIGHT POLE COORDINATES
2. NEW CONDUITS INSTALLED UNDERGROUND SHALL BE DIRECT BURIED REINFORCED THERMOSETTING RESIN CONDUIT (RTRC). CONDUITS STUBBING UP OUT OF GROUND SHALL BE RTRC.
3. SEE SECTION 26 05 33.13 FOR SITE LIGHTING CABINET COMPONENTS.
4. FIXTURES SHALL OPERATE ON 240V SINGLE PHASE POWER. SEE SHEET E-501 FOR FIXTURE SCHEDULE.
5. LIGHTPOLES SHALL BE PLACED WITH 2 FT MINIMUM CLEARANCE FROM PAVEMENT.
6. INSTALL 3#3 & 1#8 GRD. IN 2" C. FROM SITE LIGHTING CABINET/UTILITY METER TO EXISTING COM-ED UTILITY POLE. STUB-UP CONDUIT 1' ABOVE GRADE AT UTILITY POLE AND COIL AN ADDITIONAL 40' OF CABLE FOR COM-ED USE. COORDINATE WITH COM-ED FOR FINAL CONNECTION.



Rev.	Description	Appr.	Date
	ISSUE FOR CONSTRUCTION	MLM	08/2024

**METROPOLITAN WATER RECLAMATION DISTRICT
OF GREATER CHICAGO**

Designed by:
FGM

Checked by:
PMS

Drawn by:
FGM

Reviewed by:
JTB

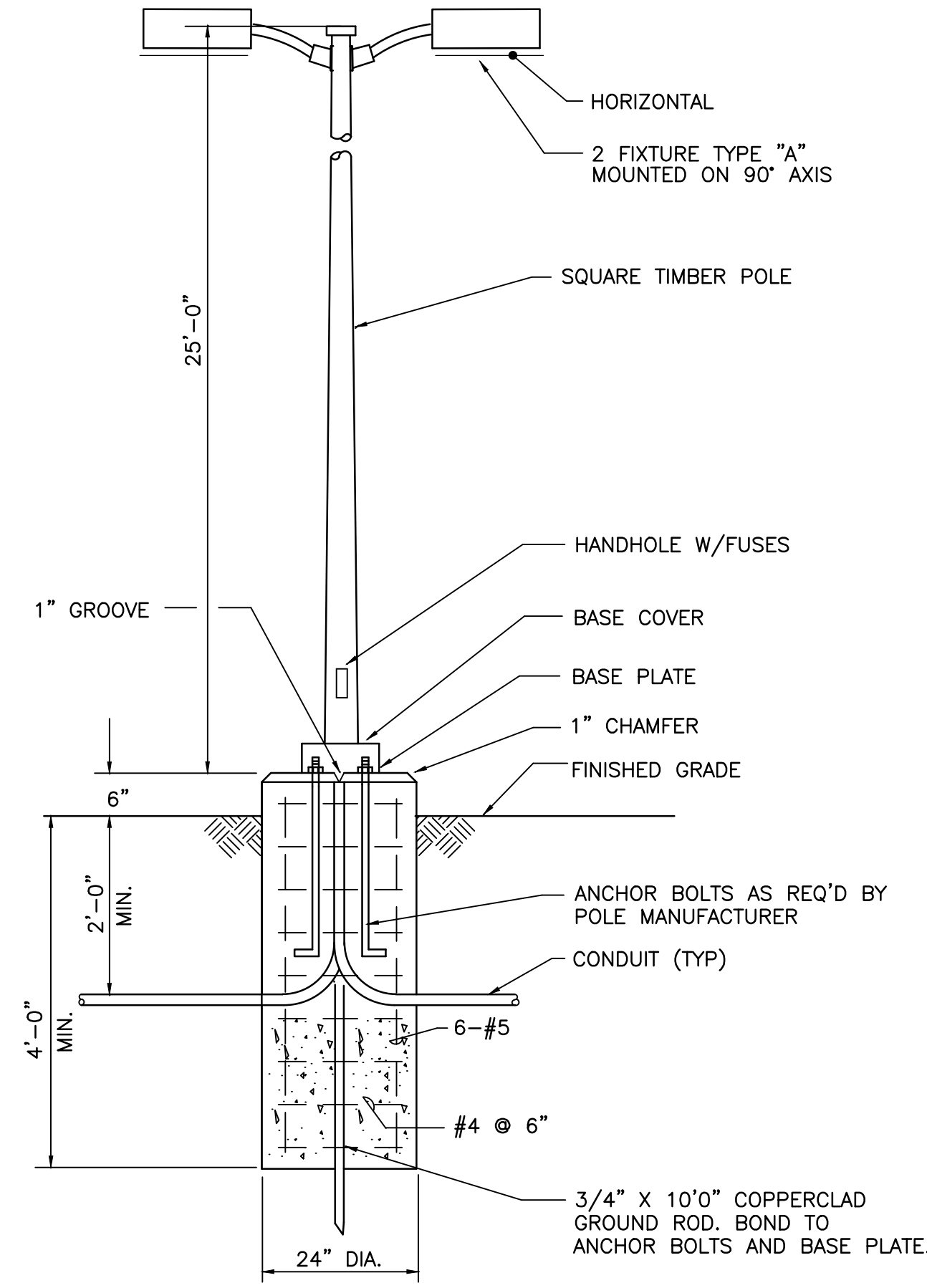
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MAY 2024

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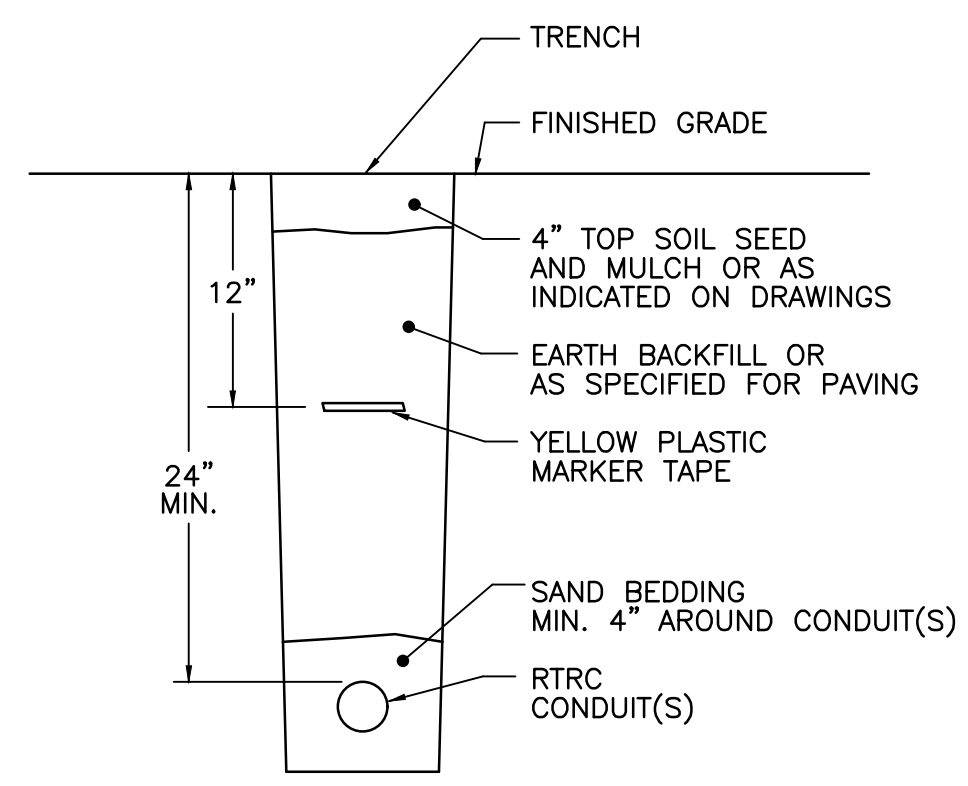
CONTRACT 14-253-5FR
 FLOOD CONTROL PROJECT ON
 MIDLOTHIAN CREEK IN ROBBINS, ILLINOIS (RE-BID)
 LITTLE CALUMET RIVER WATERSHED
**SITE LIGHTING PLAN -
 STORMWATER PARK**

Sheet Number:
E-201
 Page Number: 191

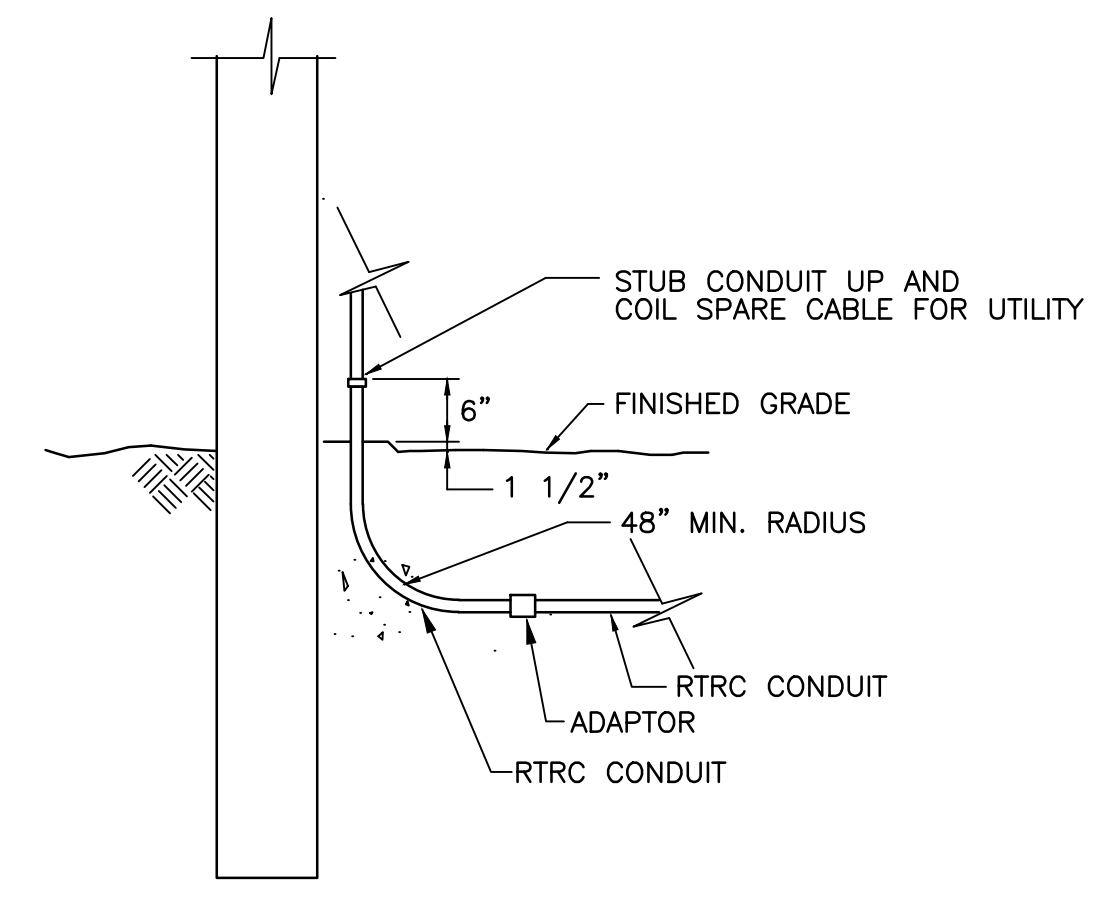
FIXTURE SCHEDULE					
TYPE	DESCRIPTION	LUMENS (LM)	MANUFACTURER	CATALOG NUMBER	REMARKS
A	ARM MOUNTED, POLE MOUNTED LED FIXTURE, 240V	5,000LM	LITHONIA OR APPROVED EQUAL	RAD1 LED P2 27K PATH 240 SPA	25' POLE, POST TOP MOUNTED, TWIN CONFIGURATION
POLES	GL28H GLUED-LAMINATED TIMBER POLE, SQUARE.	25'	VALMONT OR APPROVED EQUAL	VALMONT STAINTON - RUKA	



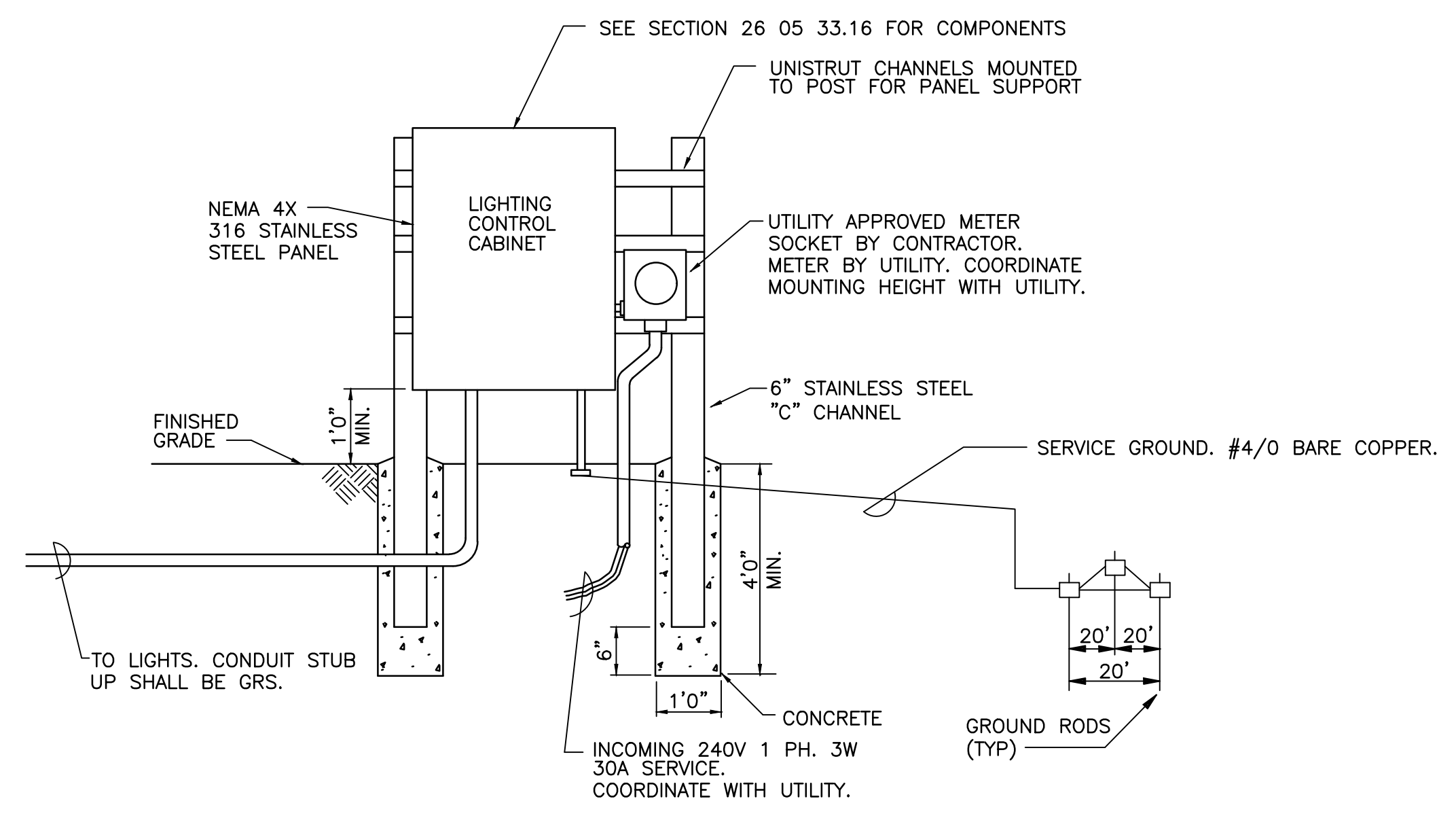
1 AREA LIGHTING POLE AND BASE DETAIL
Scale: NTS



2 UNDERGROUND CONDUIT DETAIL
Scale: NTS



3 CONDUIT STUB UP DETAIL
Scale: NTS



4 LIGHTING CABINET DETAIL
Scale: NTS

Rev.	Description	Appr.	Date
	ISSUE FOR CONSTRUCTION	MLM	08/2024

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

Designed by: FGM
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Date: MAY 2024
Scale: AS SHOWN

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CONSULTING ENGINEERS

LIVING HABITATS

CONTRACT 14-253-5FR
FLOOD CONTROL PROJECT ON
MIDLOTHIAN CREEK IN ROBBINS, ILLINOIS (RE-BID)
LITTLE CALUMET RIVER WATERSHED

ELECTRICAL DETAILS

County	Fiscal Year	Sheet No.	Total Sheets
053	1979	1	27

Section 053-1213.01 M.F.T.

INDEX OF SHEETS

SHEET NO.	DESCRIPTION
1	COVER SHEET
2	SUMMARY OF QUANTITIES
	GENERAL NOTES
3	ALIGNMENT AND TIES
4-5	PLAN AND PROFILE, DRAINAGE AND UTILITIES
6-8	CROSS SECTIONS
9	GENERAL PLAN - MIDLOTHIAN CREEK CULVERT
10	CHANNEL DETAILS - 137TH ST PAVING DETAIL
11	CULVERT DETAILS
12	CULVERT AND SLOPE TAPERED INLET DETAILS
13	GABION DETAILS
14	SLOPE TAPERED INLET DETAILS
15	SLOPE TAPERED INLET GRATING DETAILS
16	REINFORCEMENT BAR SCHEDULE
17	HEADWALL DETAILS
18	CHAIN LINK FENCE DETAILS AND NAME PLATE
19	FLAT SLAB TOP
	MANHOLE - PRECAST T
20	CATCH BASIN - TYPE A2
	BEDDING DETAIL - STORM SEWERS
21	FRAME AND LID TYPE I
	GRATE - TYPE B
	STORM SEWER CONNECTIONS
	FIELD JOINT
22-27	STANDARD DESIGN TRAFFIC CONTROL DEVICES

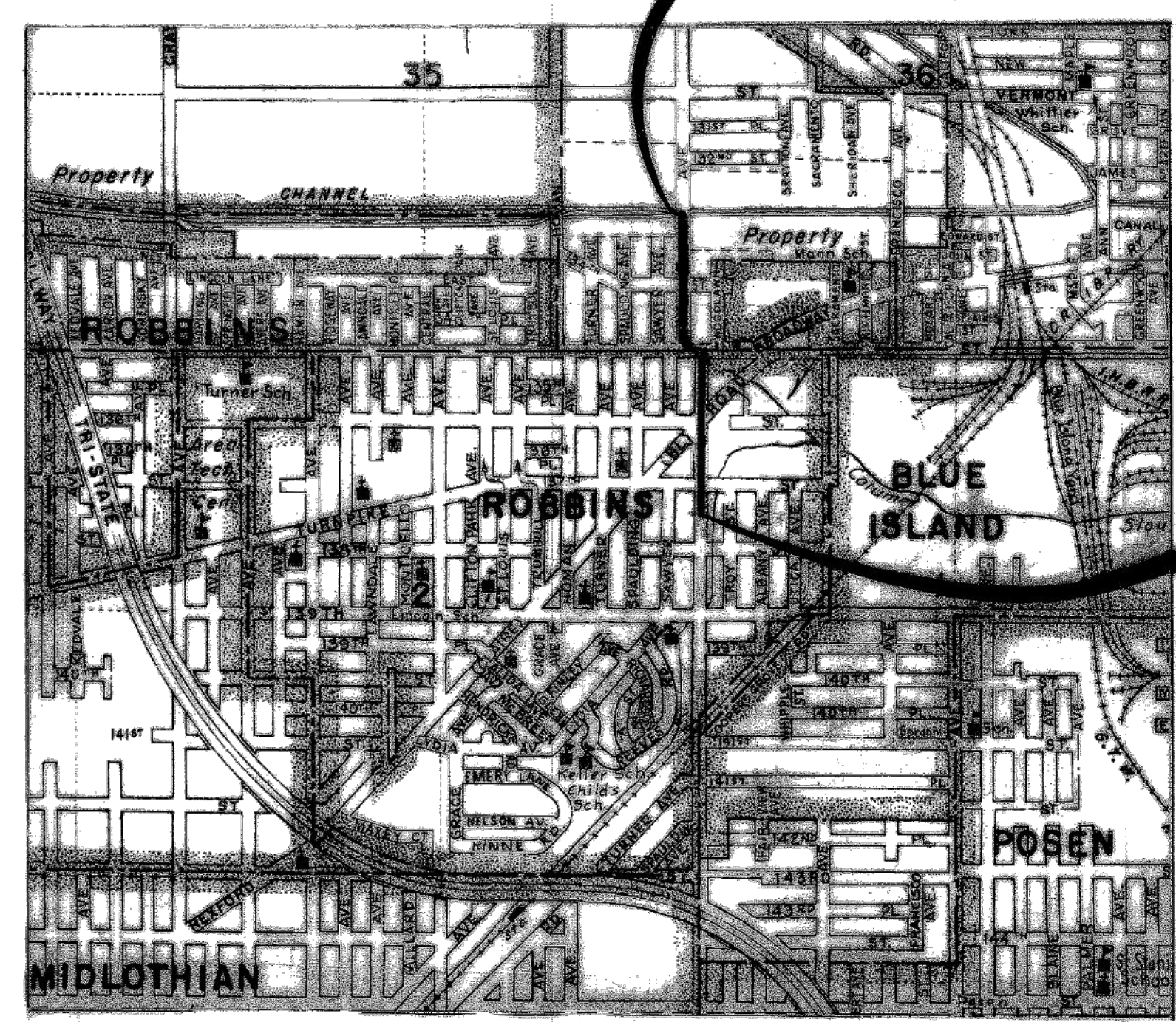
STATE OF ILLINOIS
COUNTY OF COOK
DEPARTMENT OF HIGHWAYS



**PLANS FOR PROPOSED
COUNTY HIGHWAY
KEDZIE AVENUE-MAIN DRAIN**
139 TH. STREET TO CALUMET-SAG CHANNEL
COUNTY HIGHWAY 053 SECTION 053-1213.01-M.F.T.
(M.F.T. 77-10407-00-SS)

CONTRACT FOR SECTION 053-1213.01 M.F.T.
ENDS AT STATION 129 + 26

CONTRACT FOR SECTION 053-1213.01 M.F.T.
BEGINS AT STATION 100 + 00



NET LENGTH 2926 LIN FT. = .5541 MILES

STANDARD SYMBOLS

PROPOSED GRADE LINE - PROFILE	SECTION TOWNSHIP OR GRANT LINE
GUARD POST (PROPOSED)	CITY OR VILLAGE LIMITS
GUARD RAIL (PROPOSED)	RAILROAD OR UTILITY TRACKS
CENTER LINE OF CONSTRUCTION	RDW OR PROPERTY LINE
CONTRACTION JOINT	SECTION CORNER
LONGITUDINAL JOINT	FENCE (BARBED WIRE)
CONSTRUCTION JOINT	FENCE (NO DISTINCTION)
DIRECTION OF DRAINAGE	GUARD POST (EXISTING)
SUMMIT	GUARD RAIL (EXISTING)
BARBED POINT	MARSH
ELEVATION OF POINT INDICATED	STREAM
EXISTING PIPE, 600 IN. DIAMETER (IN)	TREE (WITH DIAMETER)
PIPE TO BE CONSTRUCTED	FEDE
PIPE TO BE FILLED	TRENCHED WAY
CAST IRON PIPE TO BE CONSTRUCTED	VALVE VAULT - WATER (W) GAS (G)
CAPTIONED TO BE CONSTRUCTED	METER VAULT (DOMESTIC)
CATCH BASIN TO BE FILLED	UTILITY CO. MANHOLE - TEL. (T) POWER (E)
CAST IRON MANHOLE TO BE CONSTRUCTED	HANDHOLE
MANHOLE TO BE FILLED	BUFFALO BOX (DOMESTIC)
MANHOLE TO BE FILLED	FIRE HYDRANT
MANHOLE TO BE FILLED	LIGHT POLE
MANHOLE TO BE FILLED	TRAFFIC SIGNAL (AUTOMATIC)
MANHOLE TO BE FILLED	TRAFFIC SIGN
MANHOLE TO BE FILLED	UTILITY CO. POLE & STREET LIGHT
MANHOLE TO BE FILLED	TELEPHONE POLE
MANHOLE TO BE FILLED	POWER LINE POLE
MANHOLE TO BE FILLED	R.R. CROSSBUCK
MANHOLE TO BE FILLED	R.R. FLASHING LIGHT SIGNALS
MANHOLE TO BE FILLED	R.R. FLASHING LIGHT SIGNALS & GATES
MANHOLE TO BE FILLED	JOINTLY OWNED POLE
MANHOLE TO BE FILLED	TELEPHONE CO. ABOVE GROUND CLOSURE
MANHOLE TO BE FILLED	EXISTING HEADWALL AND CULVERT (LENGTH, SIZE & TYPE)

CONVENTIONAL SIGNALS FOR SHEET NO. 1

COUNTY OF COOK
DEPARTMENT OF HIGHWAYS

APPROVED: *[Signature]* 19 79

APPROVED: *[Signature]* 19 79

APPROVED: *[Signature]* 19 79

CHIEF ENGINEER OF DESIGN

SUPERINTENDENT

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

APPROVED: _____ 19 ____

DISTRICT ENGINEER OF LOCAL ROADS AND STREETS

APPROVED: _____ 19 ____

DISTRICT ENGINEER

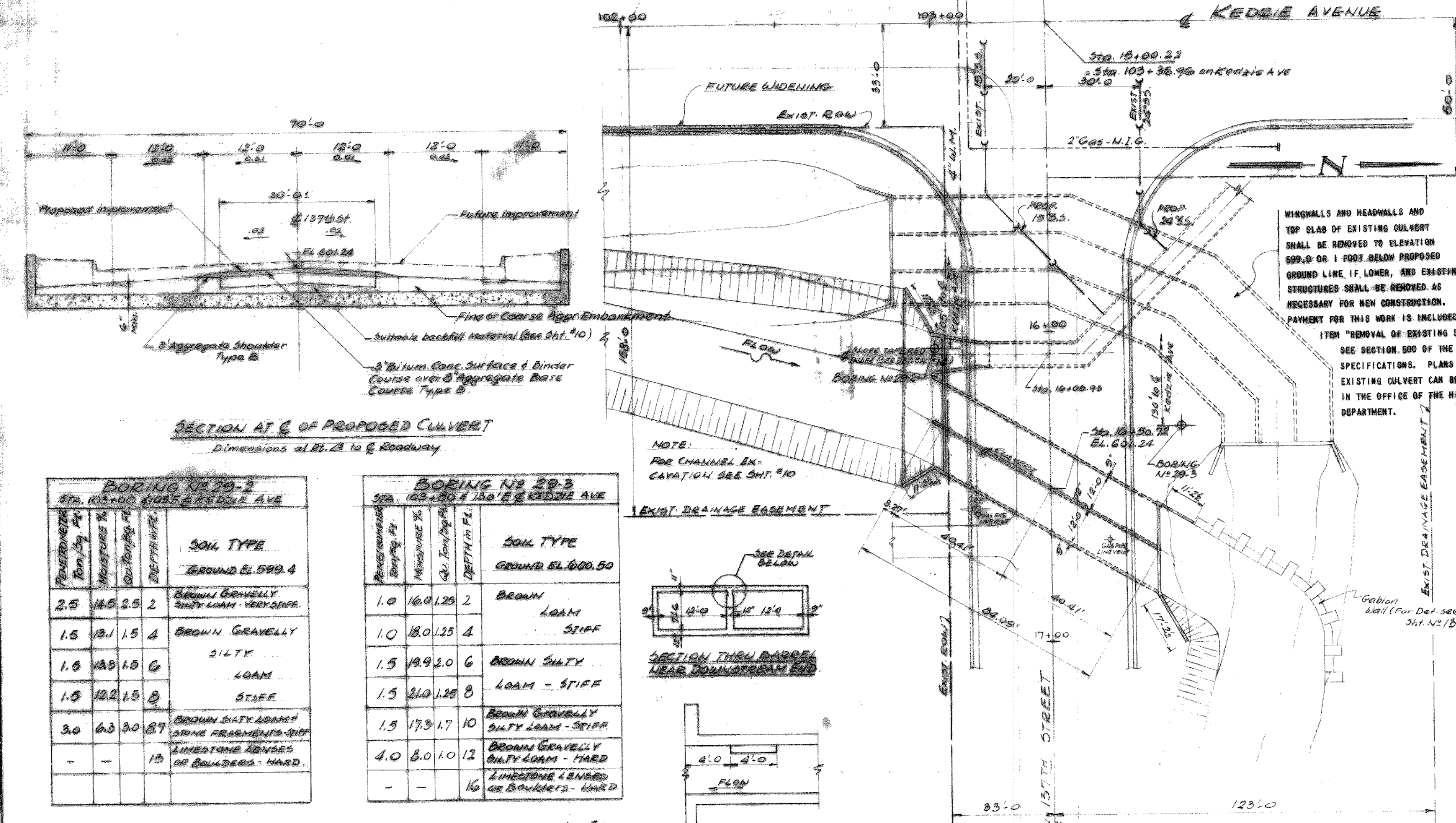
CONTRACT 14-253-5FR
FLOOD CONTROL PROJECT ON
MIDLOTHIAN CREEK IN ROBBINS, ILLINOIS (RE-BID)
LITTLE CALUMET RIVER WATERSHED
KEDZIE AVE MAIN DRAIN
SHEET 1

Sheet Number:
R-001

REFERENCE ONLY - NOT TO SCALE

This Reference Drawing is based upon archival data in possession of MWRDCC. It is presented solely for information purpose. Reference drawing is not to be modified or change. MWRDCC makes no guarantee as to the accuracy of the information, nor is it to be used to execute contract work.

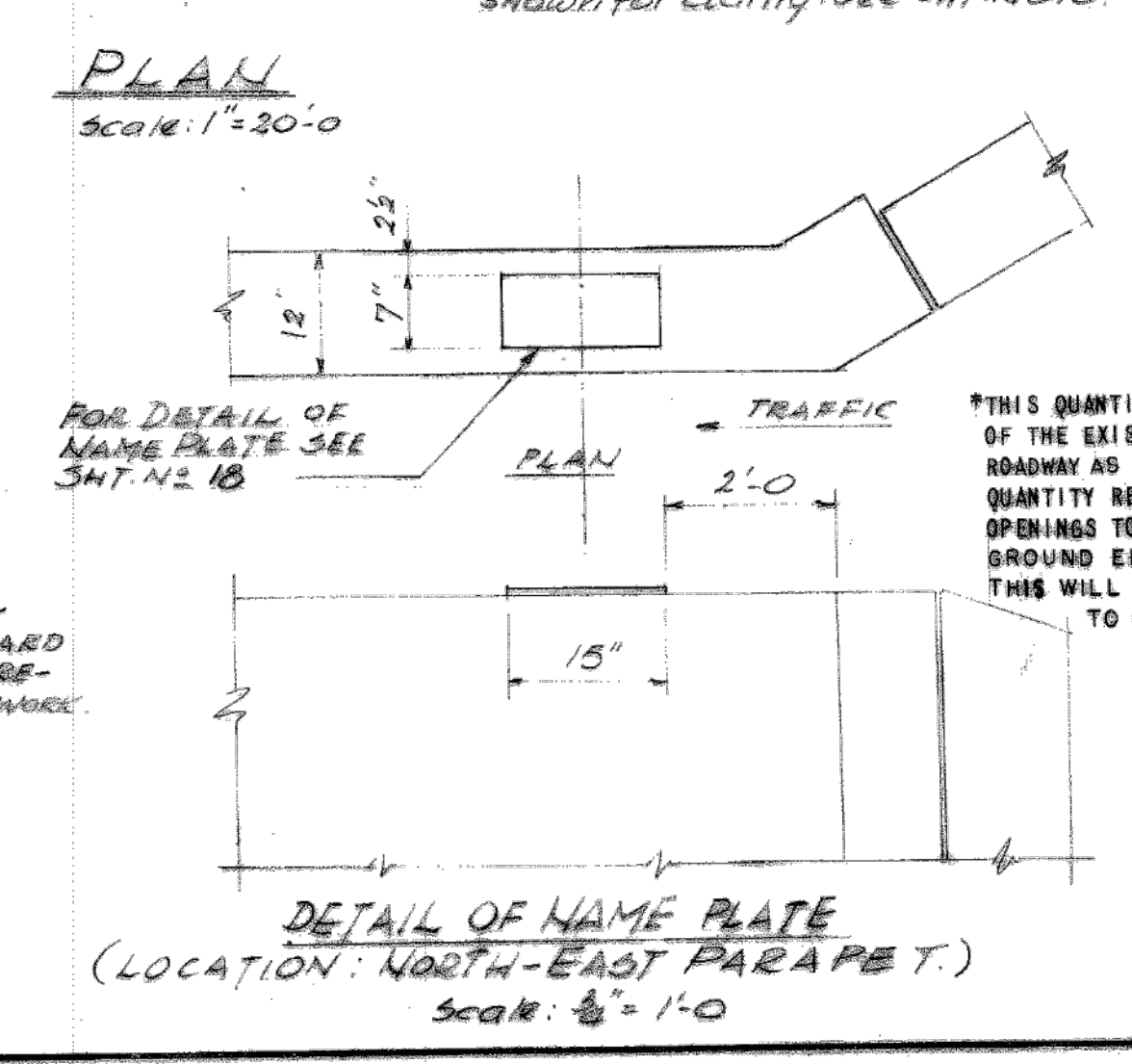
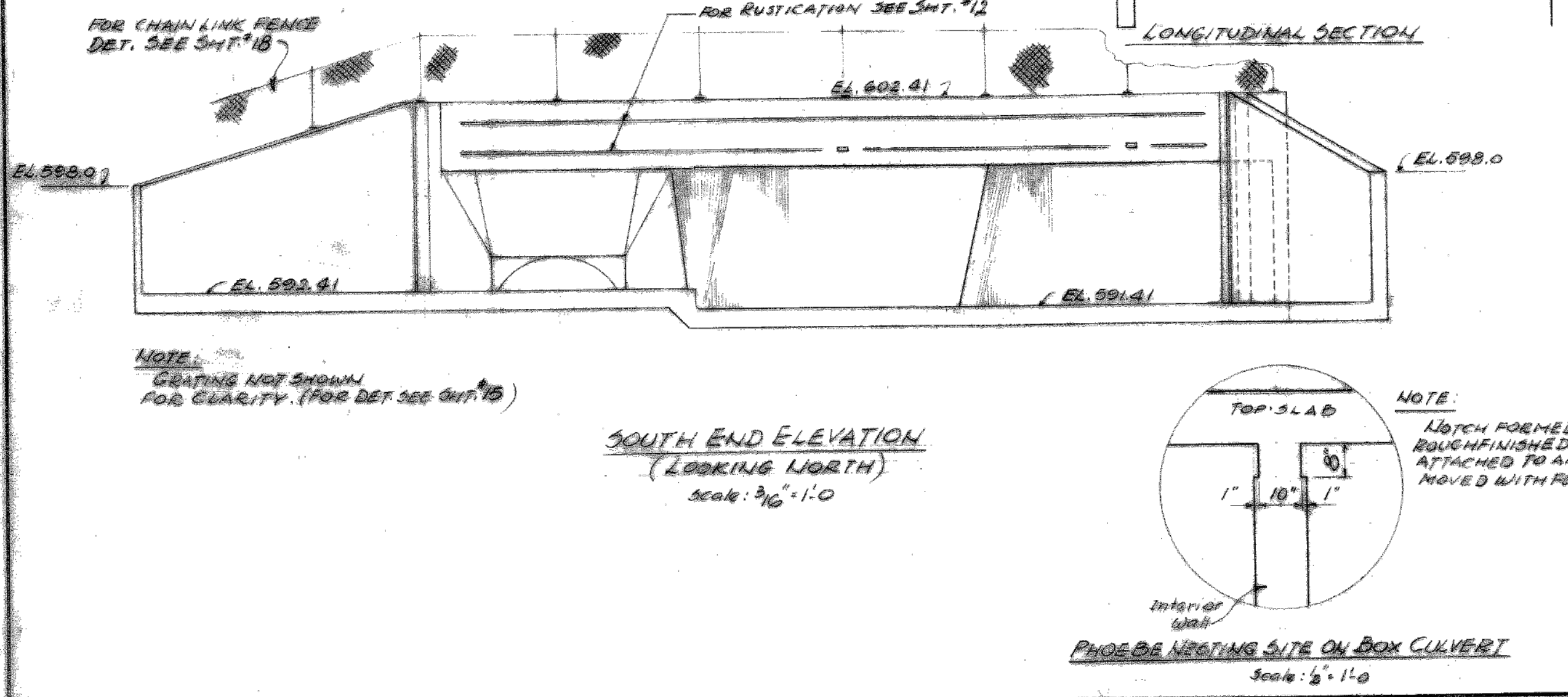
ITEM No.	YEAR	SHEET No.
97	1979	9



- GENERAL NOTES**
- REINFORCEMENT BARS SHALL COMPLY WITH A.A.S.H.T.O. M31 OR M59 GRADE 40.
 - CLASS X CONCRETE SHALL BE USED THROUGHOUT. EXPOSED CONCRETE EDGES SHALL HAVE 3/4 IN. CHAMFERS. COARSE AGGREGATE IN THE CONCRETE WILL BE REQUIRED TO MEET THE QUALITY STANDARDS SPECIFIED IN ARTICLE 704.01 OF STANDARD SPECIFICATIONS (JULY 1, 1976). ANY PROVISION UNDER SUPPLEMENTAL SPECIFICATIONS REGARDING THE USE OF GHEAT WILL NOT BE PERMITTED.
 - WATERPROOFING SHALL CONFORM TO ARTICLES 503.11 AND 503.18 OF THE STANDARD SPECIFICATIONS. THE FOLLOWING SURFACES OF THE CULVERT SHALL BE WATERPROOFED: THE TOP OF THE TOP SLAB. THE BACKS OF THE EXTERIOR WALLS ABOVE THE CONSTRUCTION JOINT. THE BACKS OF THE WING WALLS ABOVE THE TOPS OF THE FOOTING TO ONE FOOT BELOW THE PROPOSED GROUND LEVEL.
 - PROTECTIVE COAT SHALL BE APPLIED TO THE EXPOSED HORIZONTAL SURFACES OF PARAPETS AND WINGWALLS AND EXPOSED VERTICAL FACES OF PARAPETS. PROTECTIVE COAT SHALL BE INCLUDED IN THE CONTRACT BID PRICE FOR CLASS X CONCRETE.
 - NON-METALLIC WATERSEALS, PREFORMED EXPANSION JOINT FILLERS AND CONCRETE NAILS SHALL BE INCLUDED FOR PAYMENT IN THE CONTRACT BID PRICE FOR CLASS X CONCRETE. THESE ITEMS SHALL NOT BECOME BENT, TORN, OR DISTORTED DURING CONSTRUCTION.
 - ROCK EXCAVATION FOR STRUCTURES WILL BE IN ACCORDANCE WITH SEC. 502 OF THE STANDARD SPECIFICATIONS.
 - CULVERT BARREL AND WINGWALL EXCAVATION (EXCLUDING ROCK EXCAVATION FOR STRUCTURES) WILL NOT BE PAID FOR SEPARATELY BUT WILL BE INCLUDED IN THE UNIT PRICE BID FOR CLASS X CONCRETE.
 - DRAIN (WEEP) HOLES IN CULVERT SIDEWALLS SHALL BE BUILT ACCORDING TO ARTICLE 503.09 STANDARD SPECIFICATIONS. COST OF DRAIN HOLES SHALL BE INCLUDED IN THE UNIT PRICE BID FOR CLASS X CONCRETE.
 - FOR GRADING AND FINISHING CHANNEL SIDES, SEE CROSS SECTIONS, SHEET NO. 10.
 - GENERAL NOTES FOR CHAIN LINK FENCE (MODIFIED) 3'-6".
- THE STRUCTURAL STEEL BASE PLATE SHALL CONFORM TO THE REQUIREMENTS OF A.A.S.H.T.O. M-183. THE PLATES AND THE 1/2 IN. THREADED ANCHOR BOLT SHALL BE GALVANIZED AFTER FABRICATION IN ACCORDANCE WITH A.A.S.H.T.O. M-111 AND A.S.T.M. A-385.
- THE TERMINAL POSTS (END, CORNER), LINE POSTS (INTERMEDIATE) AND HORIZONTAL BRACES SHALL MEET ARTICLE 710.33 (b) OR (c) OF THE STANDARD SPECIFICATIONS.
- THE STRETCHER BARS SHALL BE GALVANIZED FLAT STEEL BAR NOT LESS THAN 1/4" x 3/4" AND THE STRETCHER BAR BANDS SHALL BE GALVANIZED FLAT STEEL BAR NOT LESS THAN 1/8" x 1" WITH A 3/8" DIA. GALVANIZED CARRIAGE BOLT SPACED AS SHOWN ON THE PLANS.
- GALVANIZED POST TOPS SHALL BE REQUIRED ON ALL HOLLOW PIPE TYPE POSTS.
- THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER LINEAL FOOT FOR CHAIN LINK FENCE (MODIFIED) 3'-6". THE CONTRACT UNIT PRICE FOR CHAIN LINK FENCE SHALL ALSO INCLUDE THE COST OF FURNISHING ALL MATERIAL AND INSTALLING THE COMPLETE FENCE.

SECTION AT E OF PROPOSED CULVERT
Dimensions at Bl. A to E Roadway

BORING NO 29-2 STA. 103+00 TO 55 E KEDZIE AVE				BORING NO 29-3 STA. 103+00 TO 150 E KEDZIE AVE			
DEPTH IN FEET	PERCENTAGE MOISTURE %	GRAIN SIZE	SOIL TYPE	DEPTH IN FEET	PERCENTAGE MOISTURE %	GRAIN SIZE	SOIL TYPE
2.5	14.5	2.5	BROWN GRVELLY SILTY LOAM - VERY STIFF.	1.0	16.0	1.25	BROWN LOAM
1.5	13.1	1.5	BROWN GRAVELLY SILTY LOAM	1.0	18.0	1.25	LOAM - STIFF
1.0	14.9	1.0	LOAM	1.5	19.9	2.0	BROWN SILTY LOAM - STIFF
1.5	12.2	1.5	STIFF	1.5	21.0	1.25	LOAM - STIFF
3.0	6.3	3.0	BROWN SILTY LOAM & SOME FRAGMENTS STIFF	1.5	17.3	1.7	BROWN GRAVELLY SILTY LOAM - STIFF
-	-	13	LIMESTONE LENSES OR BOULDERS - HARD	4.0	8.0	1.0	BROWN GRAVELLY SILTY LOAM - HARD
-	-	-	-	-	-	16	LIMESTONE LENSES OR BOULDERS - HARD



SPECIFICATION

STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION STATE OF ILLINOIS, DATED JULY 1, 1976 AS AMENDED TO DATE
 STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGE A.A.S.H.T.O. TWELFTH EDITION 1977, AND CURRENT INTERIM SPECIFICATIONS.
 CULVERT DESIGN MANUAL, STATE OF ILLINOIS, DECEMBER 1963 AND AS AMENDED TO DATE.

DESIGN DATA

LOADING = H S 20 - 44
 EARTH PRESSURE = 50 lb/cf (Equivalent Fluid) Walls
 EARTH PRESSURE = 40 lb/cf (Equivalent Fluid) Others
 $f_s = 20,000$ psi $f_c = 1,000$ psi (Wings) $v_c = 75$ psi (Wings)
 $f_c = 1,400$ psi (Barrel) $f_c = 90$ psi (Barrel) $n = 10$

BILL OF MATERIAL

Removal of Existing Structures	1	Each
*Fine or Coarse Aggregate Embankment	.78	Cu. Yds.

REVISIONS

DATE	BY	DESCRIPTION

DEPARTMENT OF HIGHWAYS
 COOK COUNTY, ILLINOIS

GEORGE W. DUNNE
 PRESIDENT BOARD OF COMMISSIONERS

RICHARD H. GULBERMAN
 SUPERINTENDENT OF HIGHWAYS

GENERAL PLAN
 197TH STREET CULVERT AT MIDLOTHIAN CREEK
 KEDZIE AVENUE - 197TH STREET TO CAL-SAG CHANNEL

COMPUTED BY: [Signature]
 CHECKED BY: [Signature]
 DRAWN BY: [Signature]
 CHECKED BY: [Signature]

EXAMINED: July 25, 1979
 COUNTY ENGINEER: [Signature]

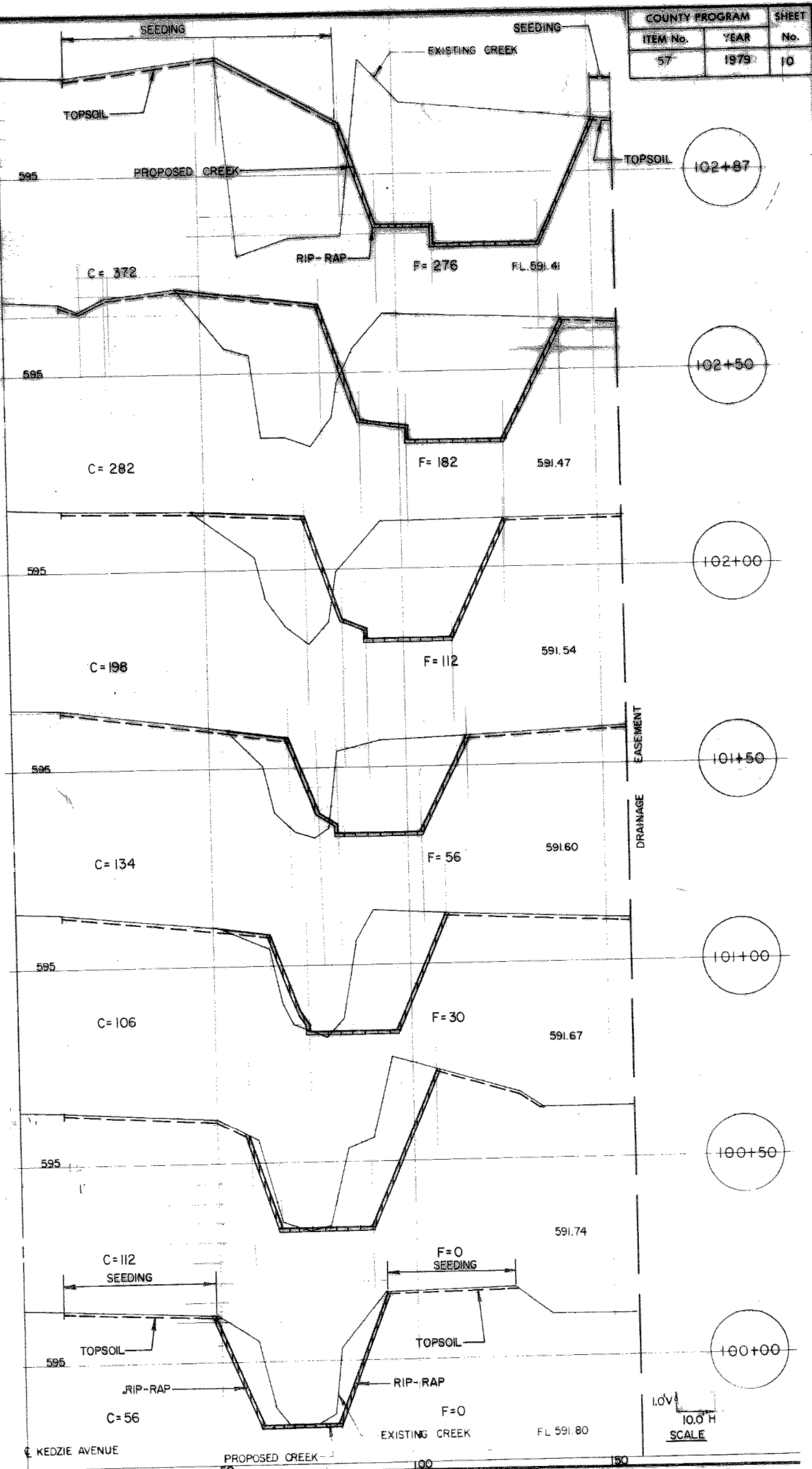
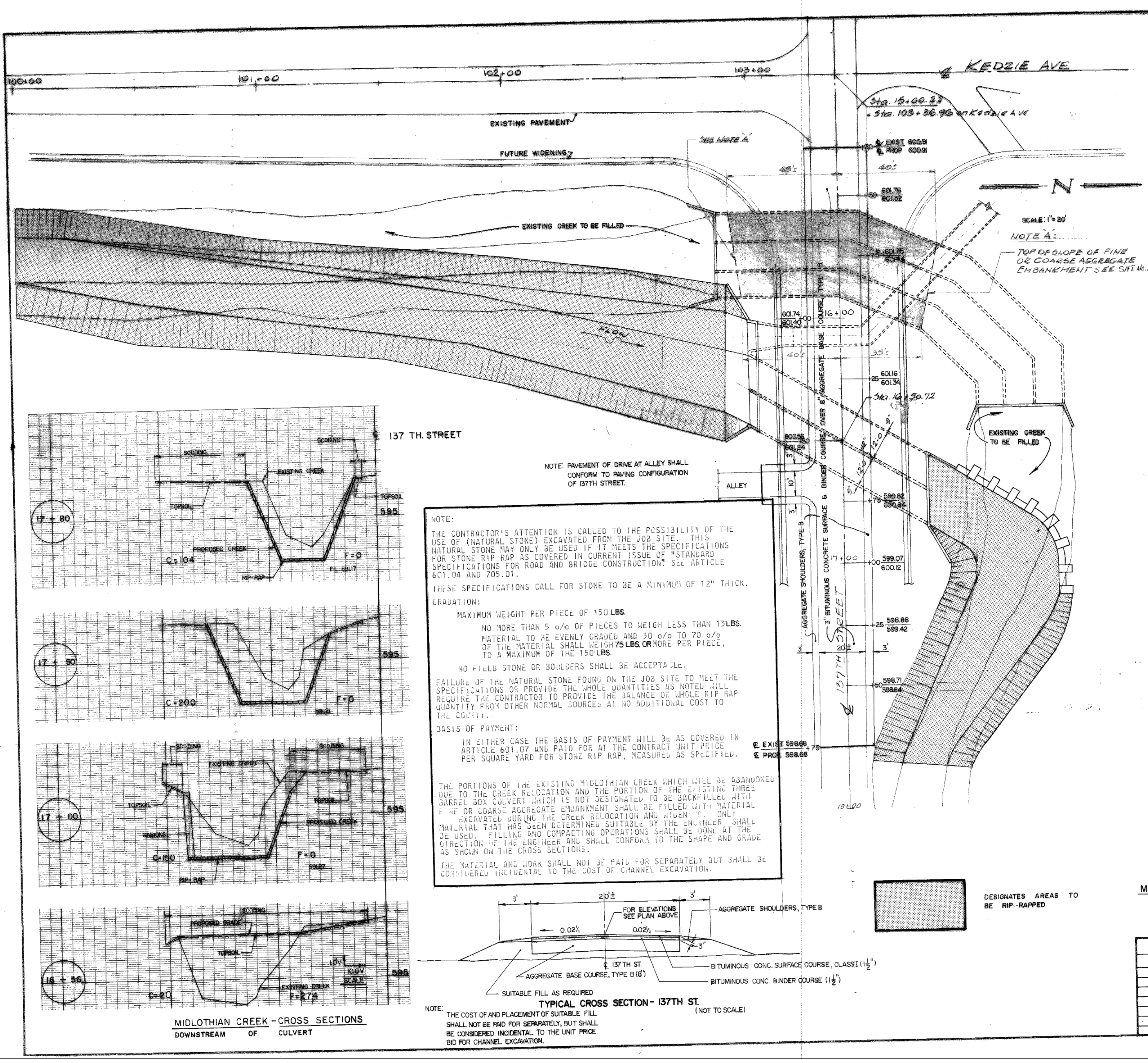
ROUTE: 053 SECTION NUMBER: 053-1213.01 SHEET NO.: 9 TOTAL SHEETS: 27 DRAWING NO.: PR1160

CONTRACT 14-253-5FR
 FLOOD CONTROL PROJECT ON
 MIDLOTHIAN CREEK IN ROBBINS, ILLINOIS (RE-BID)
 LITTLE CALUMET RIVER WATERSHED
 KEDZIE AVE MAIN DRAIN
 SHEET 9

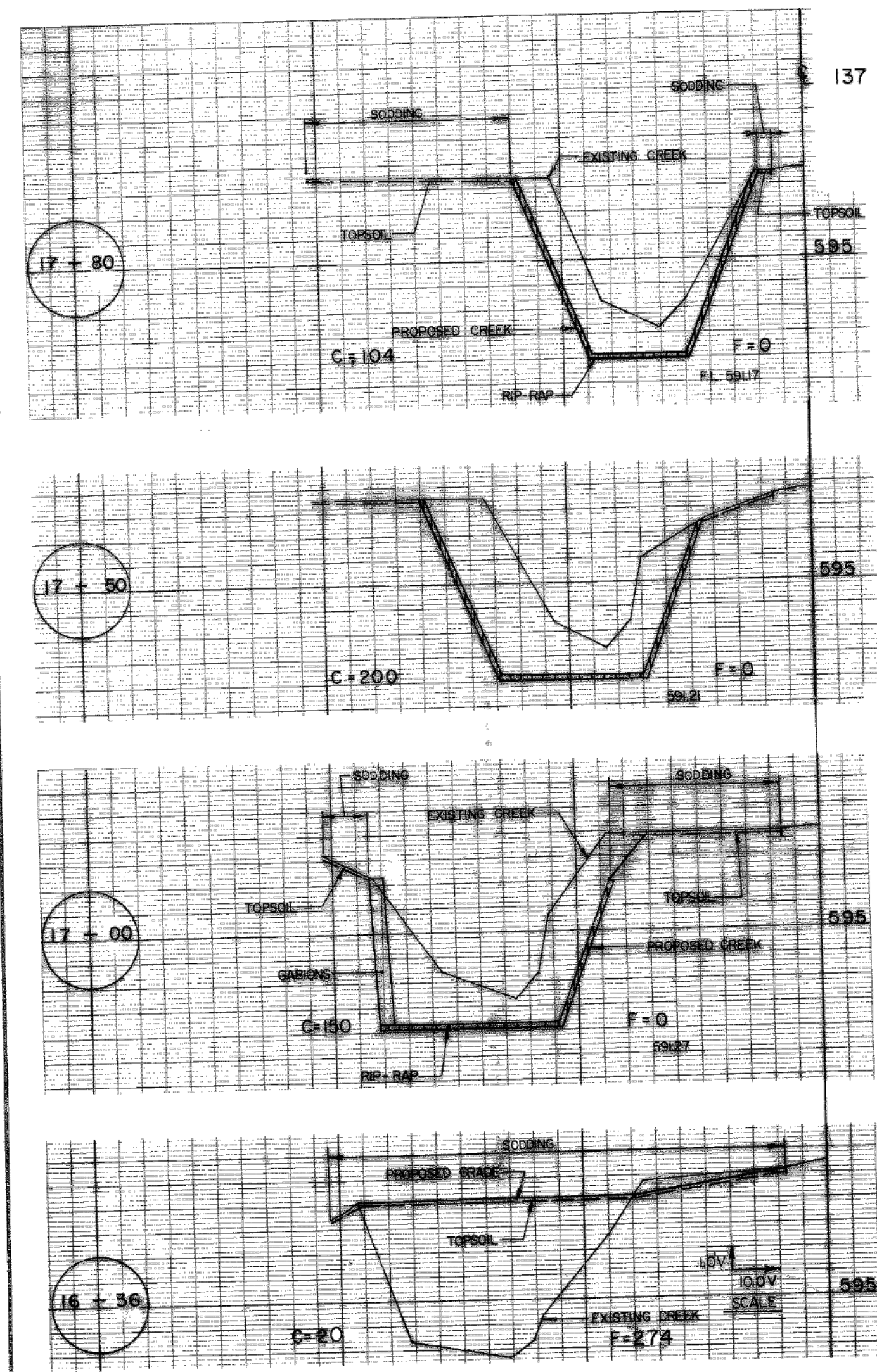
Sheet Number:
R-002

REFERENCE ONLY - NOT TO SCALE

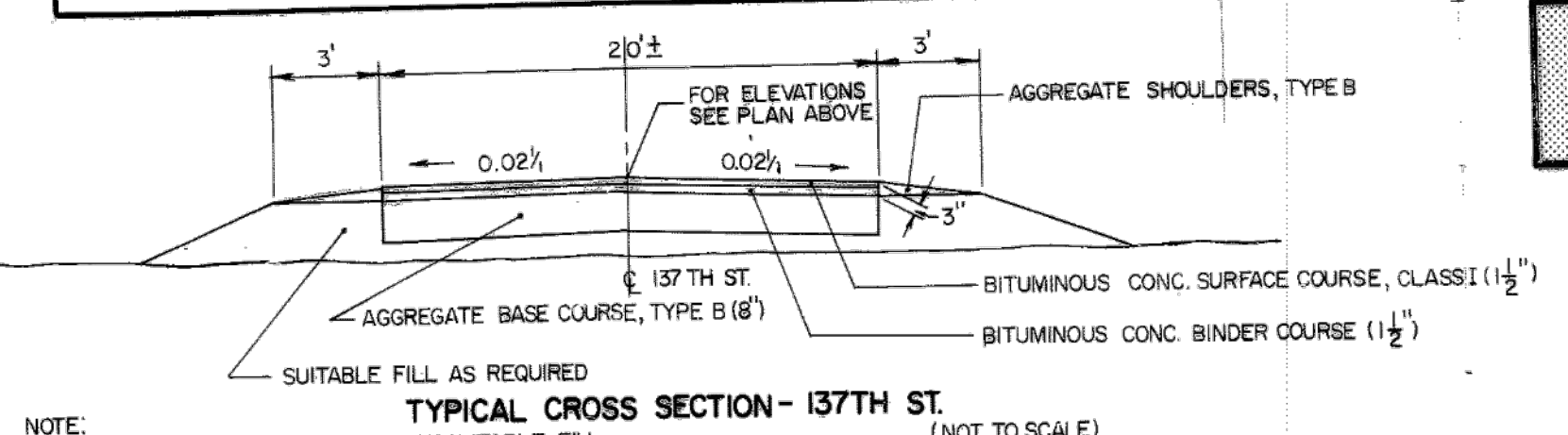
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COUNTY PROGRAM	YEAR	SHEET
ITEM No. 57	1979	No. 10



NOTE:
 THE CONTRACTOR'S ATTENTION IS CALLED TO THE POSSIBILITY OF THE USE OF (NATURAL STONE) EXCAVATED FROM THE JOB SITE. THIS NATURAL STONE MAY ONLY BE USED IF IT MEETS THE SPECIFICATIONS FOR STONE RIP RAP AS COVERED IN CURRENT ISSUE OF "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" SEE ARTICLE 601.04 AND 705.01.
 THESE SPECIFICATIONS CALL FOR STONE TO BE A MINIMUM OF 12" THICK. GRADATION:
 MAXIMUM WEIGHT PER PIECE OF 150 LBS.
 NO MORE THAN 5% OF PIECES TO WEIGH LESS THAN 13 LBS.
 MATERIAL TO BE EVENLY GRADED AND 30% TO 70% OF THE MATERIAL SHALL WEIGH 75 LBS OR MORE PER PIECE, TO A MAXIMUM OF THE 150 LBS.
 NO FIELD STONE OR BOULDERS SHALL BE ACCEPTABLE.
 FAILURE OF THE NATURAL STONE FOUND ON THE JOB SITE TO MEET THE SPECIFICATIONS OR PROVIDE THE WHOLE QUANTITIES AS NOTED WILL REQUIRE THE CONTRACTOR TO PROVIDE THE BALANCE OF WHOLE RIP RAP QUANTITY FROM OTHER NORMAL SOURCES AT NO ADDITIONAL COST TO THE COUNTY.
BASIS OF PAYMENT:
 IN EITHER CASE THE BASIS OF PAYMENT WILL BE AS COVERED IN ARTICLE 601.07 AND PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE YARD FOR STONE RIP RAP, MEASURED AS SPECIFIED.
 THE PORTIONS OF THE EXISTING MIDLOTHIAN CREEK WHICH WILL BE ABANDONED DUE TO THE CREEK RELOCATION AND THE PORTION OF THE EXISTING THREE BARREL BOX CULVERT WHICH IS NOT DESIGNATED TO BE BACKFILLED WITH FINE OR COARSE AGGREGATE EMANKMENT SHALL BE FILLED WITH MATERIAL EXCAVATED DURING THE CREEK RELOCATION AND WIDENING. ONLY MATERIAL THAT HAS BEEN DETERMINED SUITABLE BY THE ENGINEER SHALL BE USED. FILLING AND COMPACTING OPERATIONS SHALL BE DONE IN THE DIRECTION OF THE ENGINEER AND SHALL CONFORM TO THE SHAPE AND GRADE AS SHOWN ON THE CROSS SECTIONS.
 THE MATERIAL AND WORK SHALL NOT BE PAID FOR SEPARATELY BUT SHALL BE CONSIDERED INCIDENTAL TO THE COST OF CHANNEL EXCAVATION.



NOTE: THE COST OF AND PLACEMENT OF SUITABLE FILL SHALL NOT BE PAID FOR SEPARATELY, BUT SHALL BE CONSIDERED INCIDENTAL TO THE UNIT PRICE BID FOR CHANNEL EXCAVATION.

DESIGNATES AREAS TO BE RIP-RAPPED

MIDLOTHIAN CREEK - CROSS SECTIONS UPSTREAM OF CULVERT

DATE	BY	DESCRIPTION

DEPARTMENT OF HIGHWAYS
 COOK COUNTY, ILLINOIS

GEORGE W. DUNNE
 PRESIDENT BOARD OF COMMISSIONERS

RICHARD H. GOLTERMAN
 SUPERINTENDENT OF HIGHWAYS

MIDLOTHIAN CREEK CULVERT
 137 TH. STREET AND KEDZIE AVENUE
 CHANNEL DETAIL - 137TH STREET PAVING DETAIL

COMPUTED D.A.P.
 CHECKED P.F.V. I.A.B.
 DRAWN J.G.C.
 CHECKED P.F.V. I.A.B.

EXAMINED 7-25-79
 CHIEF ENGINEER OF DESIGN

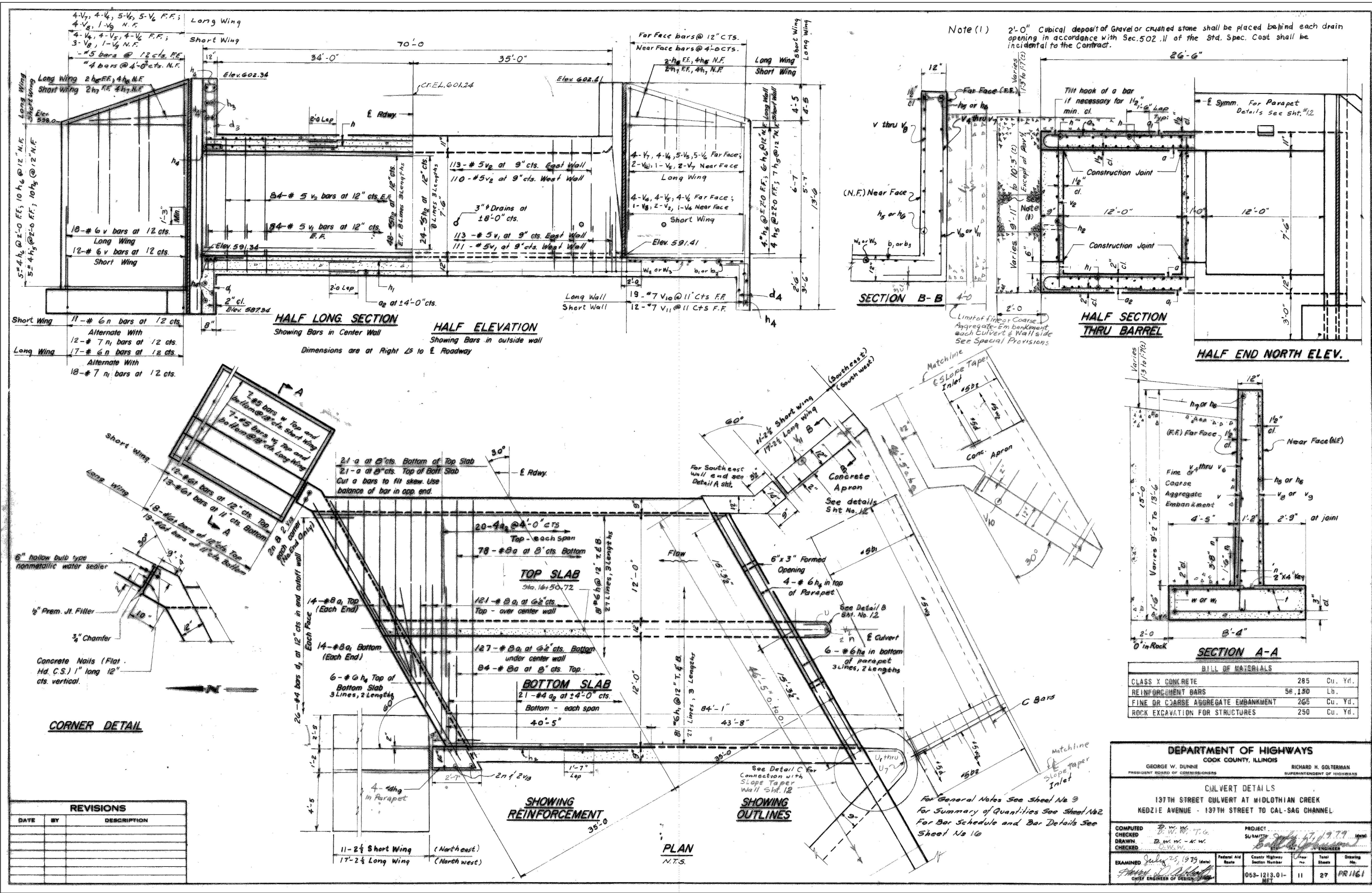
SUBMITTED July 24, 1979
 DESIGN ENGINEER

Route 053 SECTION NUMBER 050-12/3.01 SHEET No. 10 Total Sheets 27 Drawing No.

CONTRACT 14-253-5FR
 FLOOD CONTROL PROJECT ON
 MIDLOTHIAN CREEK IN ROBBINS, ILLINOIS (RE-BID)
 LITTLE CALUMET RIVER WATERSHED
 KEDZIE AVE MAIN DRAIN
 SHEET 10

Sheet Number:
R-003

REFERENCE ONLY - NOT TO SCALE
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BILL OF MATERIALS

CLASS X CONCRETE	285	Cu. Yd.
REINFORCEMENT BARS	56,130	Lb.
FINE OR COARSE AGGREGATE EMBANKMENT	265	Cu. Yd.
ROCK EXCAVATION FOR STRUCTURES	250	Cu. Yd.

DEPARTMENT OF HIGHWAYS
COOK COUNTY, ILLINOIS

GEORGE W. DUNNE
PRESIDENT BOARD OF COMMISSIONERS

RICHARD H. GOLTERMAN
SUPERINTENDENT OF HIGHWAYS

CULVERT DETAILS
137TH STREET CULVERT AT MIDLOTHIAN CREEK
KEDZIE AVENUE - 137TH STREET TO CAL-SAG CHANNEL

COMPUTED BY: [Signature]
CHECKED BY: [Signature]
DRAWN BY: [Signature]
CHECKED BY: [Signature]

PROJECT SUBMITTED: 7/19/79
EXAMINED: July 25, 1979
DATE: [Signature]
CHIEF ENGINEER OF DESIGN

Federal AID	County Highway	Sheet	Total Sheets	Drawing No.
		11	27	PR 1161

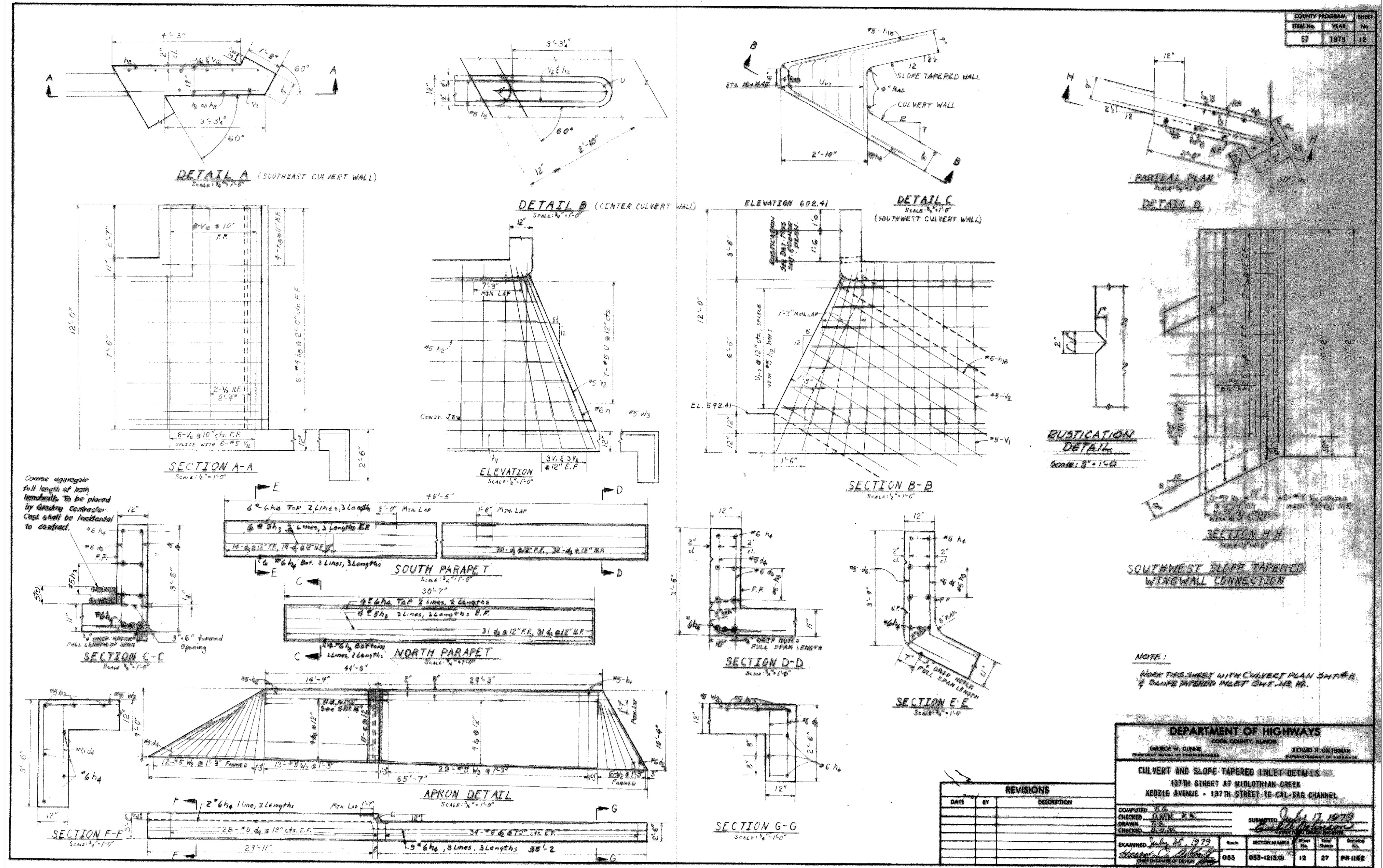
CONTRACT 14-253-5FR
FLOOD CONTROL PROJECT ON
MIDLOTHIAN CREEK IN ROBBINS, ILLINOIS (RE-BID)
LITTLE CALUMET RIVER WATERSHED
KEDZIE AVE MAIN DRAIN
SHEET 11

Sheet Number:
R-004

REFERENCE ONLY - NOT TO SCALE

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PLOT DATE: 8/15/2024 12:39 PM PLOTTED BY: MADRID, MICHELLE
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REFERENCE ONLY - NOT TO SCALE

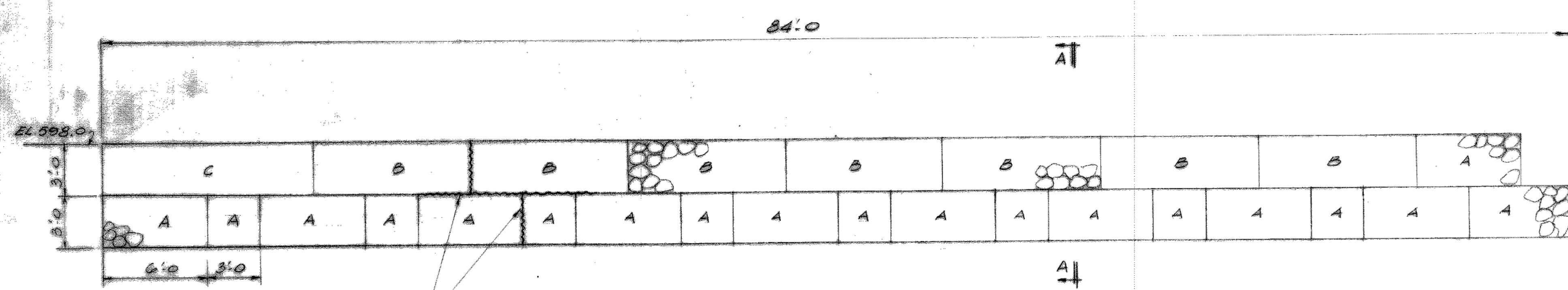
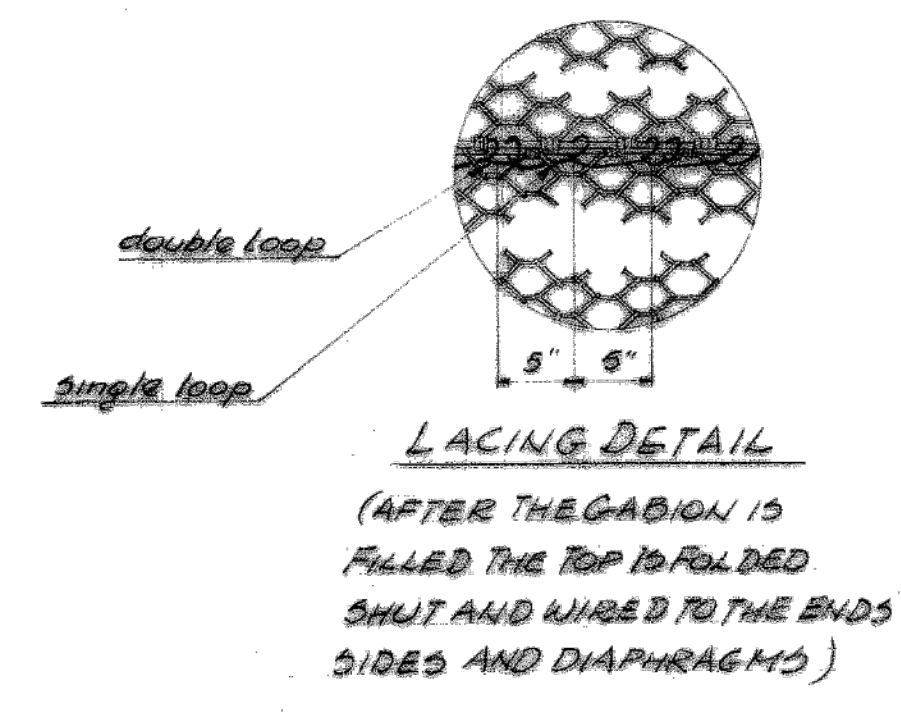
This Reference Drawing is based upon archival data in possession of MWRDC. It is presented solely for information purpose. Reference drawing is not to be modified or change. MWRDC makes no guarantee as to the accuracy of the information, nor is it to be used to execute contract work.

CONTRACT 14-253-5FR
 FLOOD CONTROL PROJECT ON
 MIDLOTHIAN CREEK IN ROBBINS, ILLINOIS (RE-BID)
 LITTLE CALUMET RIVER WATERSHED
 KEDZIE AVE MAIN DRAIN
 SHEET 12

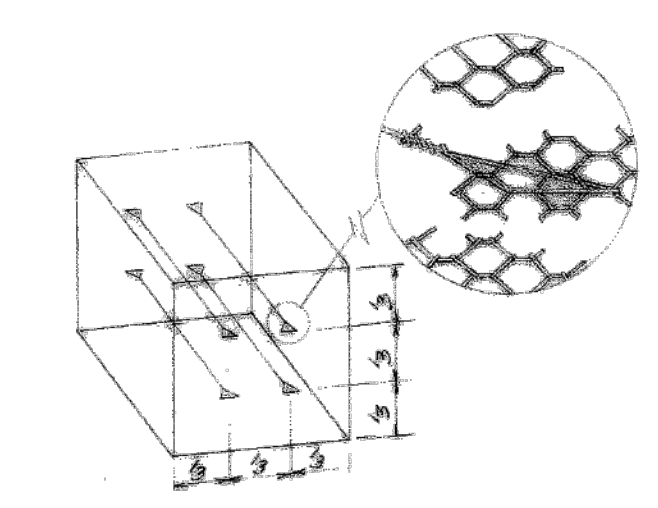
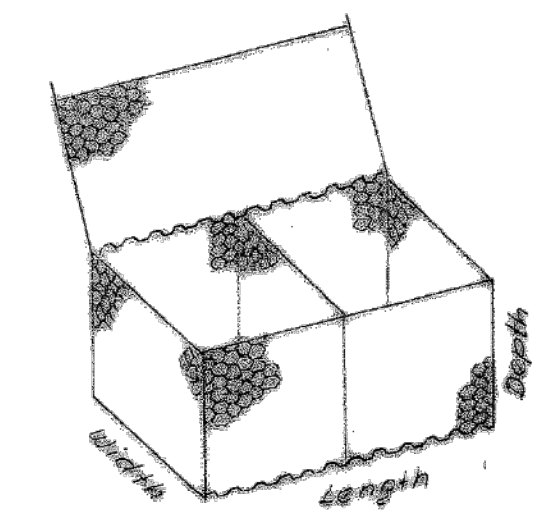
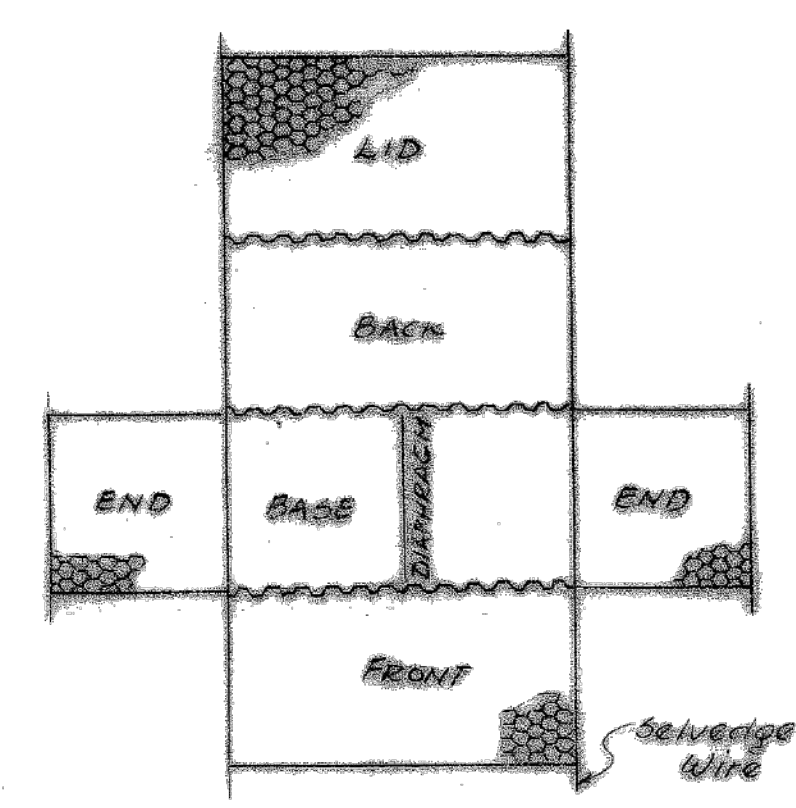
Sheet Number:
R-005

COUNTY PROGRAM			SHEET
ITEM No.	YEAR	No.	
57	1979	13	

Letter Code	SIZE			No. of Diaphragms	Capacity Co. Vol.
	Length	Width	Depth		
A	6'-0"	3'-0"	3'-0"	1	2
B	9'-0"	3'-0"	3'-0"	2	3
C	12'-0"	3'-0"	3'-0"	3	4



ADJOINING GABIONS ARE LACED TOGETHER (TYP.) SEE SPECIAL PROVISIONS.



BILL OF MATERIAL

ITEM	UNIT	QUANTITY
GABION	LIN. FT.	100

SECTION A-A
 Scale 1/4" = 1'-0"

SECTION B-B
 Scale 1/4" = 1'-0"

PLAN OF GABION WALL
 (ONLY FIRST LAYER OF GABIONS SHOWN)
 Scale 1/4" = 1'-0"

REVISIONS

DATE	BY	DESCRIPTION

DEPARTMENT OF HIGHWAYS
 COOK COUNTY, ILLINOIS

GEORGE W. DUNNE
 PRESIDENT BOARD OF COMMISSIONERS

RICHARD H. GOLTERMAN
 SUPERINTENDENT OF HIGHWAYS

GABION DETAILS
 187TH STREET CULVERT AT MIDLOTHIAN CREEK
 KEDZIE AVENUE - 187TH STREET TO CAL-SAG CHANNEL

COMPUTED: [Signature]
 CHECKED: [Signature]
 DRAWN: [Signature]
 CHECKED: [Signature]

DATE: July 17, 1979
 SUBMITTED: [Signature]

Route	SECTION NUMBER	Sheet No.	Total Sheets	Drawing No.
053	053-1213.01	13	27	PR 1163

CONTRACT 14-253-5FR
 FLOOD CONTROL PROJECT ON
 MIDLOTHIAN CREEK IN ROBBINS, ILLINOIS (RE-BID)
 LITTLE CALUMET RIVER WATERSHED
 KEDZIE AVE MAIN DRAIN
 SHEET 13

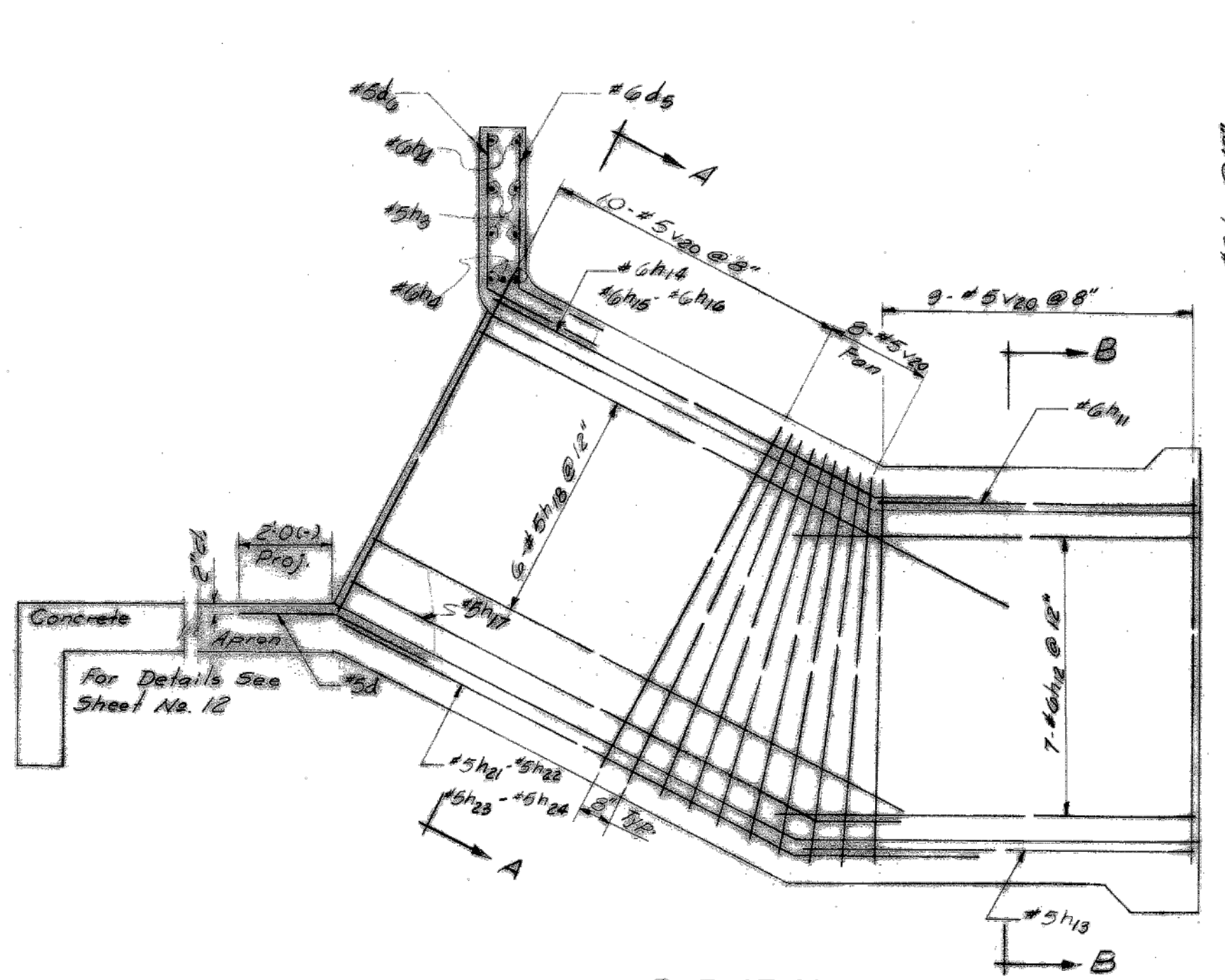
Sheet Number:
R-006

REFERENCE ONLY - NOT TO SCALE

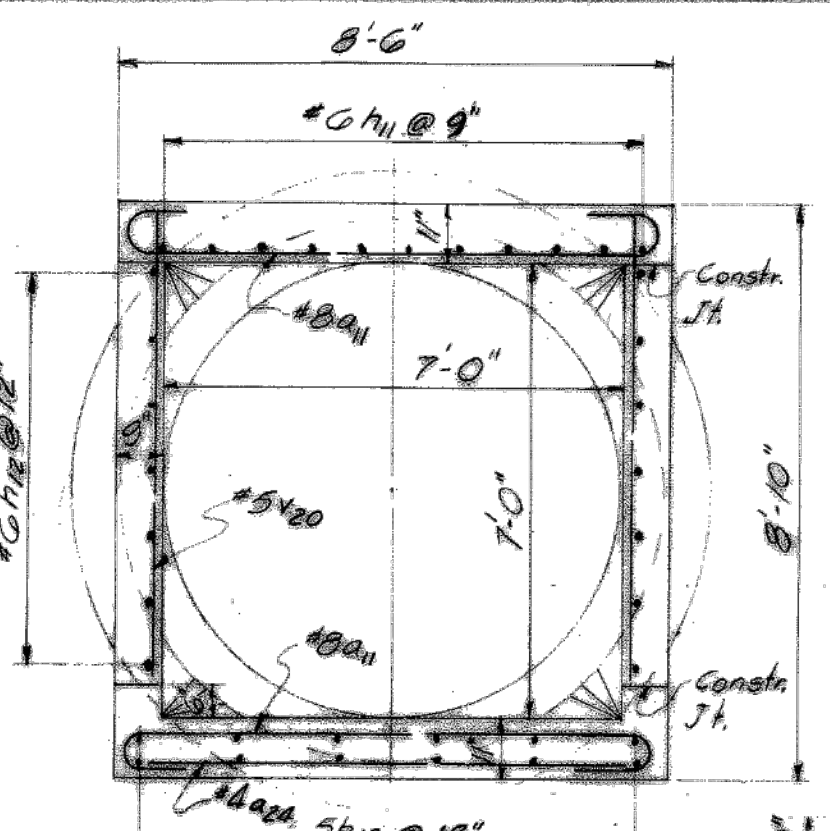
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PLOT DATE: 8/15/2024 12:40 PM PLOTTED BY: MADRID, MICHELLE
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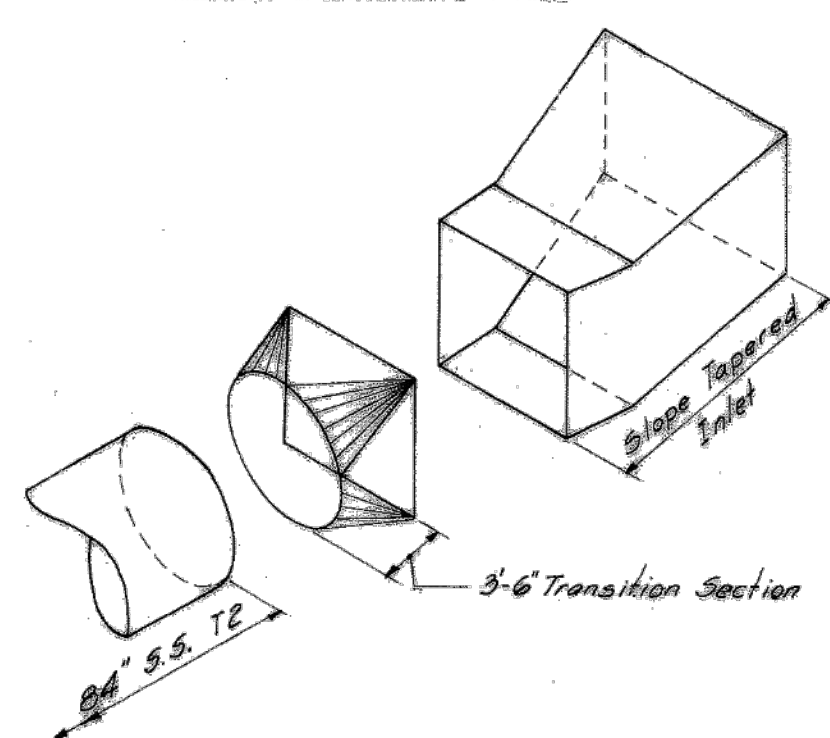
COUNTY PROGRAM		SHEET
ITEM No.	YEAR	No.
57	1979	14



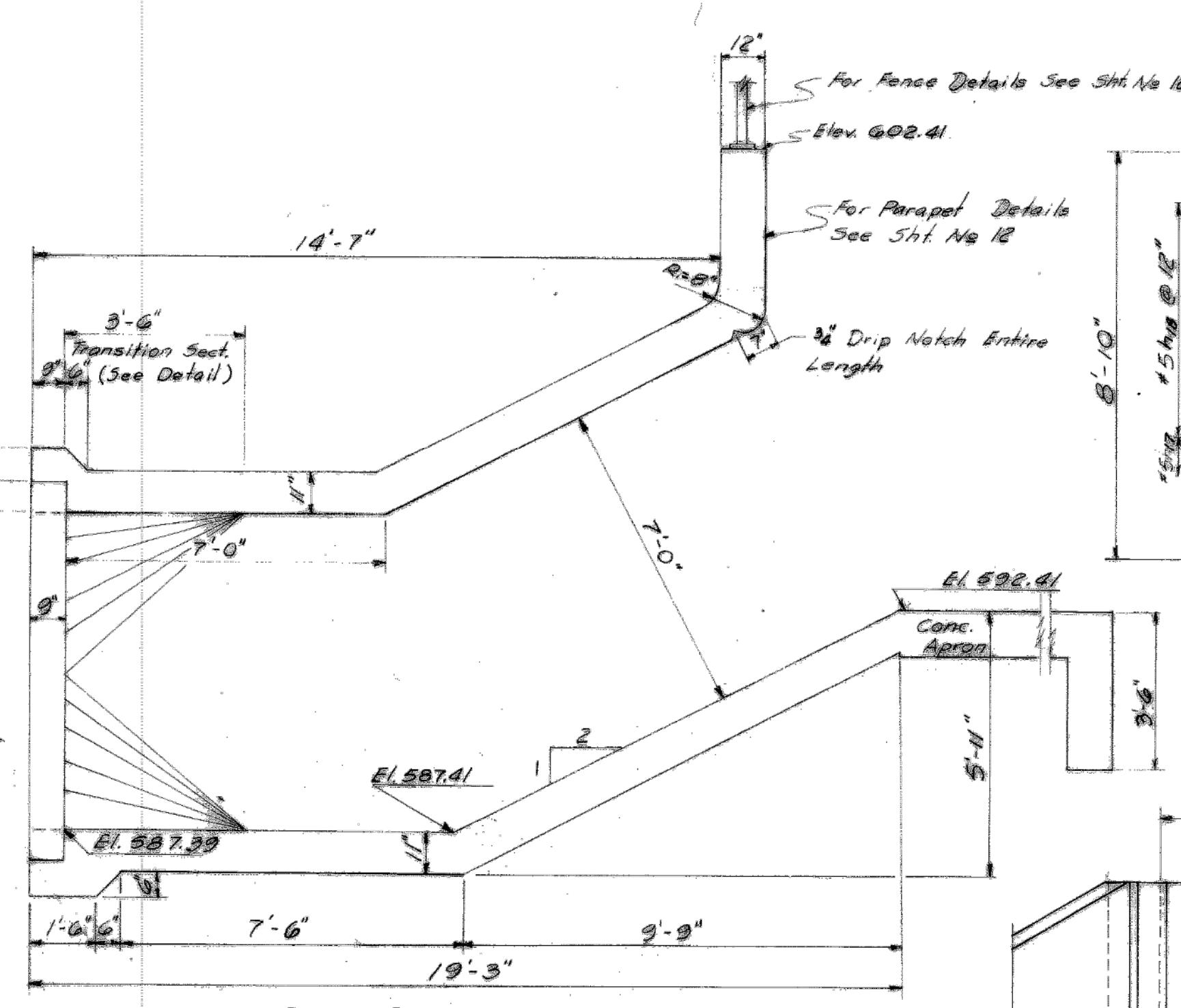
ELEVATION SHOWING REINFORCEMENT



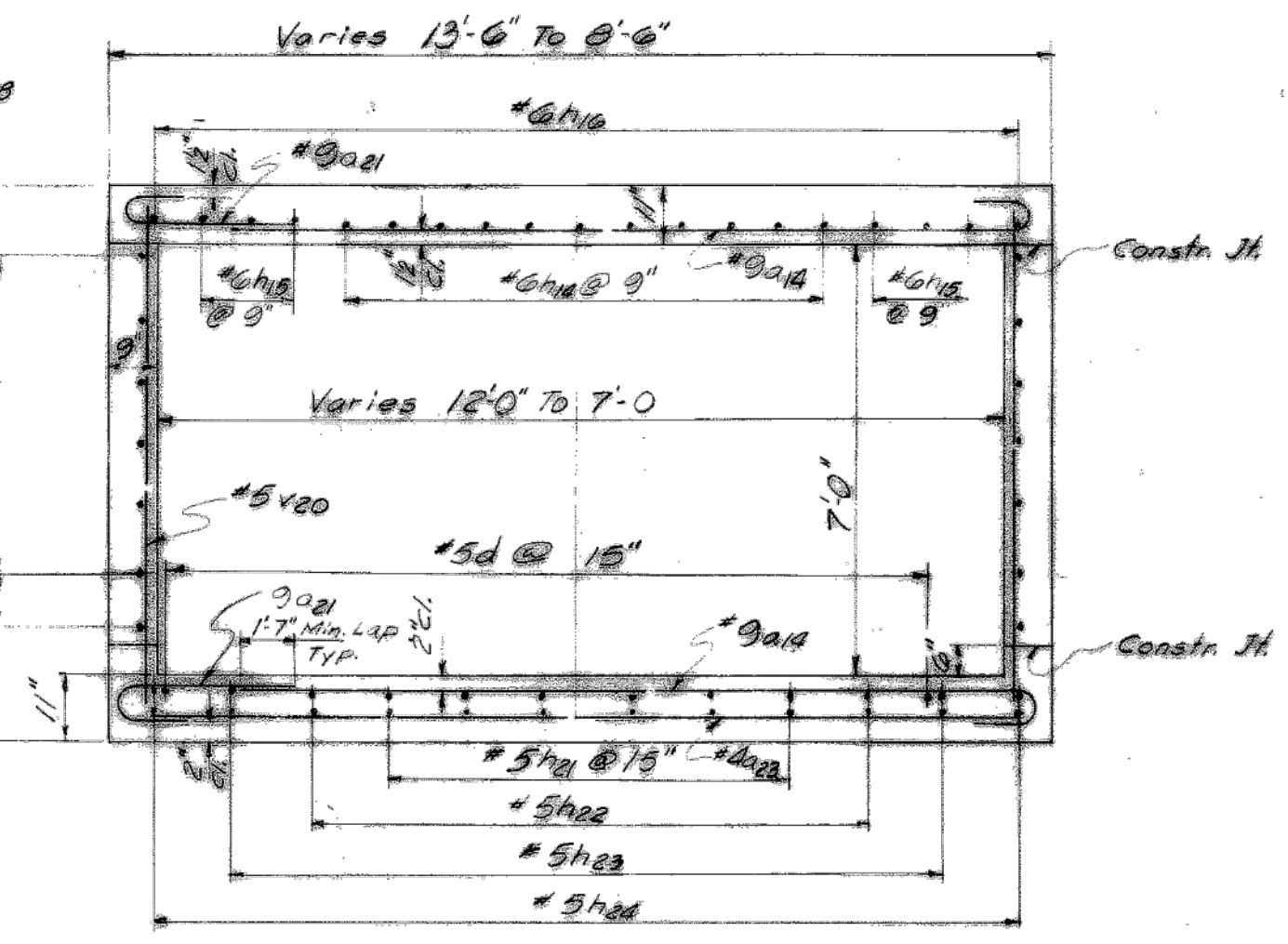
SECTION B-B



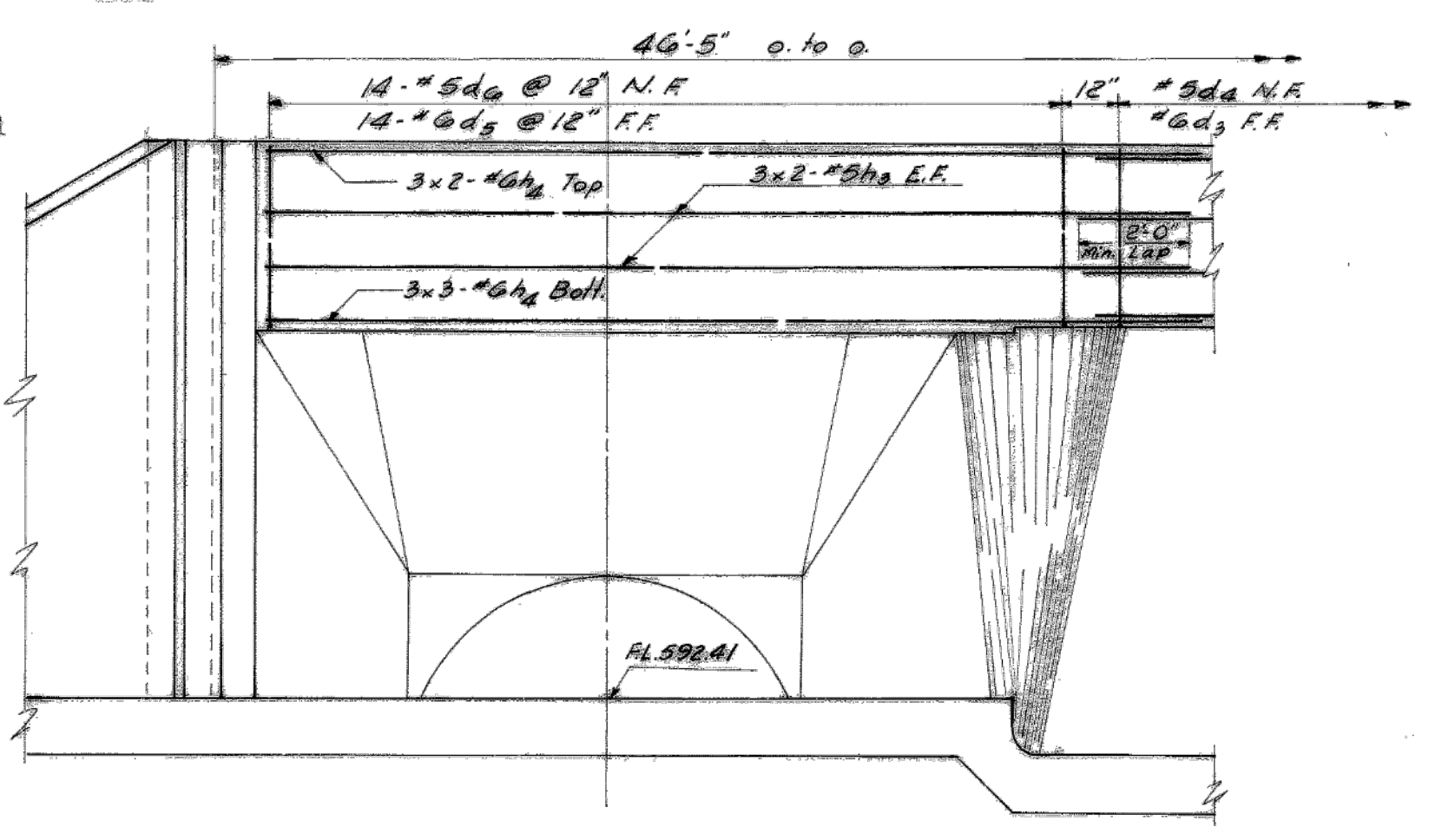
SLOPE-TAPERED INLET APPLIED TO CIRCULAR PIPE



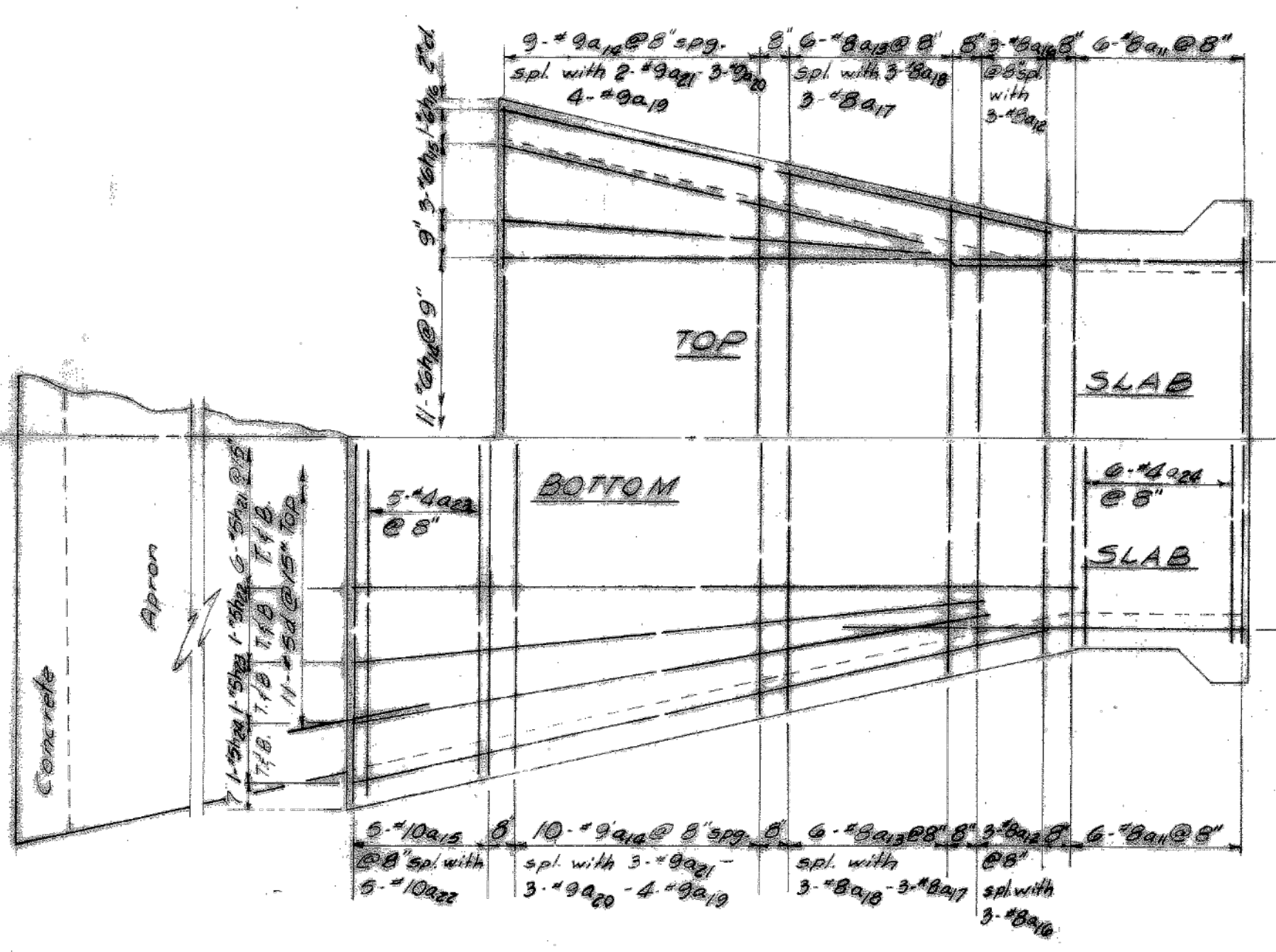
ELEVATION SHOWING OUTLINES



SECTION A-A

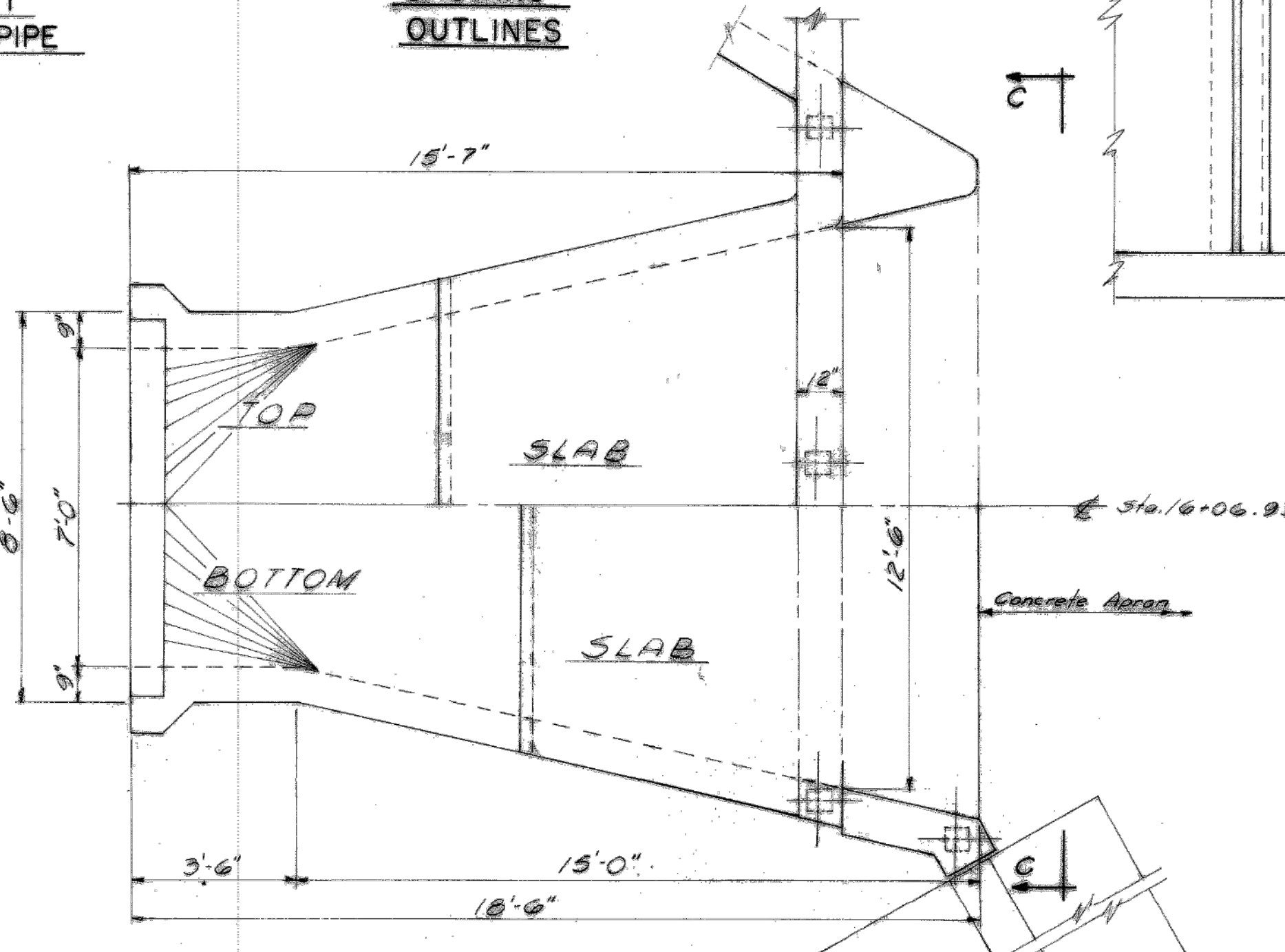


VIEW C-C



SHOWING REINFORCEMENT

SLAB DETAILS
Scale: 3/8" = 1'-0"



SHOWING OUTLINES

BILL OF MATERIAL

Class X Concrete	25 Cu.Yd.
Reinforcement Bars	4470 Lb.

For General Notes See Sheet No. 8.
 For Summary of Quantities See Sheet No. 2.
 For Bar Schedule and Bar Details See Sheet No. 10.
 Work This Sheet with Sheet No. 11 & 12.

REVISIONS

DATE	BY	DESCRIPTION

DEPARTMENT OF HIGHWAYS
 COOK COUNTY, ILLINOIS

GEORGE W. DUNNE
 PRESIDENT, BOARD OF COMMISSIONERS

RICHARD H. GOLTERMAN
 SUPERINTENDENT OF HIGHWAYS

SLOPE TAPERED INLET DETAILS
 137TH STREET AT MIDLOTHIAN CREEK
 KEDZIE AVENUE - 137TH STREET TO CAL-SAG CHANNEL

COMPUTED: R. W. J. R.
 CHECKED: R. W. J. R.
 DRAWN: R. W. J. R.
 CHECKED: R. W. J. R.

EXAMINED: R. W. J. R.
 CHIEF ENGINEER OF DESIGN

SECTION NUMBER	Sheet No.	Total Sheets	Drawn
053	053-14-101	14	27

CONTRACT 14-253-5FR
 FLOOD CONTROL PROJECT ON
 MIDLOTHIAN CREEK IN ROBBINS, ILLINOIS (RE-BID)
 LITTLE CALUMET RIVER WATERSHED
 KEDZIE AVE MAIN DRAIN
 SHEET 14

Sheet Number:
R-007

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