

CONSTRUCTION DRAWINGS FOR PUBLIC IMPROVEMENTS

WARRIOR RIDGE

AS-BUILTS

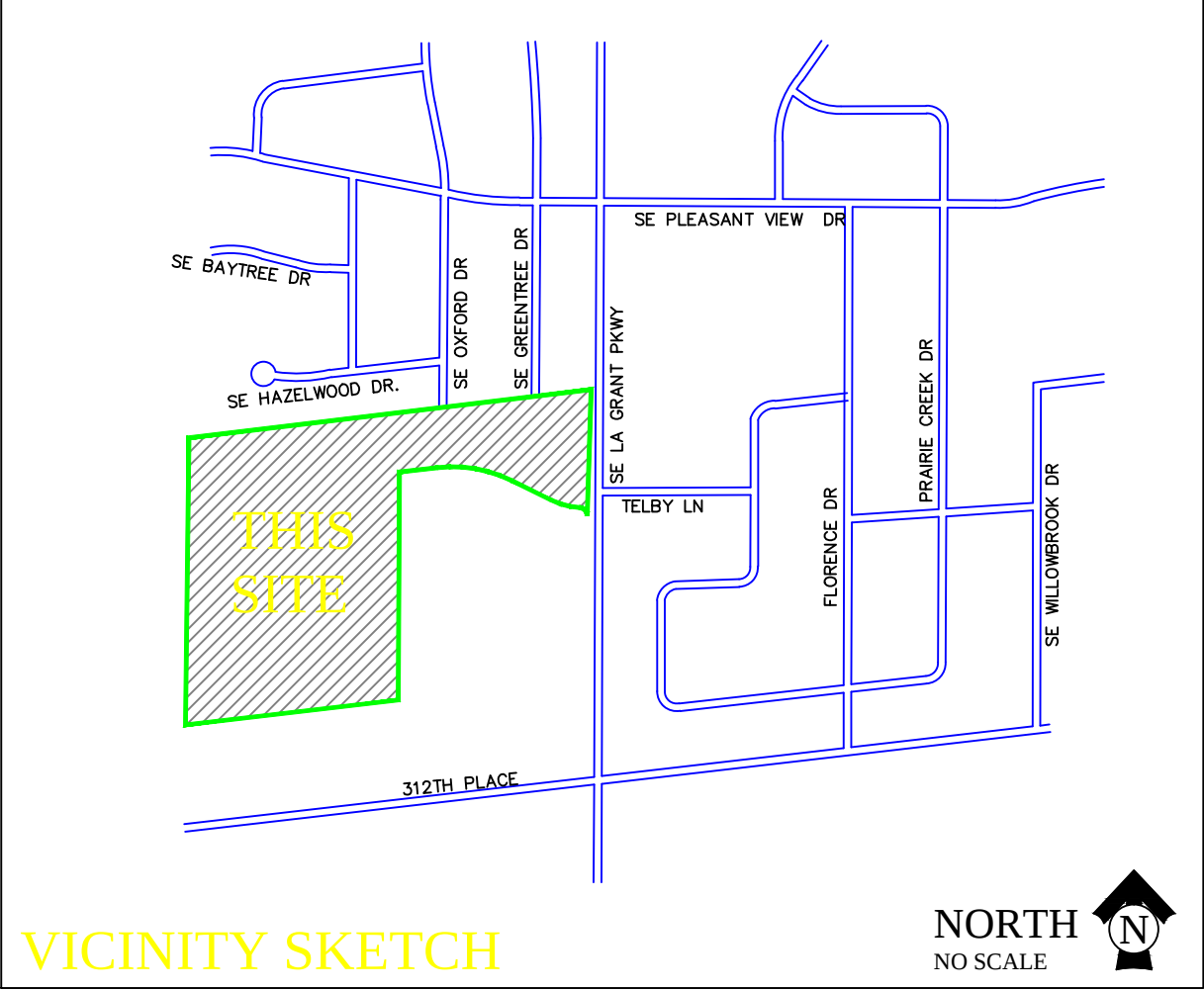
WAUKEE

STORM WATER POLLUTION PREVENTION PLAN

SITE DESCRIPTION	SE 1/4 NW 1/4 SEC 11--80--24
Location: Part Sec. 5, T78N, R26W. Nature of Construction Activity: Residential development. Areas: Total site area = 17.34 acres Site area affected = 20.7 acres Runoff coefficient = 0.40 (rational method) Approximate slopes anticipated: 3:1, or flatter. Runoff from this project will flow into unnamed ditches which will flow into the Sugar Creek.	
Erosion and sediment controls - Stabilization practices - Existing vegetation is preserved whenever possible. - Permanent seeding and/or sodding. - Structural practices - Silt fences - Drainage swales - Rock outlet protection (riprap) - Storm water management - Infiltration of runoff onsite. - Velocity dissipation devices at discharge locations to provide non-erosive velocity flows. - Waste disposal - All building material wastes must be removed from the site. - Off-site vehicle tracking of sediments shall be minimized.	
MAINTENANCE - Maintain effective operating conditions of all protective measures identified in this plan. - Silt fencing is cleaned when they have lost 50% of their capacity. - Drainage swales remain undisturbed. - Rock outlet protection (riprap) remains intact. - Rock spilled debris by the end of day or prior to rain event.	
INSPECTIONS - Qualified personnel shall inspect disturbed areas of the construction site that have not been finally stabilized at least once every seven calendar days and within 24 hours of the end of a storm that is 0.5 inches or greater. - Inspect site for evidence of, or the potential of, pollutants entering the drainage system from stored materials. - Observe erosion and sediment controls to ensure that they are operating correctly. - Locations where vehicles enter or exit the site shall be inspected for evidence of off-site sediment tracking. - Inspect discharge locations to ascertain whether erosion control measures are effective in preventing significant impacts to receiving waters. - Any modifications to the plan as a result of an inspection shall be implemented within 7 calendar days of the inspection. - An inspection report shall be prepared and retained as part of the prevention plan until project termination, this report will contain the following: - A summary of the scope of the inspection. - Qualifications of the personnel making the inspection. - Major observations relating to the implementation of the prevention plan. - Any actions taken. - Signature.	
NON--STORM WATER DISCHARGES - Water main flushing - Flushed water will be discharged into the storm sewer system where, when discharged, it will undergo erosion and sediment controls consisting of: - Rock outlet protection (riprap) - Silt fencing - Existing vegetation	
CONTRACTORS The grading contractor shall have the responsibility of implementing the measures contained in this plan.	

EROSION & POLLUTION CONTROL NOTES

- THE SUBCONTRACTOR RESPONSIBLE FOR EROSION AND POLLUTION CONTROL SHALL CARRY OUT THE MEASURES DETAILED ON THIS PLAN.
- CONTROLS MUST BE IN GOOD OPERATING CONDITION UNTIL THE CONSTRUCTION ACTIVITY IS COMPLETE AND FINAL STABILIZATION HAS BEEN REACHED.
- THE SUBCONTRACTOR SHALL INSPECT THE SITE AT MINIMUM ONCE EVERY 7 DAYS AND WITHIN 24 HOURS OF THE END OF A 1/2 INCH OR GREATER RAINFALL. ALL DISTURBED AREAS OF THE SITE, AREAS OF MATERIAL STORAGE, LOCATIONS WHERE VEHICLES ENTER/EXIT THE SITE, ALL OF THE EROSION AND SEDIMENT CONTROLS THAT ARE IDENTIFIED AS PART OF THIS PLAN AND ACCESSIBLE DISCHARGE LOCATIONS MUST BE INSPECTED.
- THE SUBCONTRACTOR IS TO TAKE NECESSARY ACTIONS TO CORRECT DEFICIENCIES FOUND DURING INSPECTIONS AS SOON AS PRACTICAL BUT IN NO CASE LATER THAN 7 DAYS AFTER THE INSPECTION IN WHICH THE DEFICIENCY WAS FOUND.
- THE SUBCONTRACTOR SHALL KEEP LOG AND PREPARE WEEKLY REPORTS DETAILING THE INSPECTIONS AND MEASURES TAKEN TO CORRECT ANY AND ALL DEFICIENCIES FOUND IN THE EROSION AND POLLUTION CONTROL MEASURES. THE REPORTS SHALL CONFORM TO THE STANDARDS SET BY THE IOWA DEPARTMENT OF NATURAL RESOURCES. COPIES OF THESE REPORTS SHALL BE FORWARDED TO THE DEVELOPER AND TO COOPER CRAWFORD & ASSOCIATES, L.L.C.
- DURING CONSTRUCTION, IF IT BECOMES EVIDENT THAT A DISTURBED AREA WILL NOT BE DISTURBED FOR 21 DAYS, IT SHALL BE SEEDED BY DAY 7.
- PERMANENT SEEDING TO BE DONE IMMEDIATELY AFTER FINAL GRADING.
- ANY FAILED AREAS OF SEEDING/MULCHING SHALL BE REAPPLIED.
- ANY SOIL OR SPILL WASHED, TRACKED OR DROPPED ONTO ADJOINING RIGHT-OF-WAYS AND PROPERTY WILL BE CLEANED UP BY THE OWNER/CONTRACTOR BY THE END OF THE DAY OR PRIOR TO A RAIN EVENT.
- SILT FENCING TO BE INSPECTED ONCE A WEEK AND AFTER EACH RAINSTORM, LOOK FOR UNDERCUTTING AND FAILURES IN FABRIC. REPLACE/REPAIR AS NECESSARY.
- ADDITIONAL SILT FENCING (TO THAT SHOWN ON THIS PLAN) MAY BE REQUIRED IN AREAS WHERE EROSION IS EVIDENT.
- SILT FENCING TO BE CLEANED UP WHEN THEY HAVE LOST 50% OF THEIR CAPACITY.
- ALL INTAKES SHALL HAVE SILT FENCING PRIOR TO PAVING AND INLET FILTERS AFTER PAVING. BELOW GRADE INLET PROTECTION REQUIRED FOR ALL PUBLIC STREETS. THESE FILTERS REMAIN IN PLACE UNTIL THE SITE HAS A PERMANENT PERENNIAL GROUND COVER.
- ALL INTAKES SHALL BE COVERED DURING CONSTRUCTION TO PREVENT SEDIMENTATION DEPOSITS WITHIN THE STORM SEWER.
- IN THE EVENT THAT SEEDING/MULCHING DOES NOT OCCUR PRIOR TO WINTER, ALL DISTURBED AREAS WILL BE MULCHED.
- NO BORROW/SPOILS SITES ARE ANTICIPATED.



VICINITY SKETCH

GRADING NOTES

- ALL DIMENSIONS ARE TO BACK OF CURB, OUTSIDE OF BUILDING WALL, AND TO PROPERTY LINES.
- THE LOCATIONS AND DIMENSIONS SHOWN ON THE PLANS FOR EXISTING FACILITIES ARE IN ACCORDANCE WITH AVAILABLE INFORMATION WITHOUT UNCOVERING AND MEASURING. THE ENGINEER DOES NOT GUARANTEE THE ACCURACY OF THIS INFORMATION OR THAT ALL EXISTING UNDERGROUND FACILITIES ARE SHOWN. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO CONTACT ALL PUBLIC AND/OR PRIVATE UTILITIES SERVING THE AREA TO DETERMINE THE PRESENT EXTENT AND EXACT LOCATION OF THEIR FACILITIES BEFORE BEGINNING WORK.
- THE CONTRACTOR IS REQUIRED TO TAKE DUE PRECAUTIONARY MEASURES TO PROTECT THE UTILITIES OR STRUCTURES AT THE SITE. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE OWNERS OF UTILITIES OR STRUCTURES CONCERNED BEFORE STARTING WORK. THE CONTRACTOR SHALL NOTIFY THE PROPER UTILITY IMMEDIATELY UPON BREAKING OR DAMAGE TO ANY UTILITY LINE OR APPURTENANCE, OR THE INTERRUPTION OF THEIR SERVICE. HE SHALL NOTIFY THE PROPER UTILITY INVOLVED. IF EXISTING UTILITY LINES ARE ENCOUNTERED THAT CONFLICT IN LOCATION WITH NEW CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY THE ENGINEER SO THAT THE CONFLICT MAY BE RESOLVED.
- STRIP TOPSOIL FROM ALL AREAS WHICH ARE TO BE FILLED OR CUT.
- STOCKPILE SUFFICIENT TOPSOIL RESPREAD A MINIMUM OF 8-INCHES ON UNPAVED AREAS.
- ALL AREAS TO RECEIVE FILL TO BE BENCHMARKED.
- PREPARE BOTTOM OF BENCH FOR FILL BY DISCING TO A DEPTH OF 6-INCHES.
- ALL SITE GRADING FILL SHALL BE COMPACTED TO A DENSITY THAT IS NOT LESS THAN 95% STANDARD PROCTOR.
- THE MOISTURE CONTENT OF THE FILL MATERIAL SHALL BE BETWEEN 0-4%.
- MAINTAIN ALL CUT AND FILL AREAS FOR SURFACE DRAINAGE AT ALL TIMES.
- FINAL GRADES WITHIN PAVED AREAS SHALL BE WITHIN 0.1' OF PLAN GRADE, ALL OTHER AREAS TO BE WITHIN 0.2' OF PLAN GRADE.
- A MINIMUM OF ONE FOOT OF COMPACTED COHESIVE SUBGRADE SHALL BE PROVIDED BENEATH ALL PAVEMENTS.
- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH CITY OF WAUKEE STANDARD SPECIFICATIONS AND THE 2012 STATEWIDE URBAN DESIGN AND SPECIFICATIONS.
- EXISTING TREES WILL BE SAVED TO THE EXTENT POSSIBLE TO ACCOMMODATE GRADING, UTILITY AND STREET CONSTRUCTION.
- ALL WORK WITHIN PUBLIC R.O.W., CONNECTION TO PUBLIC IMPROVEMENTS, AND ALL WORK ASSOCIATED WITH PUBLIC IMPROVEMENTS SHALL COMPLY WITH WAUKEE STANDARD SPECIFICATIONS INCLUDING ALL APPLICABLE PERMITS AND THE 2012 STATEWIDE URBAN DESIGN AND SPECIFICATIONS.

NOTES

- ONE WEEK PRIOR TO CONSTRUCTION THE CONTRACTOR SHALL NOTIFY:
 - WAUKEE CITY ENGINEER
 - TTT L.L.C.
 - COOPER CRAWFORD & ASSOCIATES, L.L.C.
 - IOWA ONE-CALL
- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH WAUKEE STANDARD SPECIFICATIONS AND THE 2012 STATEWIDE URBAN DESIGN AND SPECIFICATIONS.
- THE CONTRACTOR SHALL CONTACT ONE CALL TO VERIFY THE LOCATION AND PROTECT ALL UTILITIES AND STRUCTURES. DAMAGE TO UTILITIES AND STRUCTURES SHALL BE REPAIRED BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE TO THE SATISFACTION OF THE OWNER.
- ALL TRENCH BACKFILL SHALL BE 95% STANDARD PROCTOR DENSITY. THE MOISTURE CONTENT OF THE FILL MATERIAL SHALL BE BETWEEN 0-4%.
- THE CONTRACTOR SHALL RECONNECT ALL FIELD TILE INTERCEPTED DURING CONSTRUCTION.
- STRIP TOP SOIL FROM ALL AREAS WHICH ARE TO BE FILLED OR CUT.
- STOCKPILE SUFFICIENT TOPSOIL TO RESPREAD A MINIMUM OF 8-INCH ON UNPAVED AREAS.
- MAINTAIN ALL CUT AND FILL AREAS FOR SURFACE DRAINAGE AT ALL TIMES.
- ALL AREAS TO RECEIVE FILL TO BE BENCHMARKED.
- PREPARE BOTTOM OF BENCH FOR FILL BY DISCING TO A DEPTH OF 6 INCHES.
- ALL SITE FILL SHALL BE COMPACTED TO A DENSITY THAT IS NOT LESS THAN 95% STANDARD PROCTOR DENSITY.
- THE MOISTURE CONTENT OF THE FILL MATERIAL SHALL BE BETWEEN 0-4%.
- FINAL GRADES WITHIN THE STREET RIGHT-OF-WAY SHALL BE WITHIN .1' OF PLAN GRADE, ALL OTHER AREAS TO BE WITHIN .2' OF PLAN GRADE.
- THE GRADING CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION OF ALL SILT FENCES.
- ALL AREAS WHICH ARE DISTURBED SHALL BE SEEDDED WITH EROSION CONTROL MIX, FERTILIZED, AND MULCHED.
- INSTALL SILT FENCES AS SHOWN.
- ADDITIONAL SILT FENCES OR OTHER SEDIMENT AND EROSION CONTROL MEASURES MAY BE REQUIRED IF EROSION EXISTS.
- THE ENGINEER SHALL BE RESPONSIBLE FOR PROVIDING THE CITY OF WAUKEE WITH THE UTILITY LOCATION.
- THE CONTRACTOR SHALL MARK UTILITY SERVICES WITH 2x4 FROM CAP TO 1 FOOT ABOVE SURFACE ON SANITARY.
 - SANITARY -- RED
 - STORM -- GREEN
 - WATER -- BLUE
- THE CONTRACTOR SHALL VERIFY THE UTILITY LOCATES.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR RECORDING THE AS-BUILT LOCATION OF ALL SERVICES. PROVIDE A COPY TO THE CITY OF WAUKEE.
- ALL SANITARY SEWER SERVICES AND 8-INCH STUB-OUTS SHALL BE CAPPED.
- PROVIDE SANITARY SEWER SERVICE RISER AS REQUIRED BY THE CITY OF WAUKEE.
- PLUMBING CONTRACTOR SHALL VERIFY SERVICE STUB-OUT ELEVATIONS ON LOTS PRIOR TO HOUSE CONSTRUCTION TO ENSURE BASEMENT FLOOR ELEVATIONS WILL PROVIDE ADEQUATE FALL IN SERVICE PIPE (2% MINIMUM SLOPE).
- ALL FIRE HYDRANTS SHALL BE 3' FROM WATER MAIN EXCEPT WHERE CONFLICTS WITH SIDEWALKS OCCUR.
- CONTRACTOR SHALL VERIFY PRIOR TO CONSTRUCTION THAT FIRE HYDRANTS WILL HAVE 18-INCH CLEARANCE FROM THE HYDRANT TO THE SIDEWALK.
- HYDRANTS, MANHOLE COVERS, AND VALVE BOXES SHALL BE SET TO CONFORM TO FINISHED PAVEMENT ELEVATIONS.
- WATER MAIN TO HAVE 6' BURY TYPICAL EXCEPT AT CRITICAL CROSSINGS.
- ALL INTAKES SHALL HAVE TYPE 'Y' CASTINGS.
- ALL ELEVATIONS ARE PROPOSED FINISHED GRADE AT TOP OF CURB UNLESS OTHERWISE NOTED.
- ALL REINFORCED STEEL SHALL BE EPOXY COATED.
- SUBGRADE TO BE 12-INCH THICK EARTH COMPACTED TO 95% MAX. DENSITY WITH MOISTURE CONTENT BETWEEN 0-4%.
- USE I.D.O.T. C-4 MIX ON ALL STREETS.
- DURING SUBGRADE PREPARATION, IN FILL AREAS, GRADE SHALL BE PROOF-ROLLED PRIOR TO PLACEMENT OF ONE FOOT SUB-GRADE AND COMPACTION. NOTIFY SOILS ENGINEER TO PROVIDE ON-SITE INSPECTION OF PROCESS.
- STORM SEWER AND SANITARY SEWER SHALL BE CLEANED AND VIDEO TESTED.
- ALL DISTURBED AREAS WITHIN EXISTING STREET RIGHT-OF-WAY OR ON PRIVATE PROPERTY SHOULD BE SODDED.
- THE CITY OF WAUKEE SHALL BE NOTIFIED 48 HOURS PRIOR TO WATERMAIN SHUTDOWN.
- ALL DISTURBED PROPERTY PINS AND SECTION CORNERS TO BE RESET BY A LICENSED LAND SURVEYOR.
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE A LIST OF CONSTRUCTION MATERIALS TO THE WAUKEE PUBLIC WORKS DEPARTMENT PRIOR TO THE START OF CONSTRUCTION.
- ALL ESTABLISHED LAWNS THAT ARE DISTURBED WILL BE SODDED.

OWNER

ALWAYS R'S HOLDINGS L.L.C.
33082 UTE AVE
WAUKEE, IA 50263

DEVELOPER

TTT L.L.C.
33082 UTE AVE
WAUKEE, IA 50263

QUANTITIES

SANITARY SEWER

3,091 L.F.	8-INCH SANITARY SEWER PVC TRUSS PIPE
14 EA.	TYPE 'SW-301' MANHOLE SERVICES
45 EA.	*SANITARY SEWER VIDEO TESTING

WATER

3,282 L.F.	8-INCH C900 WATERMAIN
10 EA.	HYD., TEE, & 6-INCH VALVE
10 EA.	8-INCH VALVE
4 EA.	8"x8"x8" TEE
1 EA.	12"x12"x8" TAPPING TEE AND VALVE
6 EA.	11.25' BEND
1 EA.	22.5' BEND
6 EA.	45' BEND
45 EA.	SERVICES

STORM SEWER

607 L.F.	8-FOOTING DRAIN
2,413 L.F.	15-INCH RCP CLASS III
233 L.F.	18-INCH RCP CLASS III
36 L.F.	24-INCH RCP CLASS III
178 L.F.	30-INCH RCP CLASS III
12 EA.	TYPE 'SW-501' INTAKE
11 EA.	TYPE 'SW-503' INTAKE
10 EA.	TYPE 'SW-401' MANHOLE
3 EA.	15-INCH F.E.S.
2 EA.	24-INCH F.E.S.
1 EA.	30-INCH F.E.S.
45 TONS	CLASS 'D' RIP-RAP SERVICES
45 EA.	

PAVING

159 S.Y.	8-INCH P.C.C. W/ CD BASKETS
9,896 S.Y.	7-INCH NON-REINFORCED P.C.C.
12,766 S.Y.	SUBGRADE PREP
372 L.F.	5-INCH 10' TRAIL ALONG S.E. L.A. GRANT PARKWAY

OTHER

5,089 L.F.	SILT FENCE OR APPROVED FILTER SOCK
18.5 AC.	SEEDING

LEGEND

EXISTING/PROPOSED	
	PLAT BOUNDARY
	SANITARY SEWER & SIZE
	STORM SEWER & SIZE
	WATER MAIN & SIZE
	MANHOLE
	STORM INTAKE
	FIRE HYDRANT
	VALVE
	FLARED END SECTION

CERTIFICATION

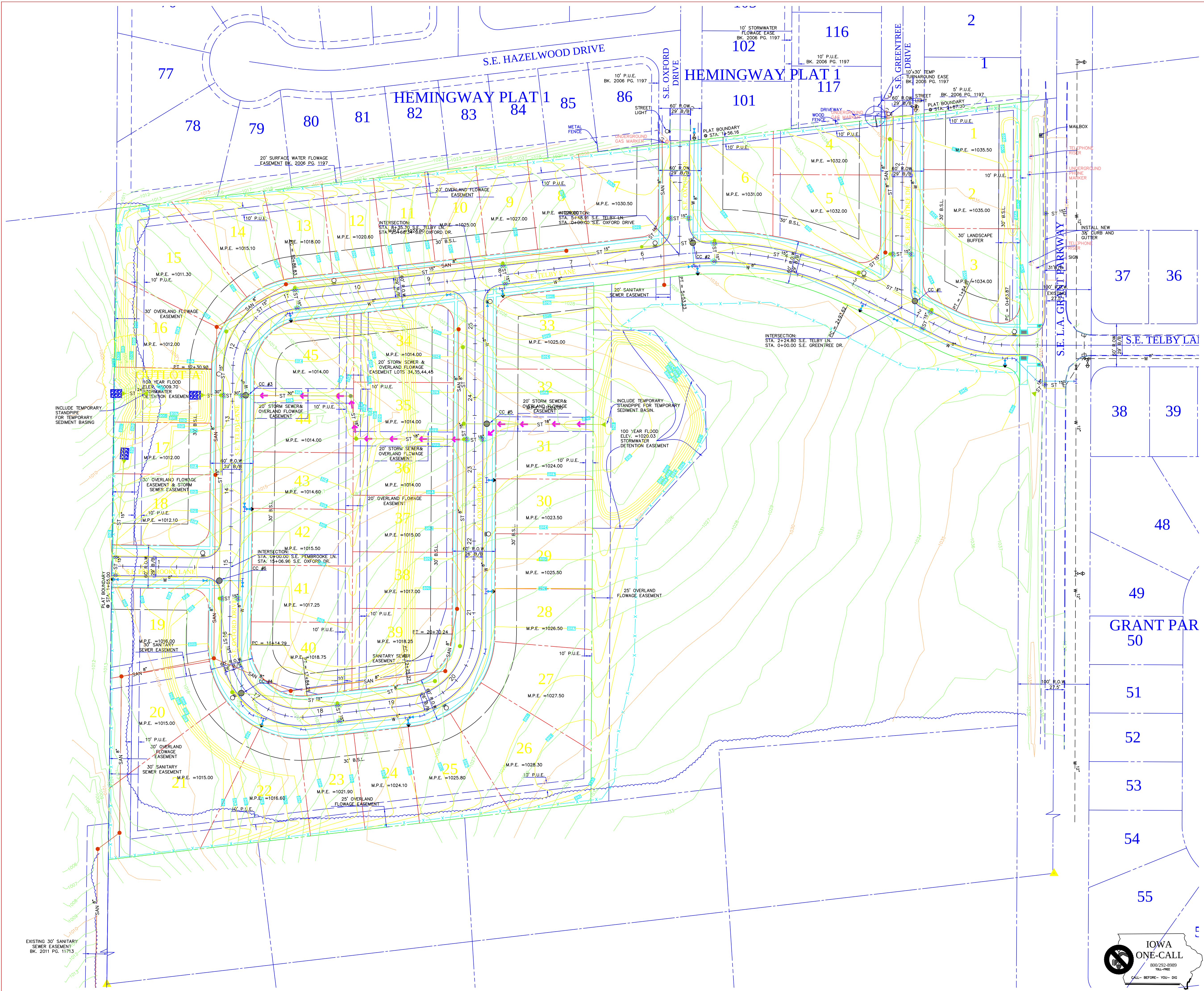
	I HEREBY CERTIFY THAT THIS ENGINEERING DOCUMENT WAS PREPARED BY ME OR UNDER MY DIRECT PERSONAL SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF IOWA.
BRADLEY R. COOPER, IOWA LICENSE NO. 12980 MY LICENSE RENEWAL DATE IS DECEMBER 31, 2013 PAGES OR SHEETS COVERED BY THIS SEAL: (SHEETS 1-13)	

COOPER CRAWFORD & ASSOCIATES, L.L.C. CIVIL ENGINEERS	
475 S. 50th STREET, SUITE 800, WEST DES MOINES, IOWA 50265 PHONE: (515) 224-1344 FAX: (515) 224-1345	
DATE: 3-8-2012 REVISIONS: 4-10-2012 4-11-2012	JOB NUMBER CC 1347
AS-BUILTS: 7-25-2012	SHEET 1 OF 13
COVER SHEET WARRIOR RIDGE	

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13	DETAILS
	OVERLAND FLOWAGE ELEVATIONS

NOTES
1. REMOVE EXISTING FIELD FENCE ON THE NORTH PROPERTY LINE.



- LEGEND
- | | |
|--------------------------|--------------------------|
| EXISTING/PROPOSED | PLAT BOUNDARY |
| ST 18" | STORM SEWER & SIZE |
| SAN 8" | SANITARY SEWER & SIZE |
| W 8" | WATER MAIN & SIZE |
| MANHOLE | MANHOLE |
| STORM INTAKE | STORM INTAKE |
| FIRE HYDRANT | FIRE HYDRANT |
| VALVE | VALVE |
| F.E.S. | F.E.S. |
| EXISTING CONTOURS | EXISTING CONTOURS |
| PROPOSED CONTOURS | PROPOSED CONTOURS |
| SILT FENCE OR | SILT FENCE OR |
| APPROVED FILTRATION SOCK | APPROVED FILTRATION SOCK |
| LIGHT POLE | LIGHT POLE |

COOPER CRAWFORD

& ASSOCIATES, L.L.C.

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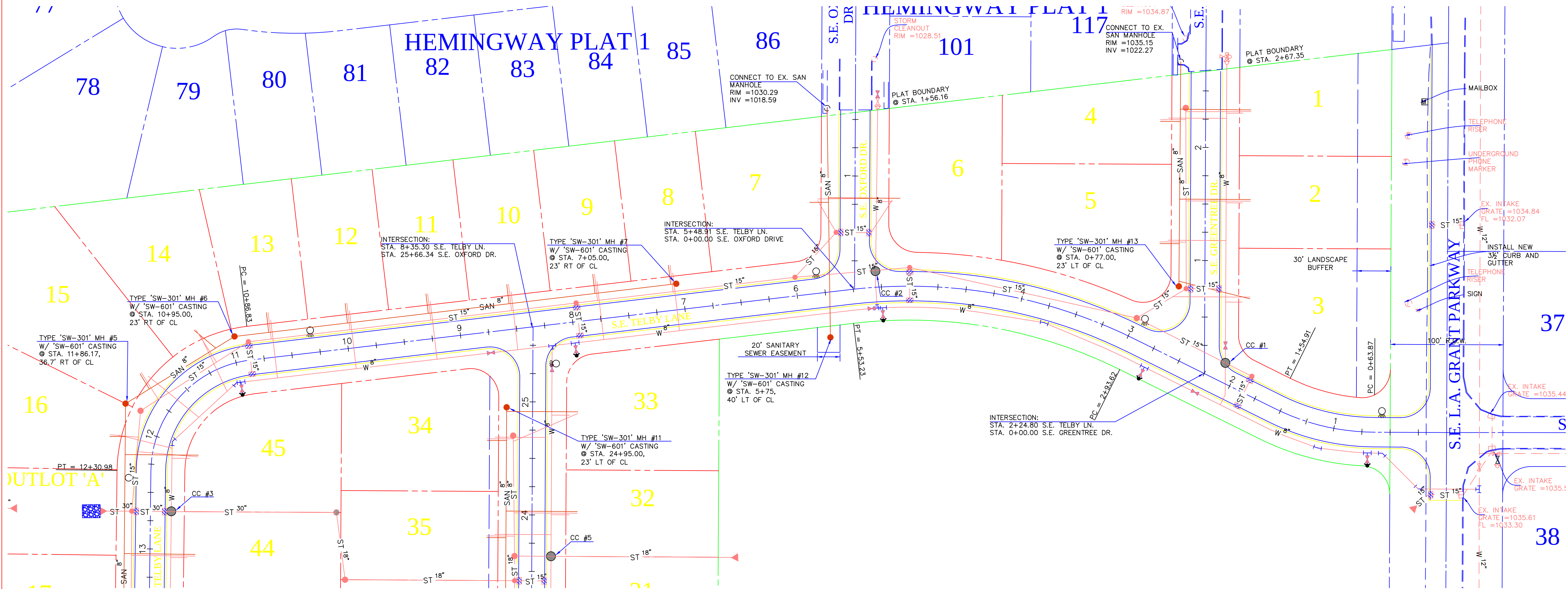
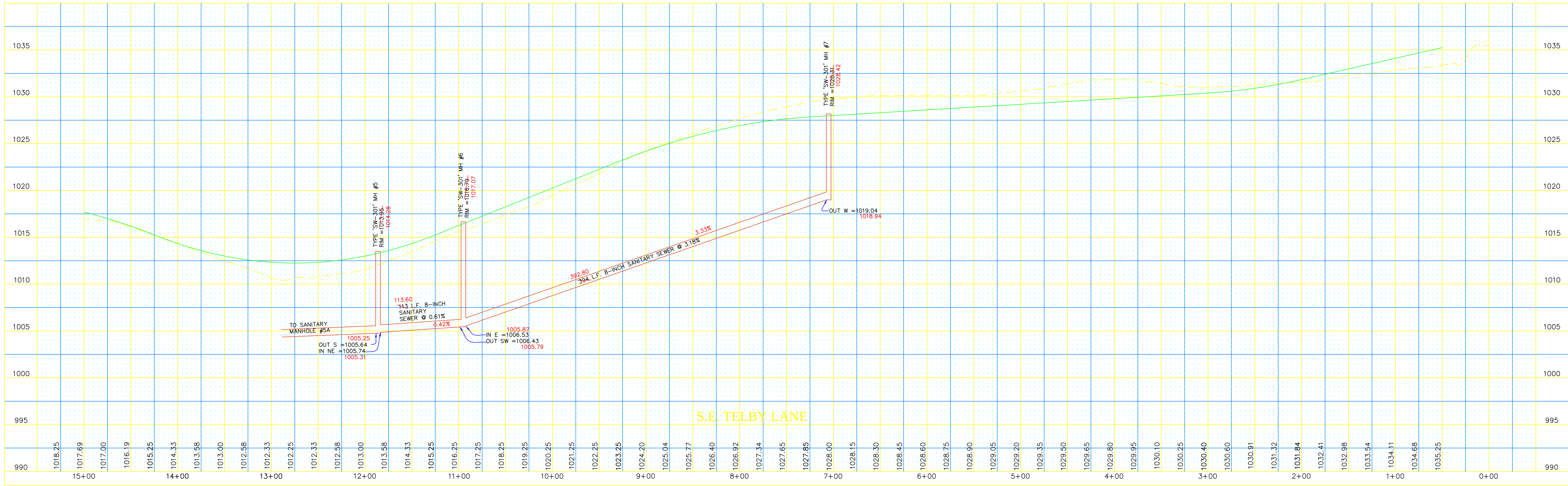
GRADING PLAN
WARRIOR RIDGE

JOB NUMBER

CC 1347

SHEET
2 OF 13





LEGEND

EXISTING/PROPOSED

- PLAT BOUNDARY
- SANITARY SEWER & SIZE
- STORM SEWER & SIZE
- WATER MAIN & SIZE
- MANHOLE
- STORM INTAKE
- FIRE HYDRANT
- VALVE
- FLARED END SECTION

IOWA ONE-CALL

800/292-8989
TOLL-FREE
CALL - BEFORE YOU DIG

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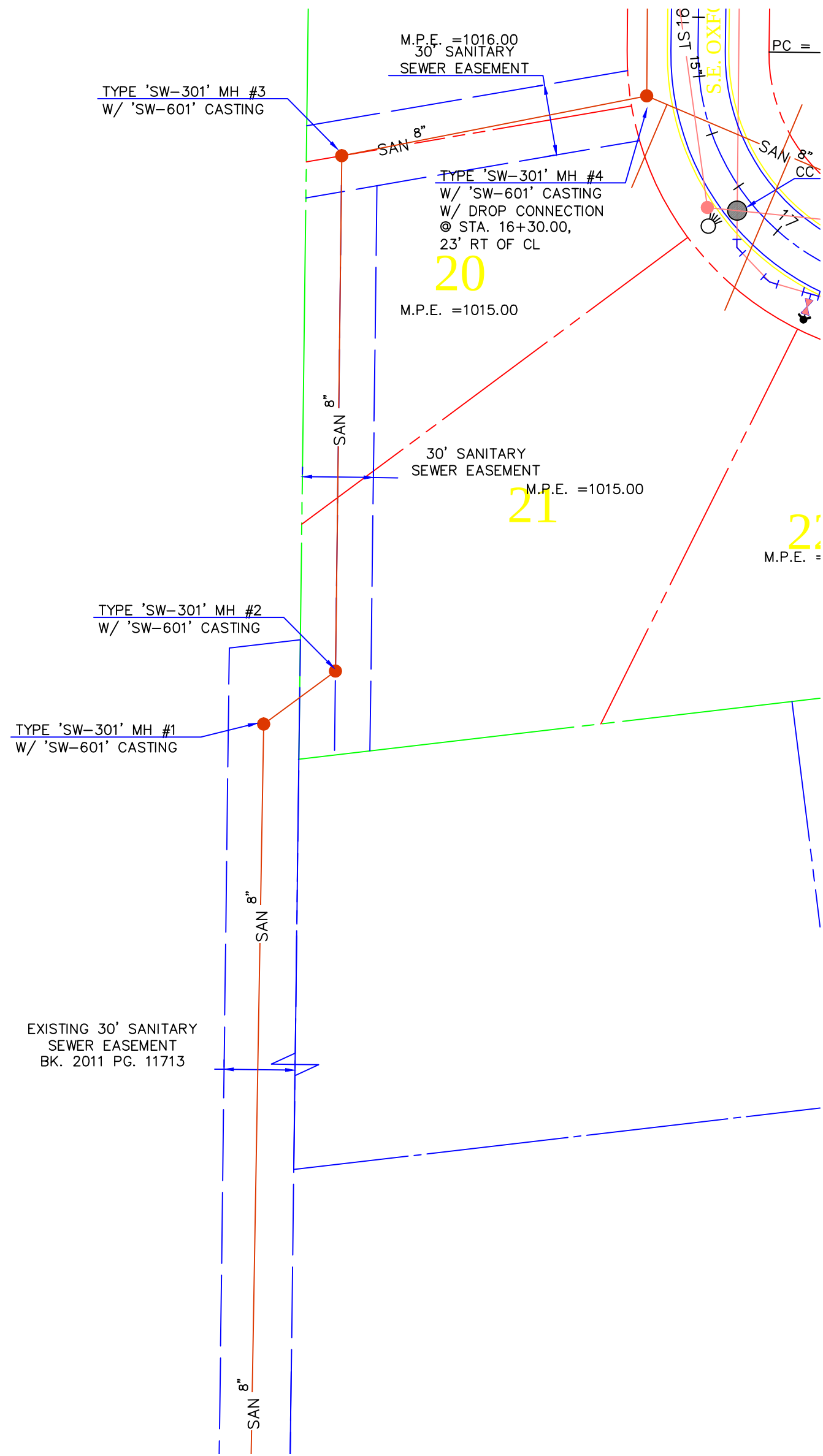
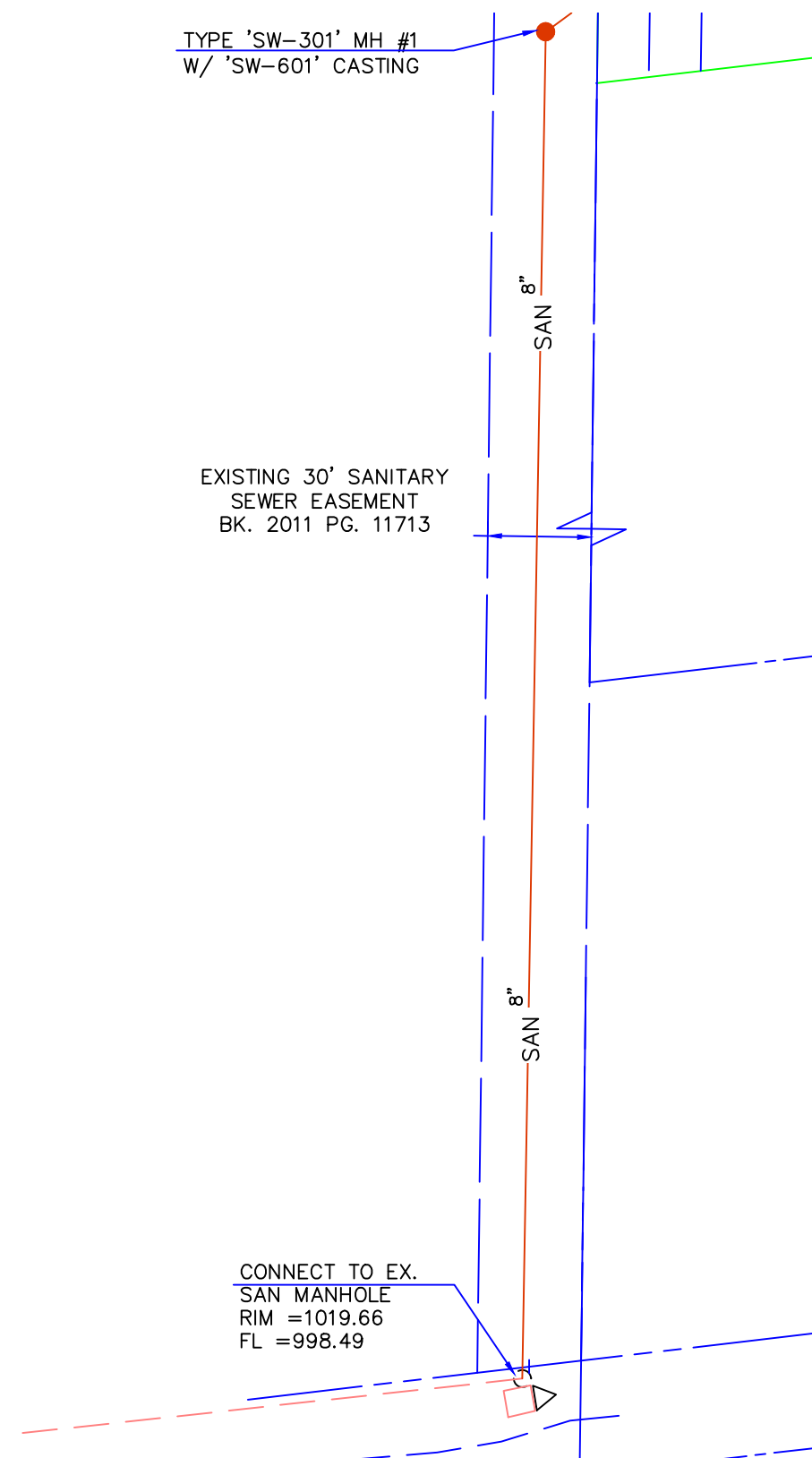
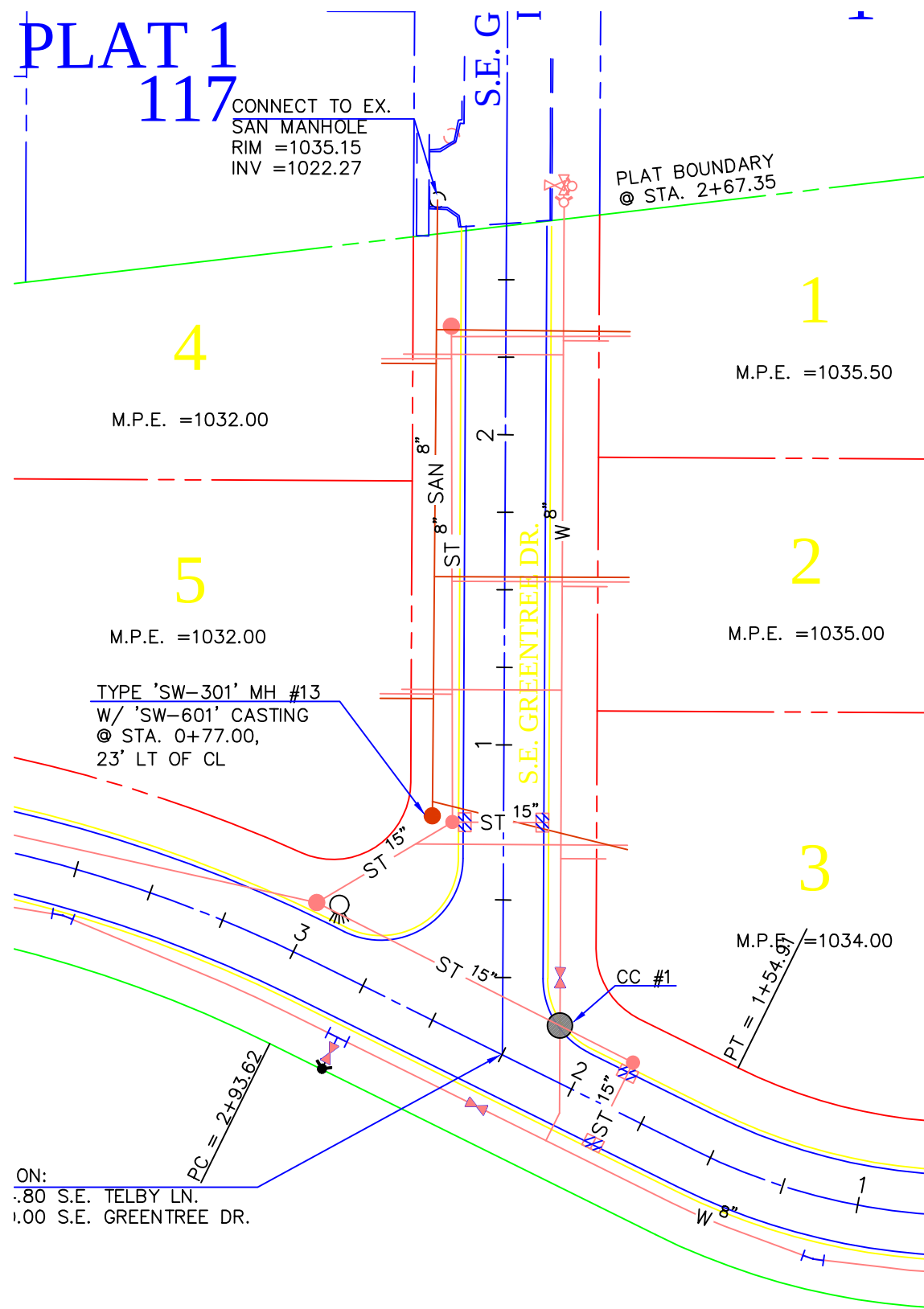
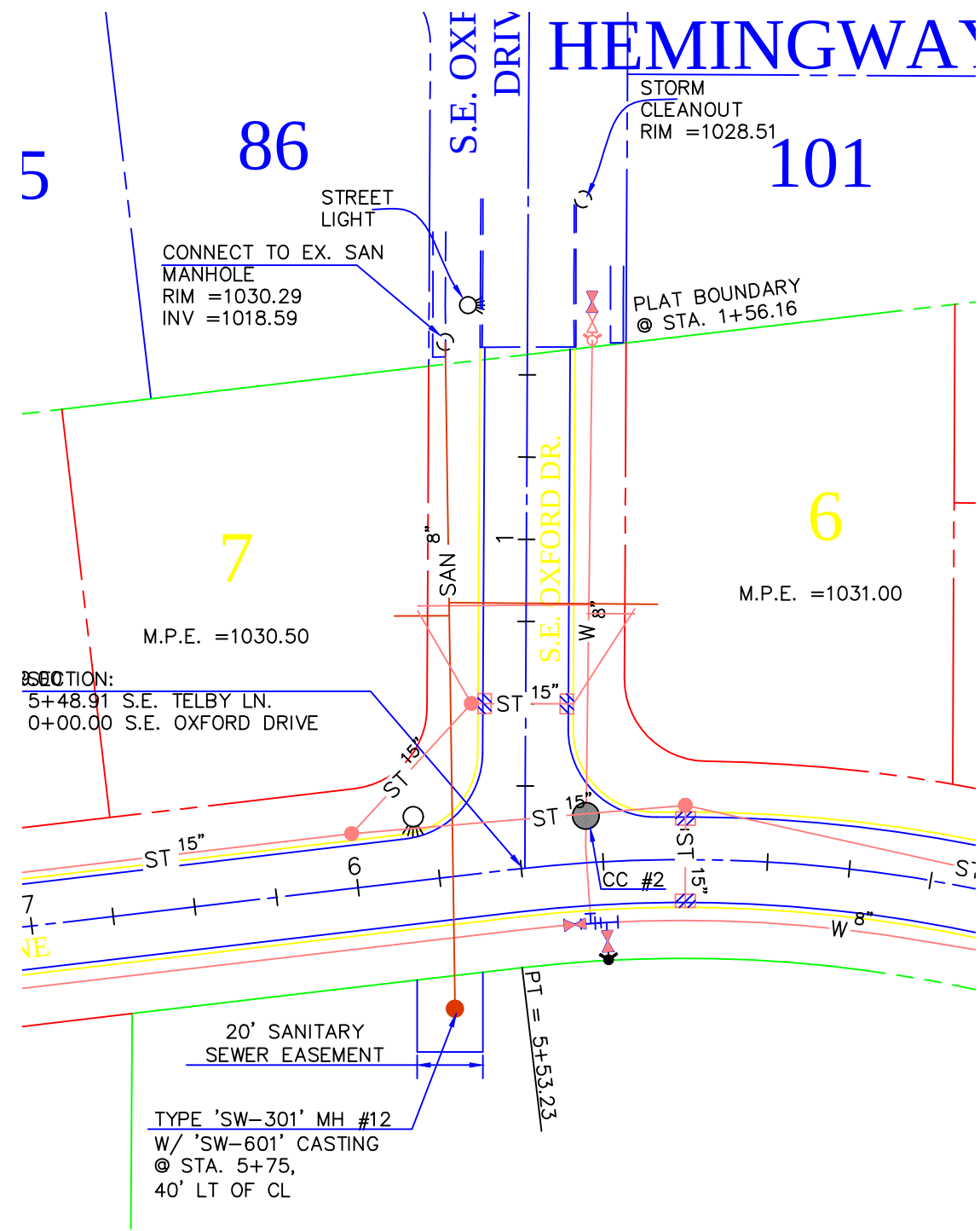
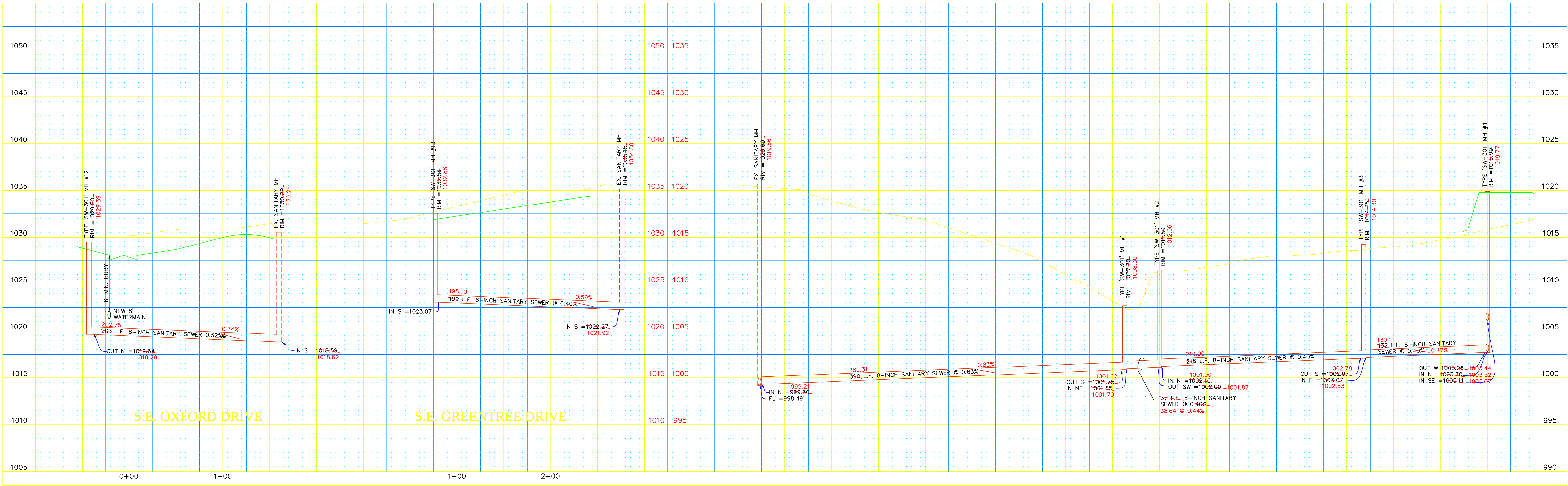
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SANITARY SEWER WARRIOR RIDGE

SHEET 3 OF 13



NOTES

1. COORDINATE WITH THE HOMEOWNERS IN THE HEMINGWAY SUBDIVISION FOR MANHOLE TIE-INS.
2. CORE DRILL AND USE LINK-SEAL AT THE CONNECTION TO THE EXISTING MANHOLE ON S.E. WESTOWN PARKWAY.

LEGEND

EXISTING/PROPOSED

- SAN 8" (dashed line)
- SAN 18" (dashed line)
- ST 18" (dashed line)
- W 8" (dashed line)
- PLAT BOUNDARY (solid line)
- SANITARY SEWER & SIZE (solid line)
- STORM SEWER & SIZE (solid line)
- WATER MAIN & SIZE (solid line)
- MANHOLE (circle with cross)
- STORM INTAKE (circle with cross)
- FIRE HYDRANT (circle with cross)
- VALVE (circle with cross)
- FLARED END SECTION (solid line)

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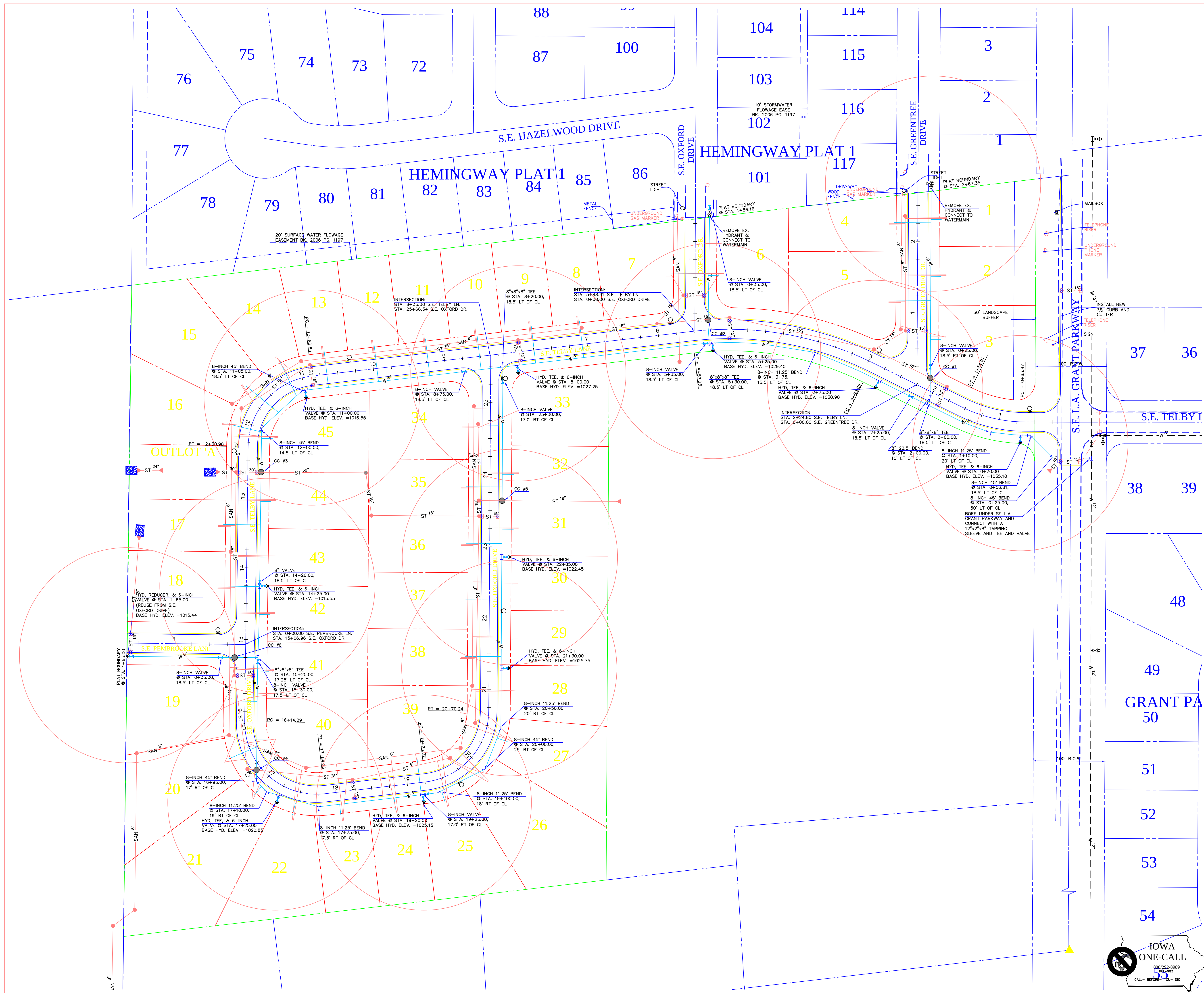
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SANITARY SEWER WARRIOR RIDGE

SHEET 5 OF 13



CRITICAL CROSSINGS	
CC #1	BOTTOM OF STORM =1027.35 TOP OF MAIN =1025.70 MAINTAIN 1.5' VERTICAL CLEARANCE & 6' MIN. BURY
CC #2	BOTTOM OF STORM =1023.70 TOP OF MAIN =1022.05 MAINTAIN 1.5' VERTICAL CLEARANCE & 6' MIN. BURY
CC #3	BOTTOM OF STORM =1007.32 TOP OF MAIN =1005.67 MAINTAIN 1.5' VERTICAL CLEARANCE & 6' MIN. BURY
CC #4	BOTTOM OF STORM =1015.44 TOP OF MAIN =1013.79 MAINTAIN 1.5' VERTICAL CLEARANCE & 6' MIN. BURY
CC #5	BOTTOM OF STORM =1016.04 TOP OF MAIN =1014.39 MAINTAIN 1.5' VERTICAL CLEARANCE & 6' MIN. BURY
CC #6	BOTTOM OF STORM =1013.13 TOP OF MAIN =1011.48 MAINTAIN 1.5' VERTICAL CLEARANCE & 6' MIN. BURY

LEGEND	
EXISTING/PROPOSED	
PLAT BOUNDARY	ST 18"
STORM SEWER & SIZE	SAN 8"
SANITARY SEWER & SIZE	W 8"
WATER MAIN & SIZE	MANHOLE
MANHOLE	STORM INTAKE
STORM INTAKE	FIRE HYDRANT
FIRE HYDRANT	VALVE
VALVE	F.E.S.
F.E.S.	EXISTING CONTOURS
EXISTING CONTOURS	PROPOSED CONTOURS
PROPOSED CONTOURS	SILT FENCE OR
SILT FENCE OR	APPROVED FILTRATION SOCK
APPROVED FILTRATION SOCK	LIGHT POLE

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JOHN

CC

1347

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SHEET

6 OF 13

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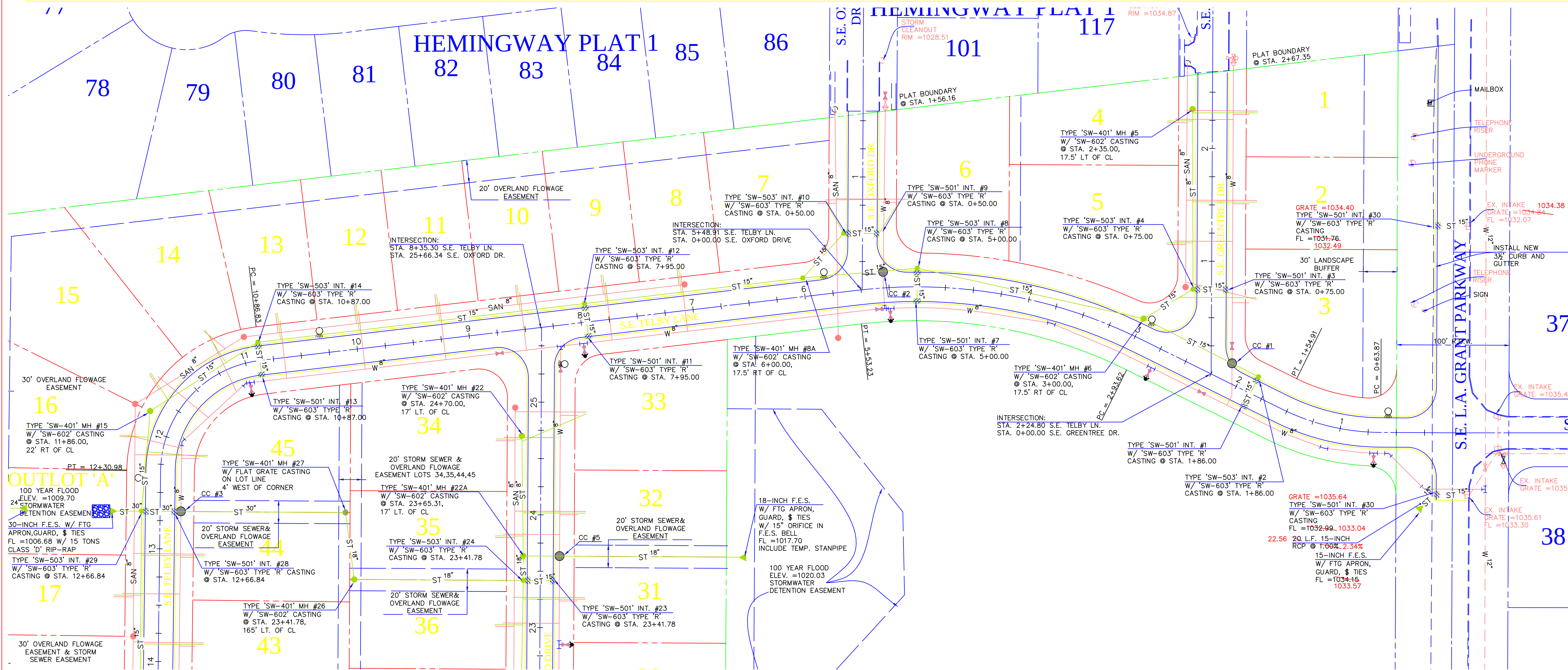
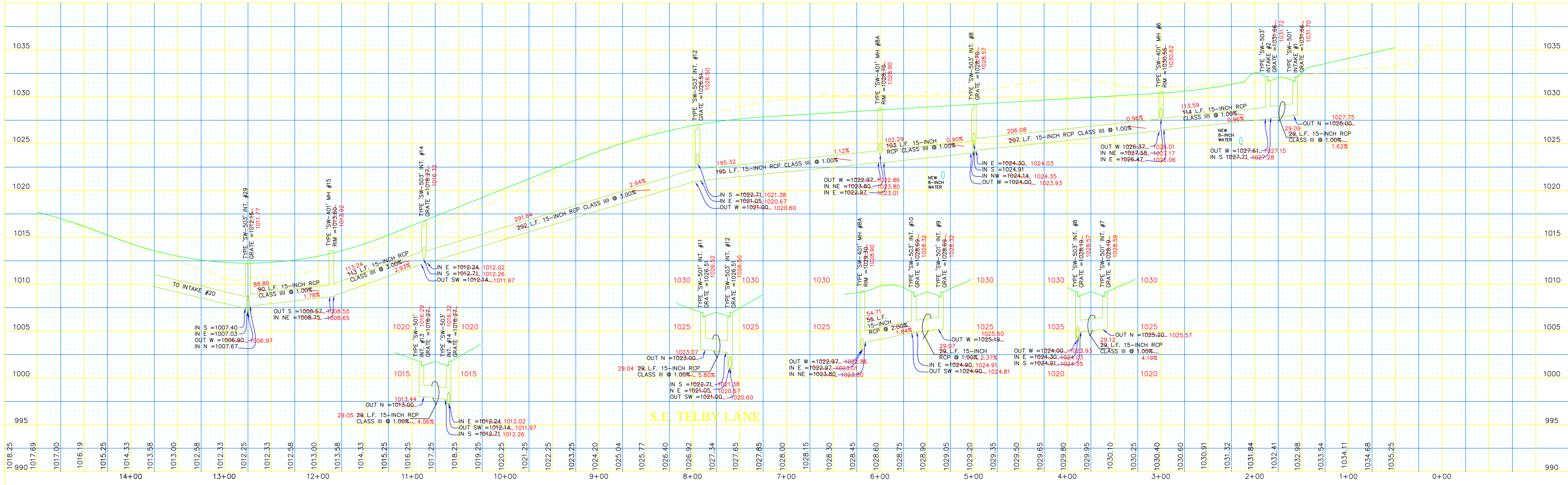
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6 OF 13



CRITICAL CROSSINGS

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CC #4	BOTTOM OF STORM = 1015.44 TOP OF MAIN = 1013.79 MAINTAIN 1.5' VERTICAL CLEARANCE & 6' MIN. BURY
CC #5	BOTTOM OF STORM = 1016.04 TOP OF MAIN = 1014.39 MAINTAIN 1.5' VERTICAL CLEARANCE & 6' MIN. BURY
CC #6	BOTTOM OF STORM = 1013.13 TOP OF MAIN = 1011.48 MAINTAIN 1.5' VERTICAL CLEARANCE & 6' MIN. BURY

LEGEND

EXISTING/PROPOSED

- SAN 8" - SANITARY SEWER & SIZE
- ST 18" - STORM SEWER & SIZE
- W 8" - WATER MAIN & SIZE
- MANHOLE
- STORM INTAKE
- FIRE HYDRANT
- VALVE
- FLARED END SECTION

800/292-0989
TOLL-FREE
CALL - BEFORE - YOU - DIG

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CIVIL ENGINEERS

475 S. 50th STREET, SUITE 800, WEST DES MOINES, IOWA 50265
PHONE: (515) 224-1344 FAX: (515) 224-1345

DATE: 3-8-2012
REVISIONS: 4-10-2012
4-11-2012

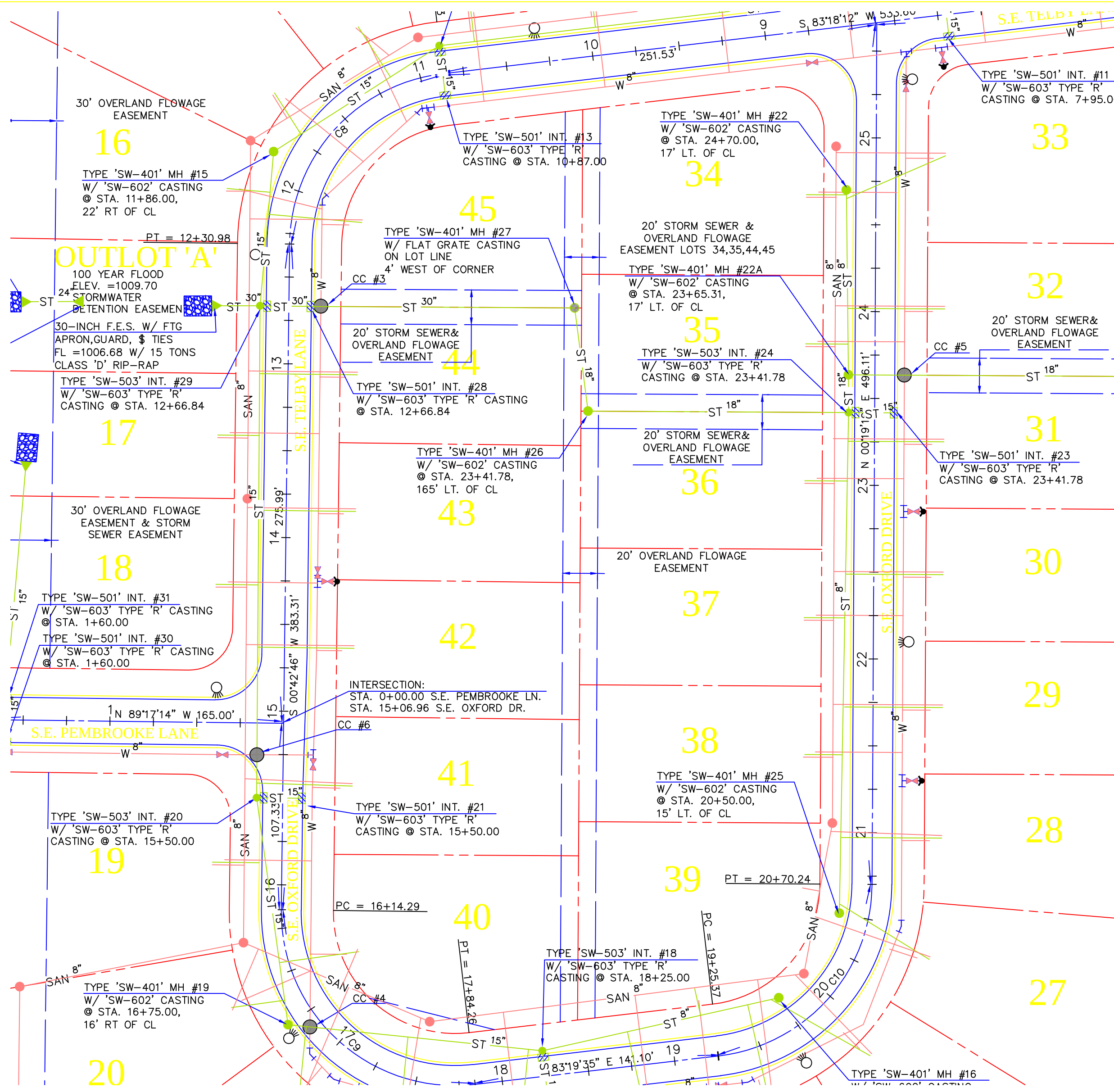
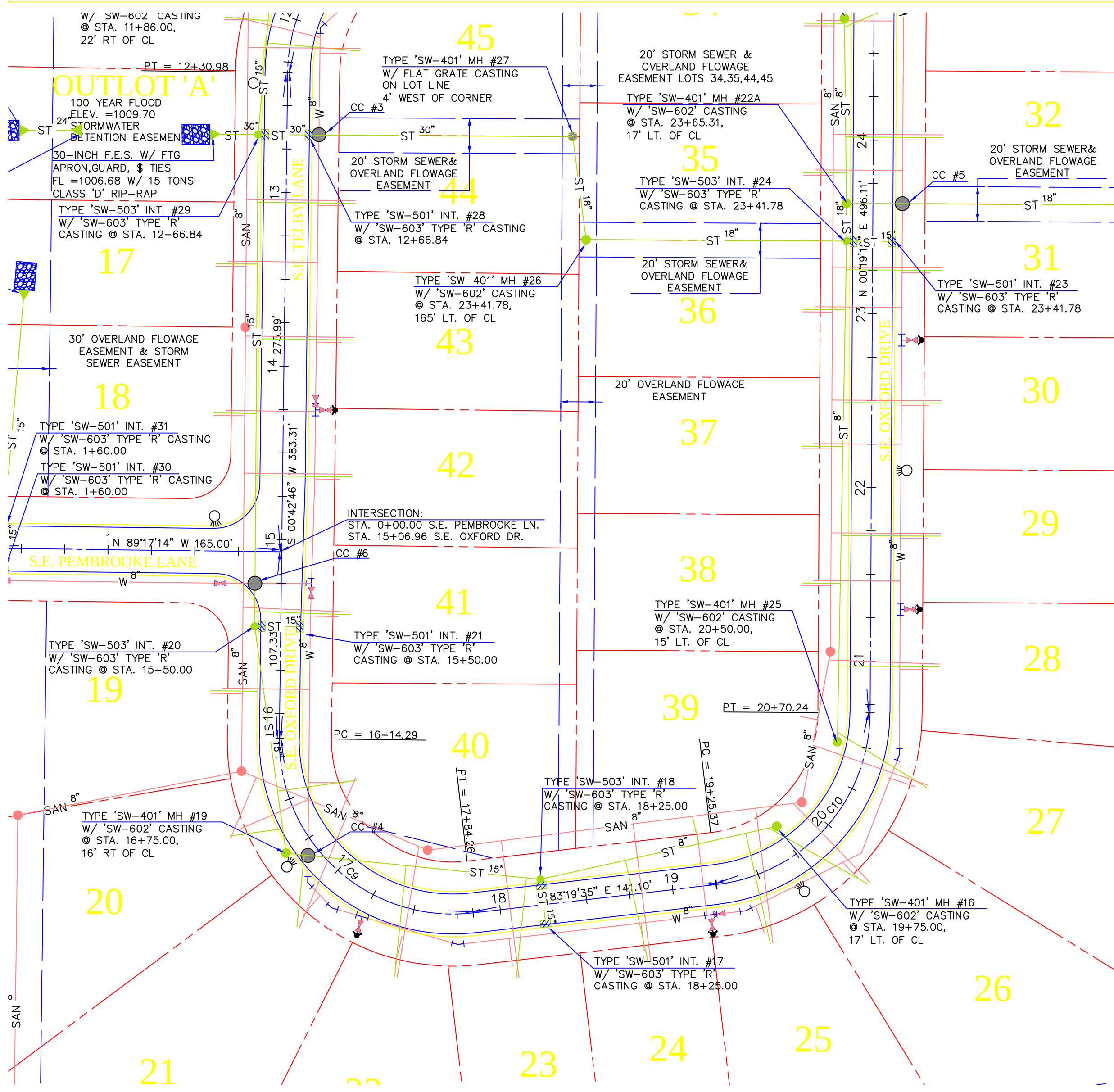
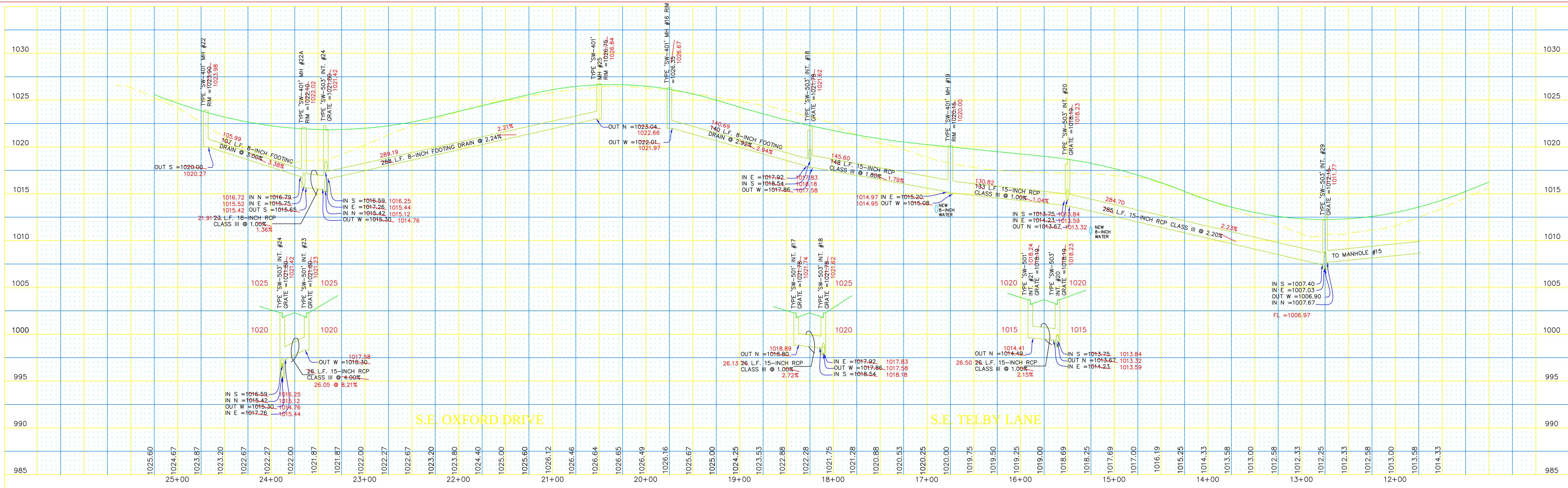
JOHN NUMBER
CC 1347

SHEET
7 OF 13

SCALE: 1"=50'

AS-BUILT: 7-25-2012

STORM SEWER WARRIOR RIDGE



CRITICAL CROSSINGS

CC #1	BOTTOM OF STORM = 1027.35 TOP OF MAIN = 1025.70 MAINTAIN 1.5' VERTICAL CLEARANCE & 6' MIN. BURY
CC #2	BOTTOM OF STORM = 1023.70 TOP OF MAIN = 1022.05 MAINTAIN 1.5' VERTICAL CLEARANCE & 6' MIN. BURY
CC #3	BOTTOM OF STORM = 1007.32 TOP OF MAIN = 1005.67 MAINTAIN 1.5' VERTICAL CLEARANCE & 6' MIN. BURY
CC #4	BOTTOM OF STORM = 1015.44 TOP OF MAIN = 1013.79 MAINTAIN 1.5' VERTICAL CLEARANCE & 6' MIN. BURY
CC #5	BOTTOM OF STORM = 1016.04 TOP OF MAIN = 1014.39 MAINTAIN 1.5' VERTICAL CLEARANCE & 6' MIN. BURY
CC #6	BOTTOM OF STORM = 1013.13 TOP OF MAIN = 1011.48 MAINTAIN 1.5' VERTICAL CLEARANCE & 6' MIN. BURY

LEGEND

EXISTING/PROPOSED

- SAN 8" - PLAT BOUNDARY
- SAN 18" - SANITARY SEWER & SIZE
- ST 18" - STORM SEWER & SIZE
- W 8" - WATER MAIN & SIZE
- MANHOLE
- STORM INTAKE
- FIRE HYDRANT
- VALVE
- FLARED END SECTION

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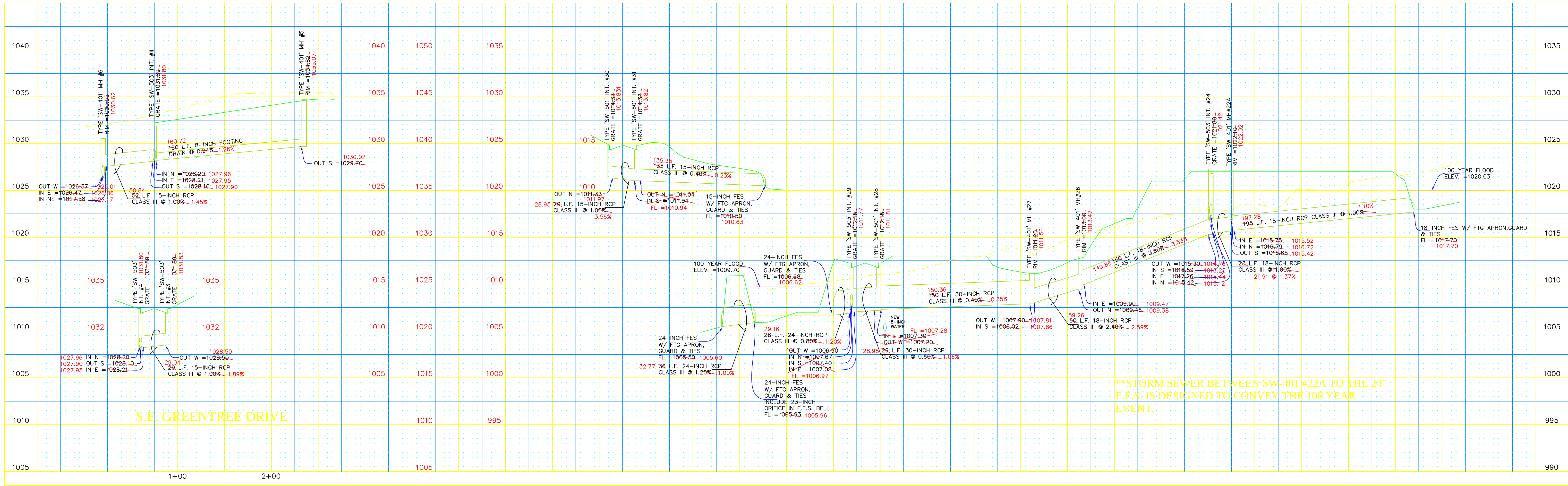
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REVISIONS: 4-10-2012
4-11-2012

JOB NUMBER
CC 1347

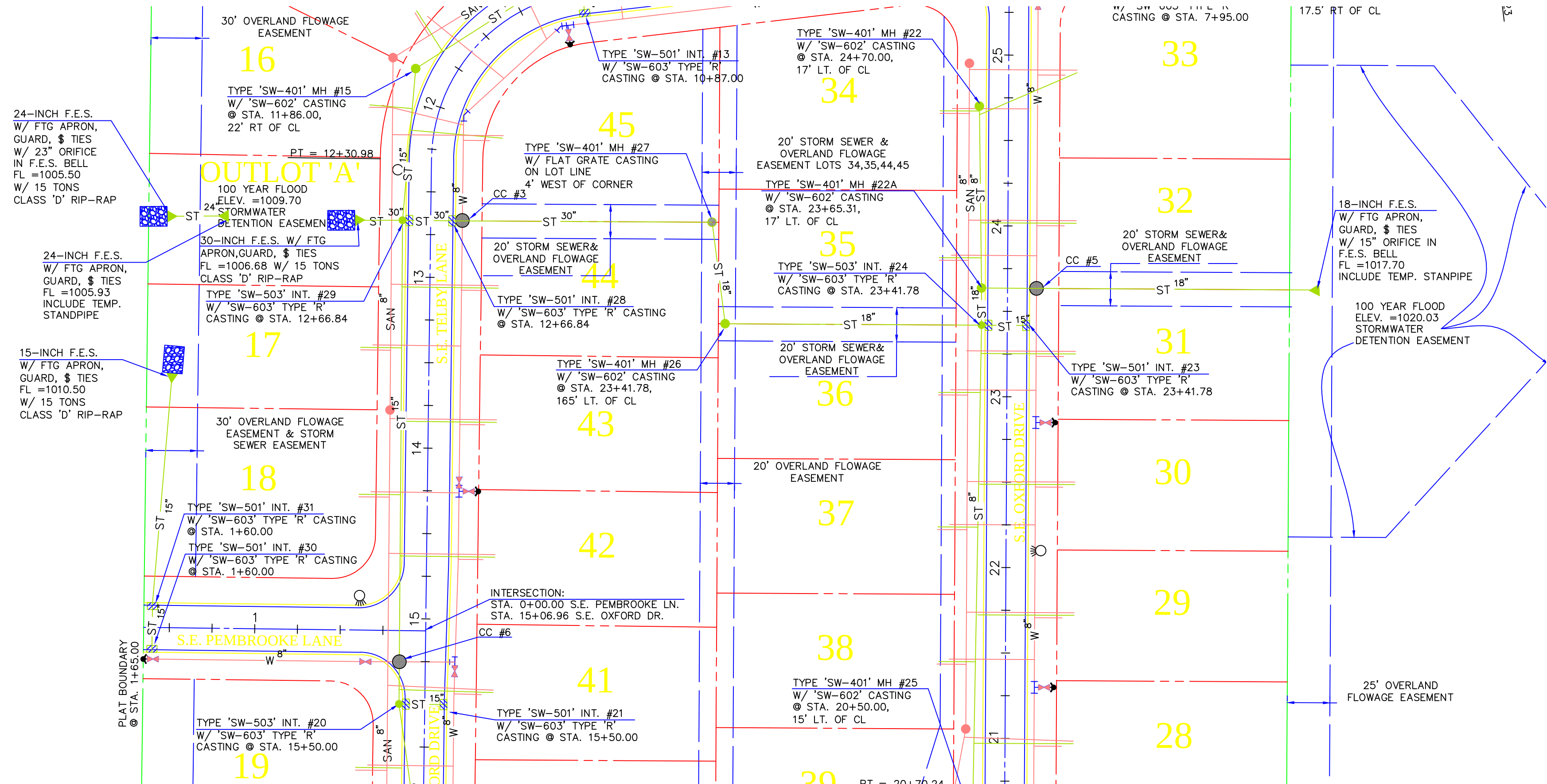
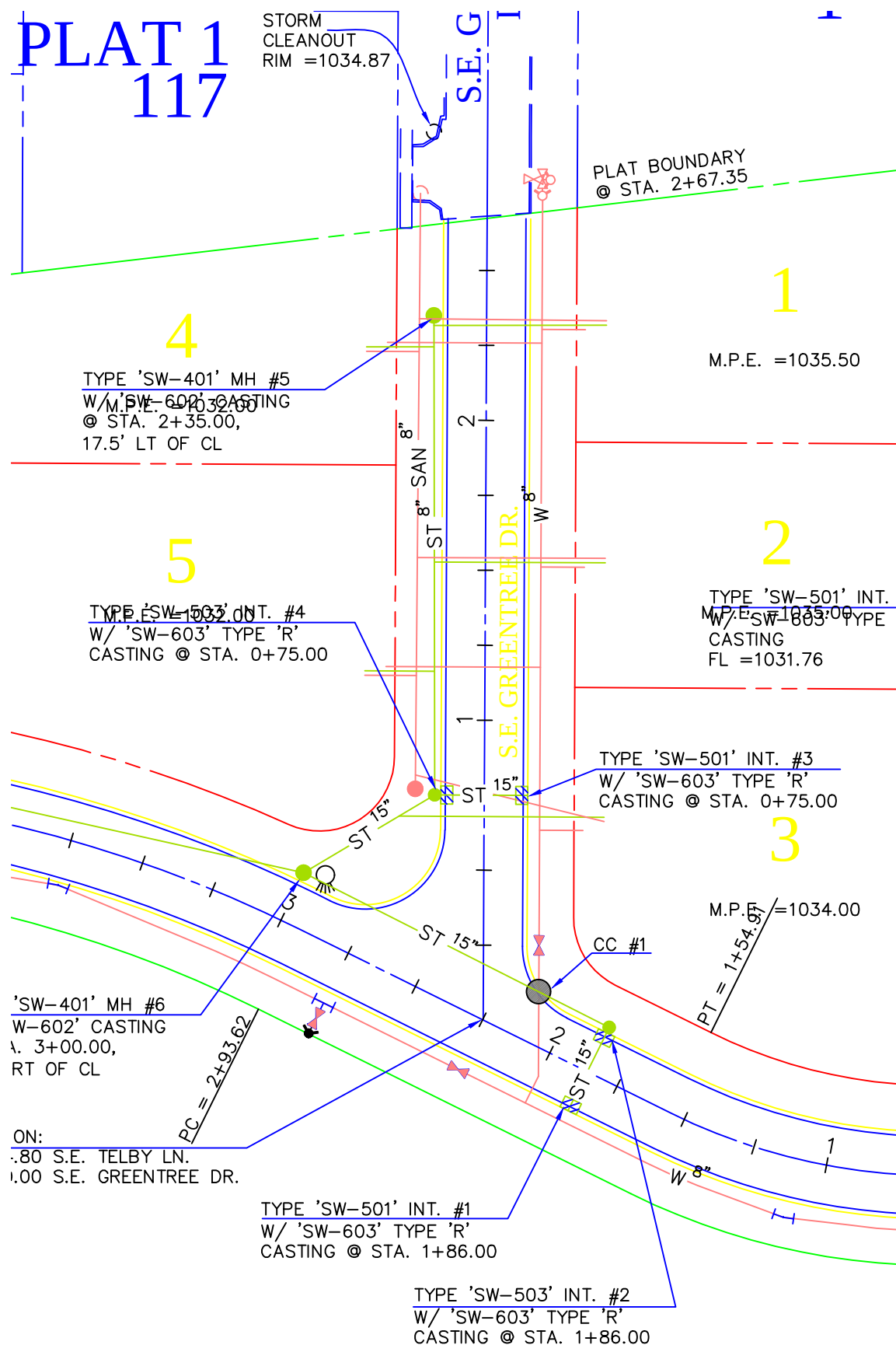
AS-BUILT: 7-25-2012

STORM SEWER WARRIOR RIDGE

SHEET 8 OF 13



PLAT 1
117



CRITICAL CROSSINGS

- CC #1 BOTTOM OF STORM =1027.35
TOP OF MAIN =1025.70
MAINTAIN 1.5' VERTICAL CLEARANCE & 6' MIN. BURY
- CC #2 BOTTOM OF STORM =1023.70
TOP OF MAIN =1022.05
MAINTAIN 1.5' VERTICAL CLEARANCE & 6' MIN. BURY
- CC #3 BOTTOM OF STORM =1007.32
TOP OF MAIN =1005.67
MAINTAIN 1.5' VERTICAL CLEARANCE & 6' MIN. BURY
- CC #4 BOTTOM OF STORM =1015.44
TOP OF MAIN =1013.79
MAINTAIN 1.5' VERTICAL CLEARANCE & 6' MIN. BURY
- CC #5 BOTTOM OF STORM =1016.04
TOP OF MAIN =1014.39
MAINTAIN 1.5' VERTICAL CLEARANCE & 6' MIN. BURY
- CC #6 BOTTOM OF STORM =1013.13
TOP OF MAIN =1011.48
MAINTAIN 1.5' VERTICAL CLEARANCE & 6' MIN. BURY

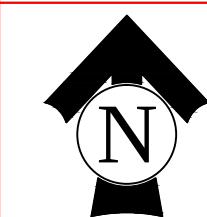
LEGEND

- EXISTING/PROPOSED
- SAN 8" — SANITARY SEWER & SIZE
 - ST 18" — STORM SEWER & SIZE
 - W 8" — WATER MAIN & SIZE
 - MANHOLE
 - STORM INTAKE
 - ▲ FIRE HYDRANT
 - ▼ VALVE
 - ▶ FLARED END SECTION



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SCALE: 1"=50'

AS-BUILT: 7-25-2012

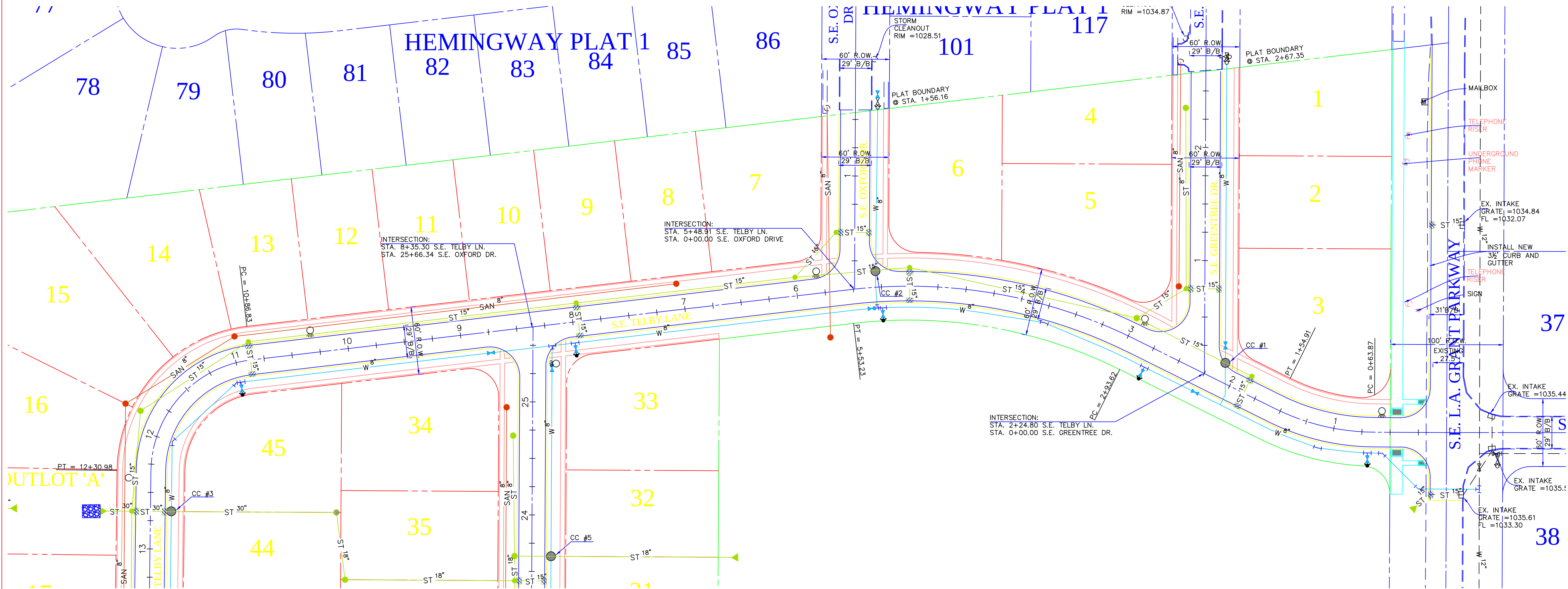
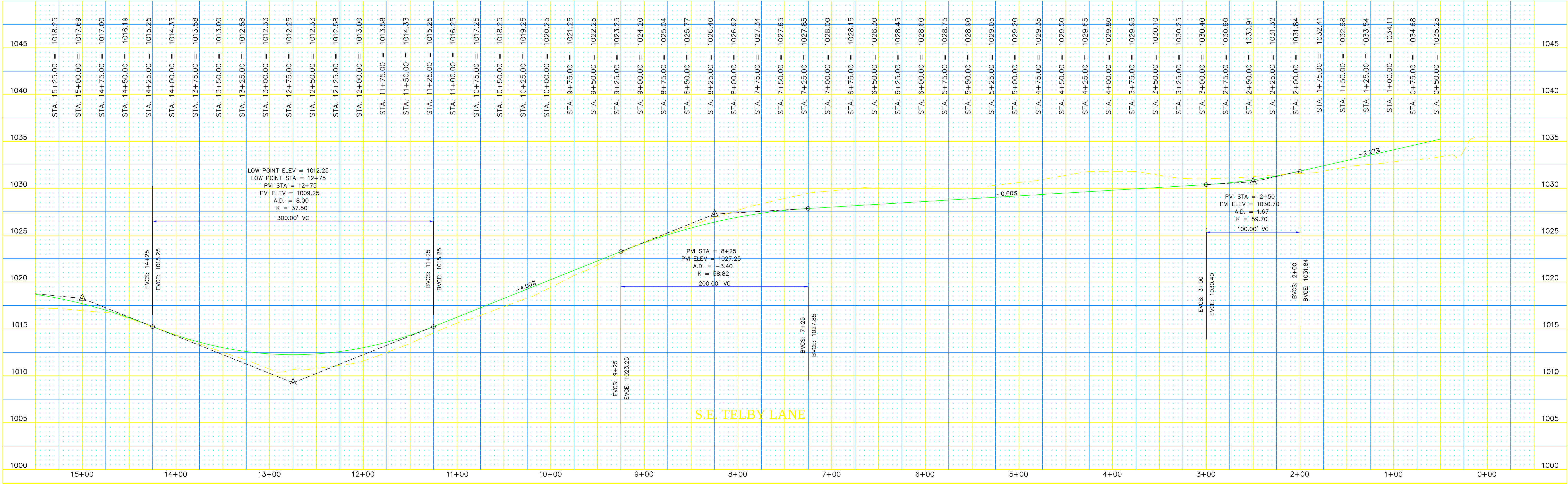
STORM SEWER
WARRIOR RIDGE

DATE: 3-8-2012
REVISIONS: 4-10-2012
4-11-2012

JOB NUMBER

CC
1347

SHEET
9 OF 13



LEGEND

EXISTING/PROPOSED

- PLAT BOUNDARY
- SANITARY SEWER & SIZE
- STORM SEWER & SIZE
- WATER MAIN & SIZE
- MANHOLE
- STORM INTAKE
- FIRE HYDRANT
- VALVE
- FLARED END SECTION

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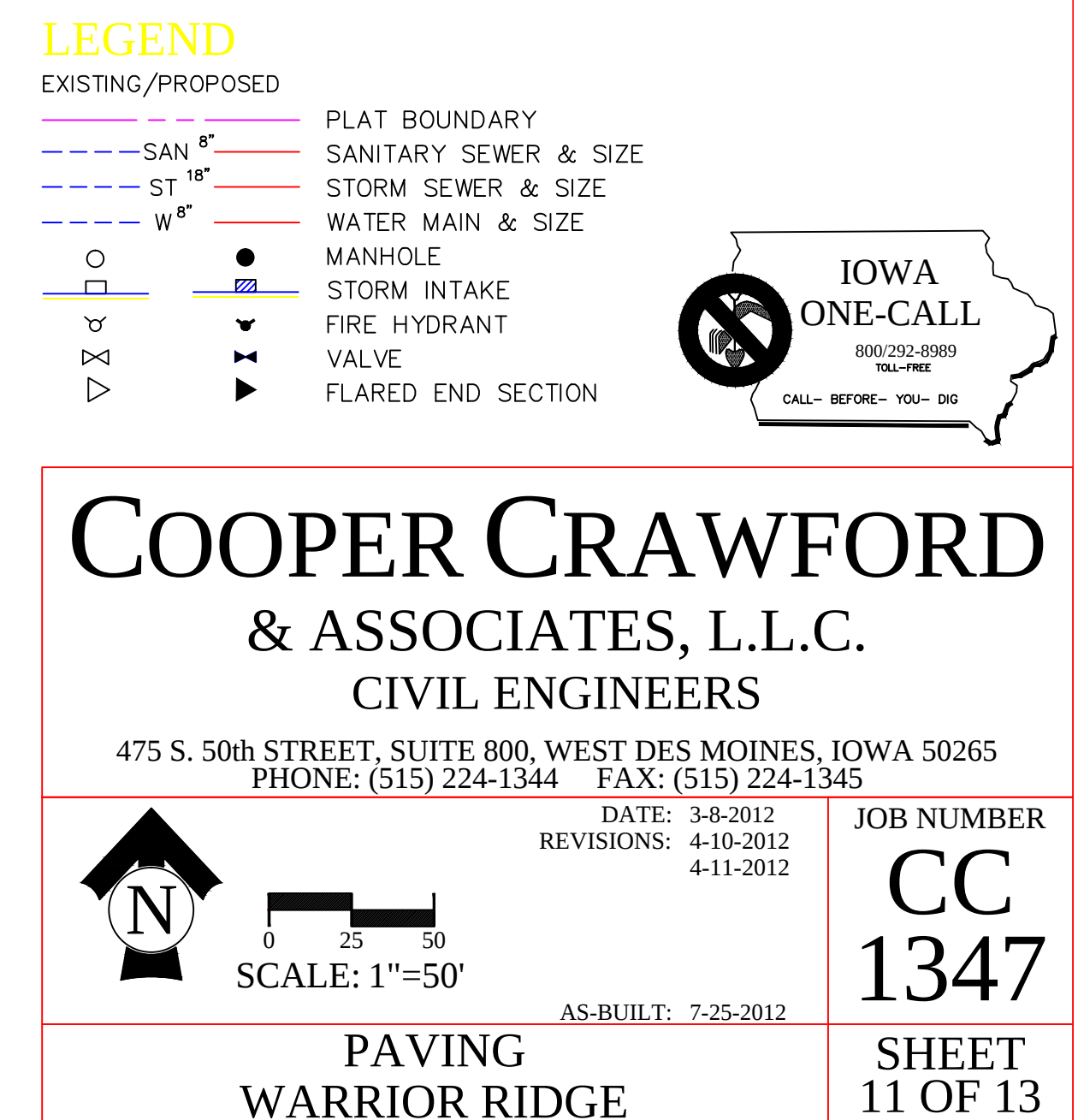
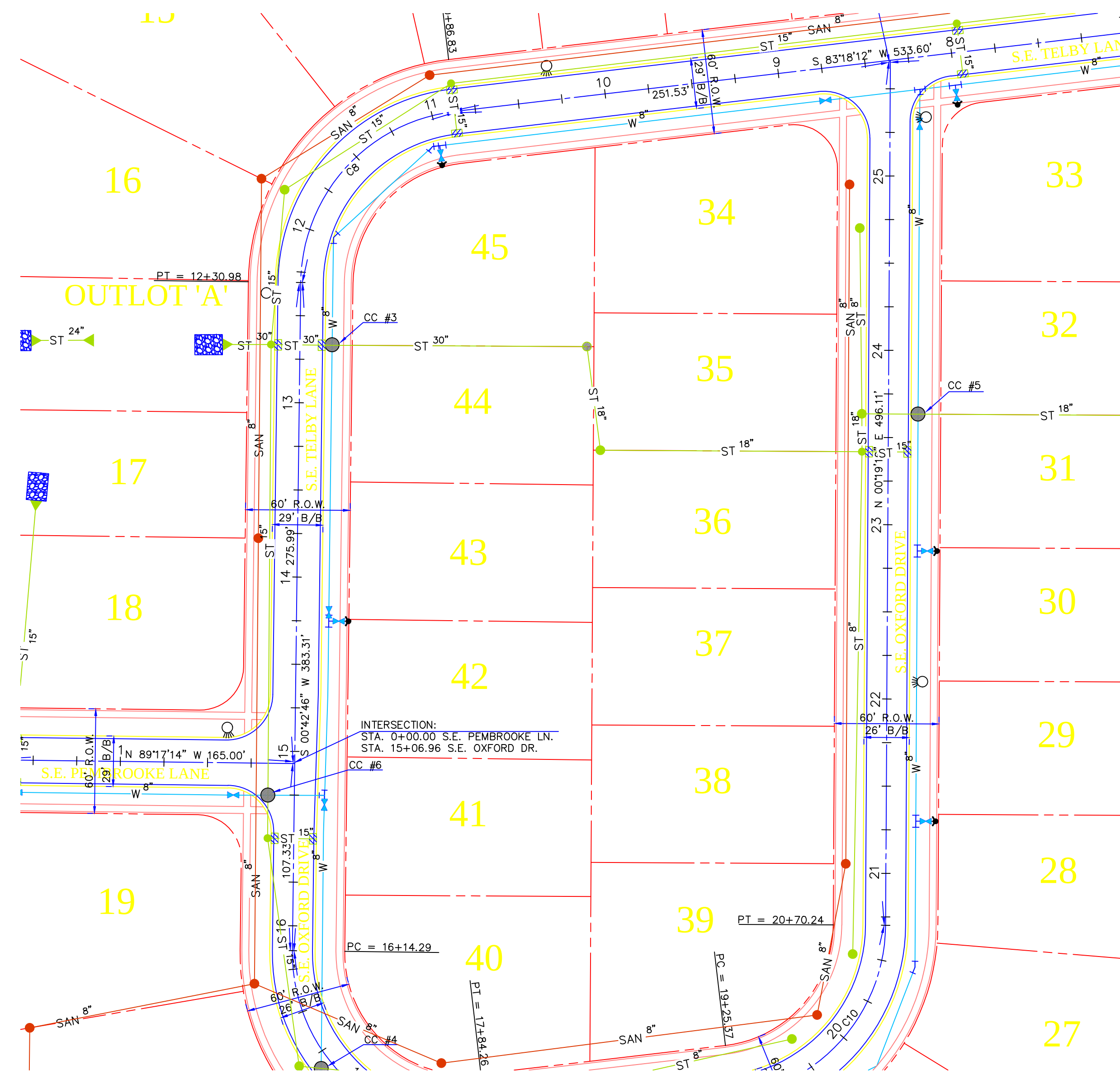
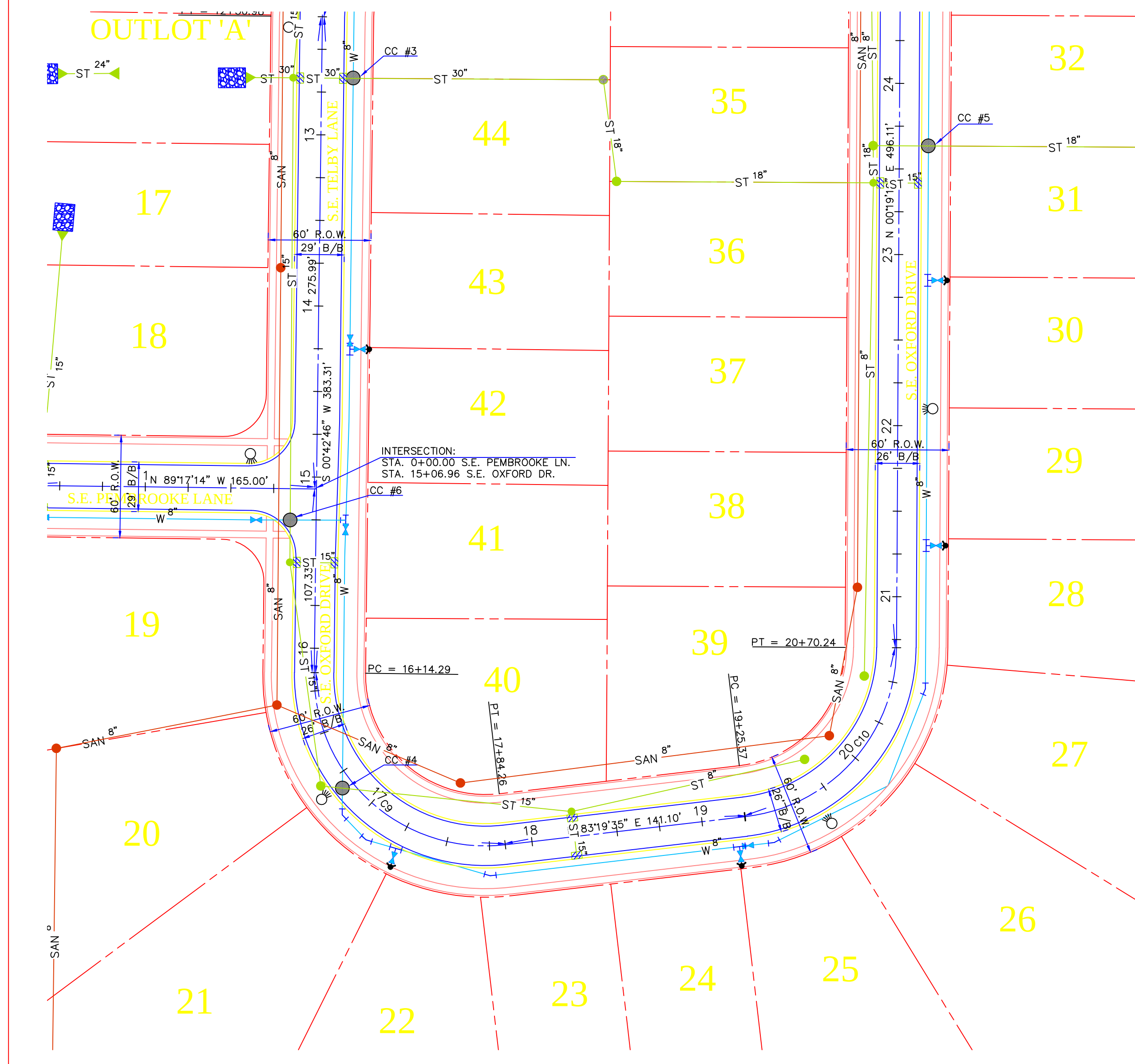
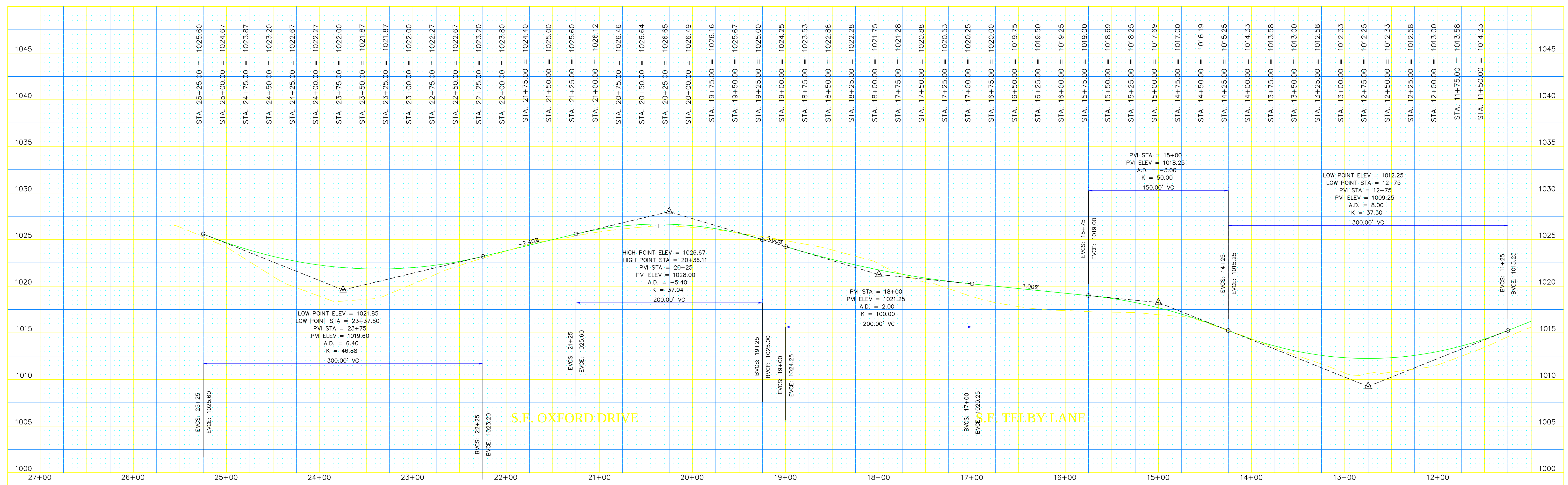
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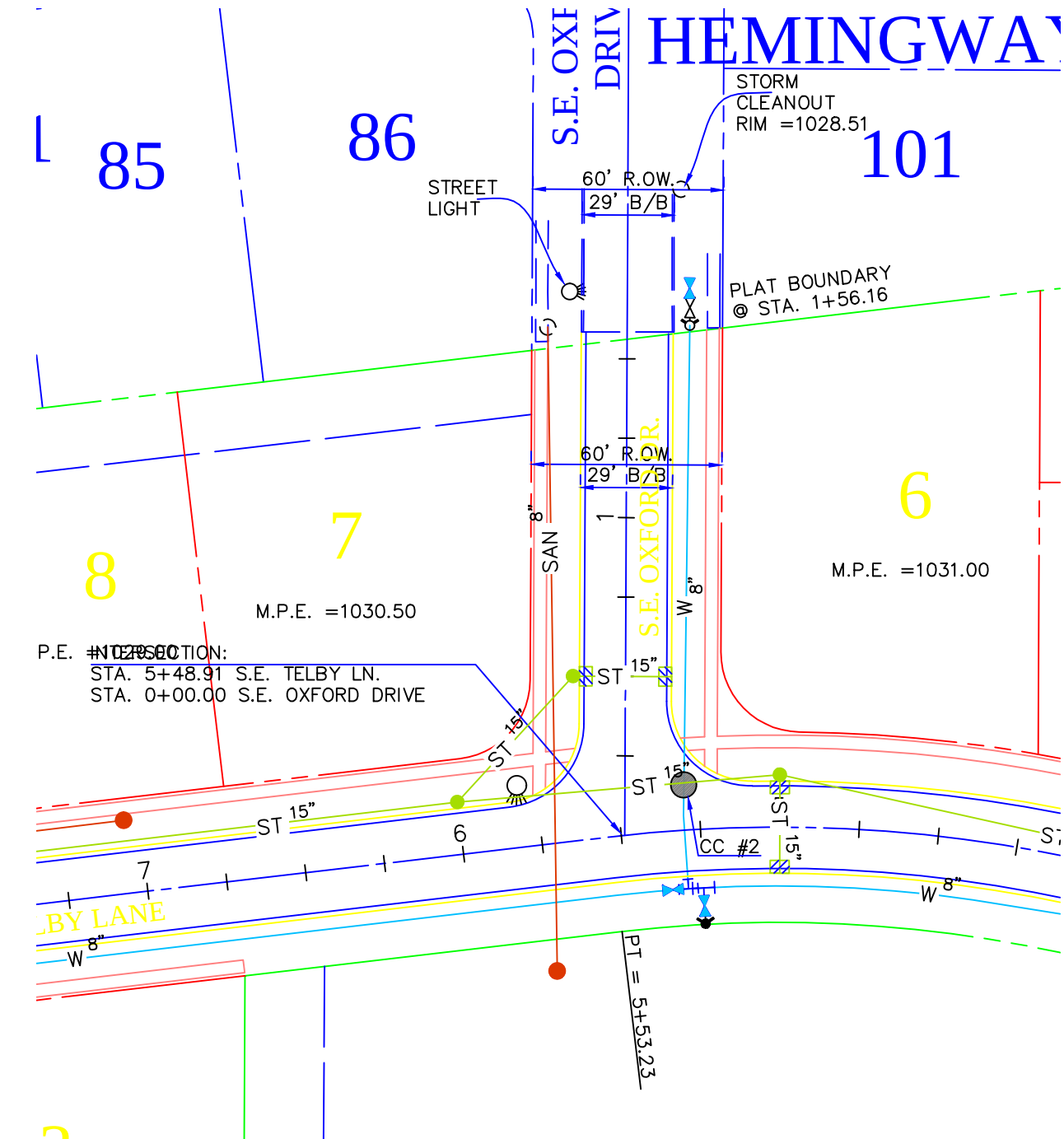
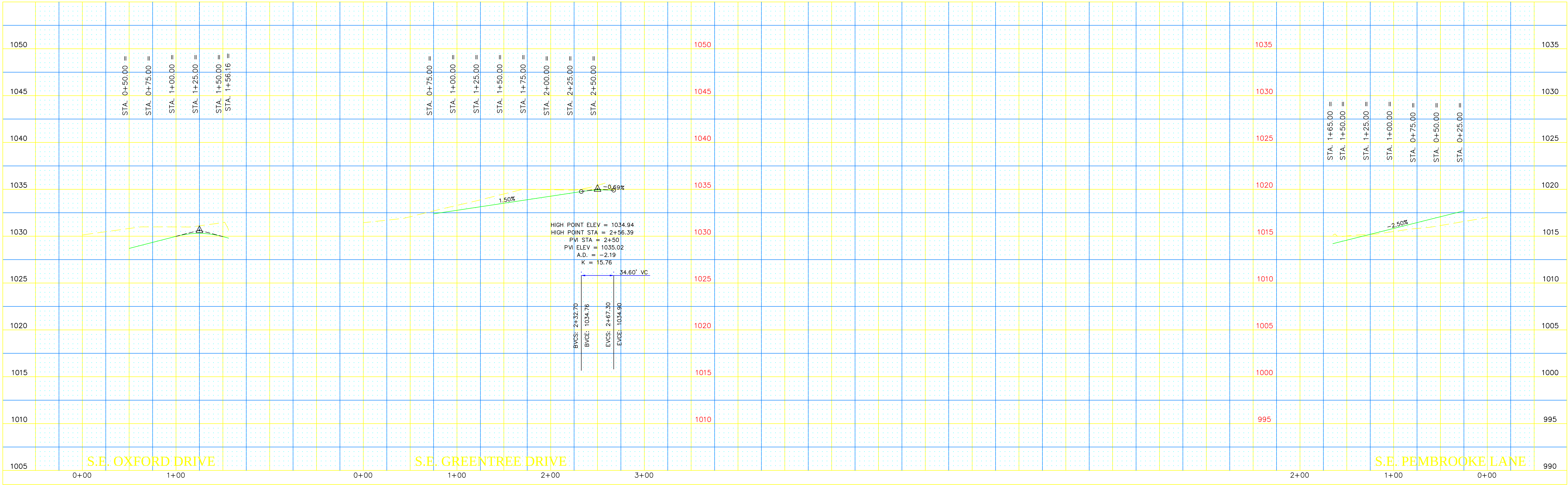
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4-11-2012

JOB NUMBER
CC 1347

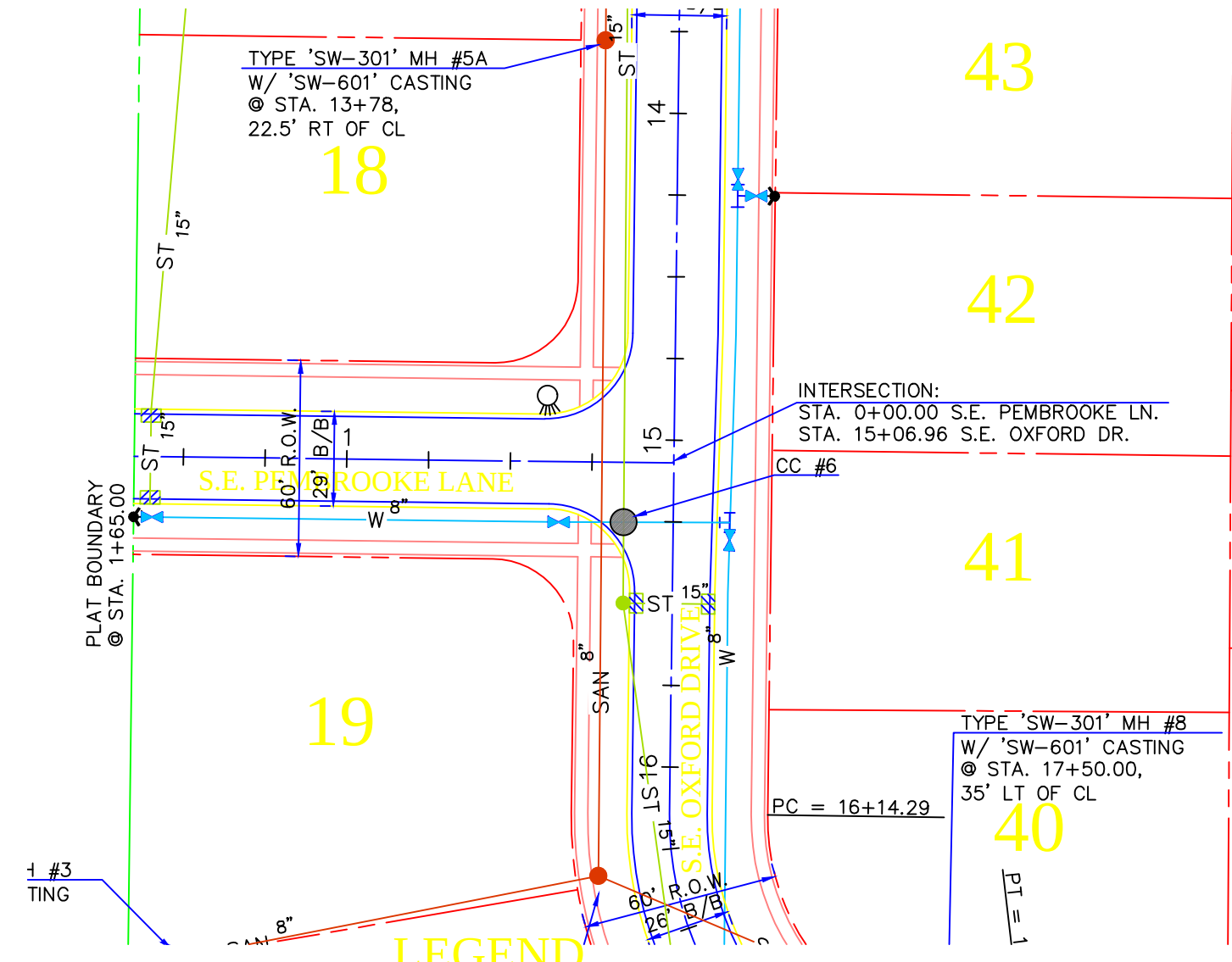
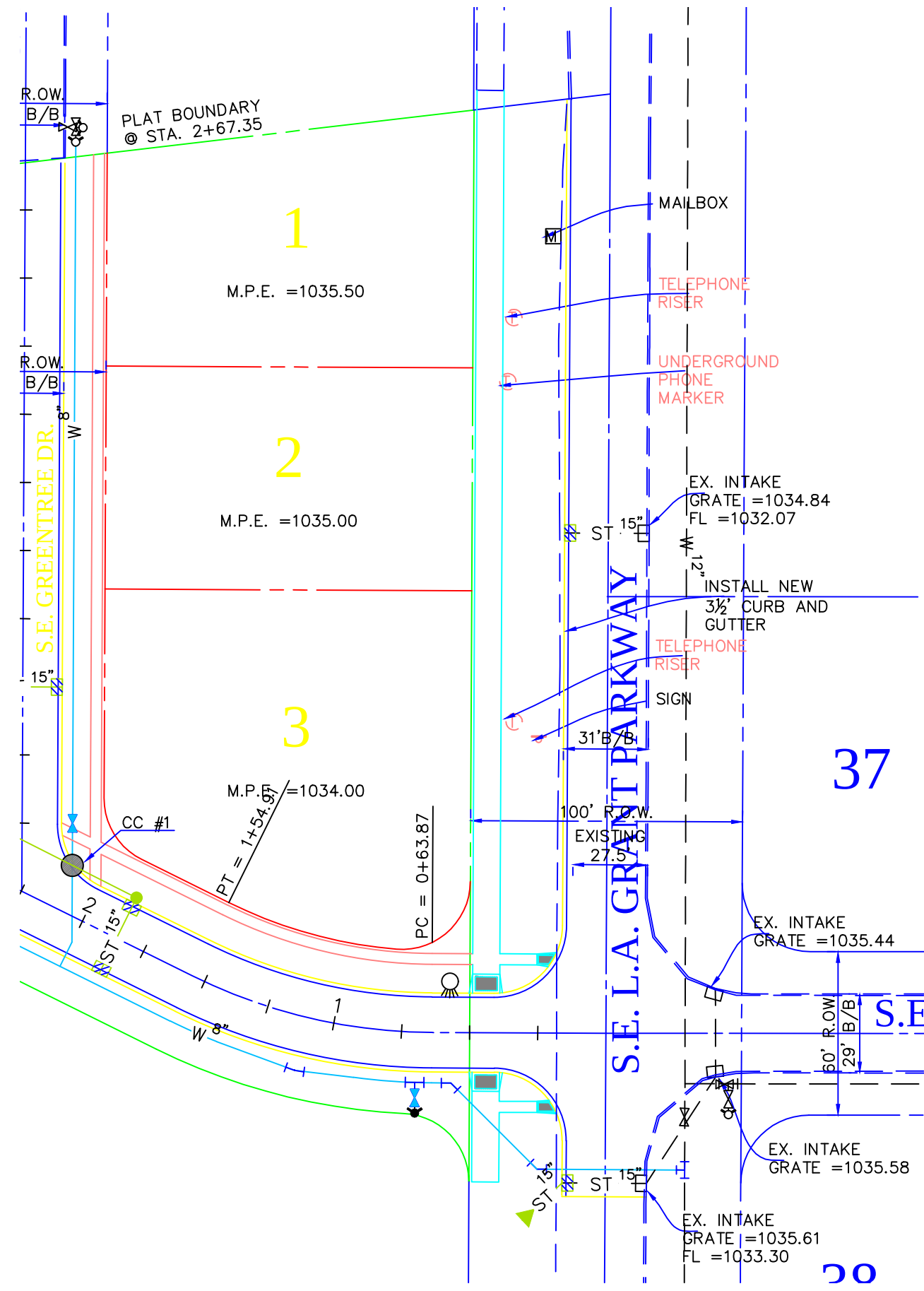
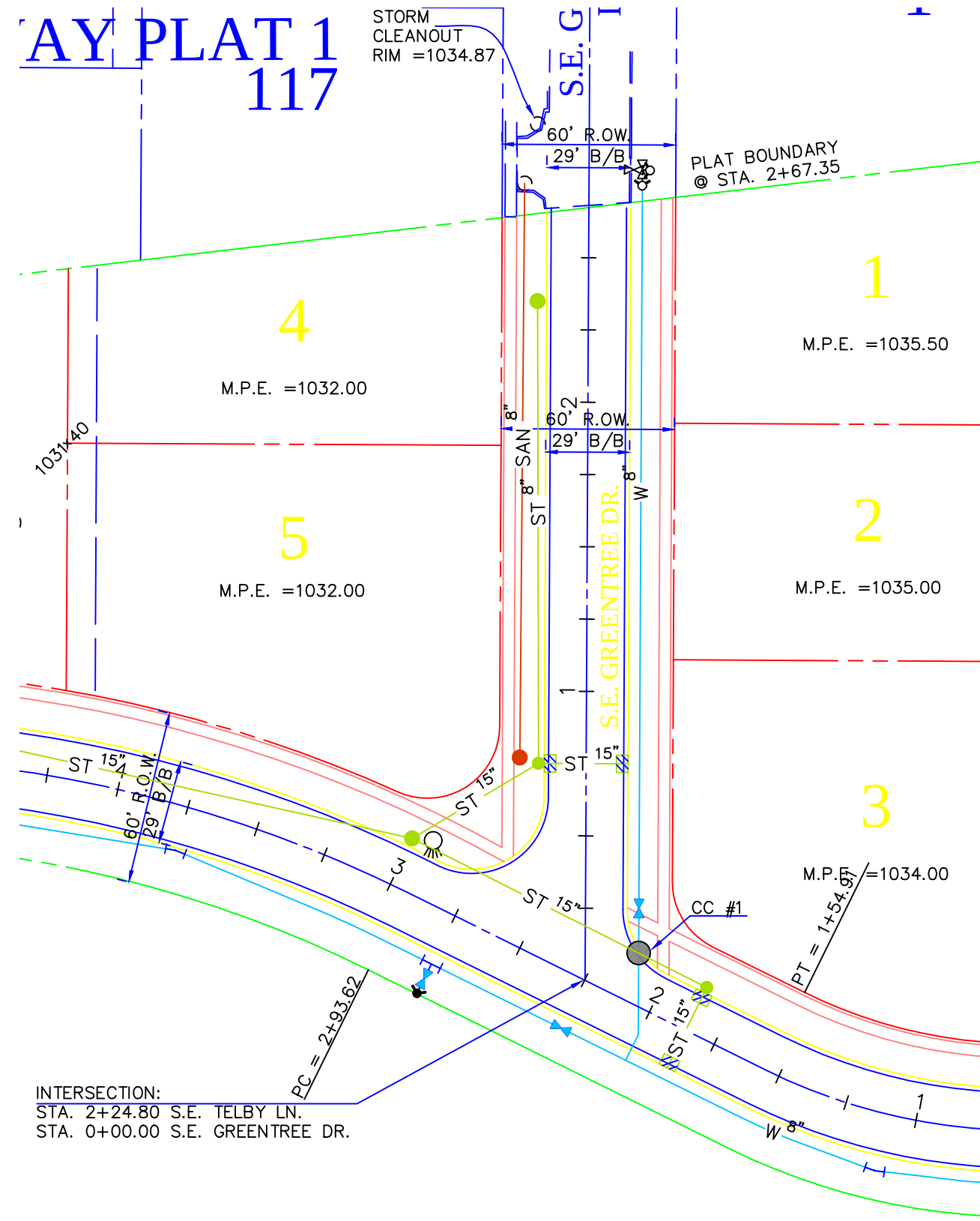
SHEET
10 OF 13

AS-BUILT:
PAVING WARRIOR RIDGE





***NOTE**
REMOVE EXISTING STREET EDGE AS DIRECTED BY CITY OF WAUKEE.



- LEGEND**
- | | |
|--------------------|-----------------------|
| EXISTING/PROPOSED | PLAT BOUNDARY |
| SAN 8" | SANITARY SEWER & SIZE |
| ST 18" | STORM SEWER & SIZE |
| W 8" | WATER MAIN & SIZE |
| MANHOLE | MANHOLE |
| STORM INTAKE | STORM INTAKE |
| FIRE HYDRANT | FIRE HYDRANT |
| VALVE | VALVE |
| FLARED END SECTION | FLARED END SECTION |



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4-11-2012

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CC 1347

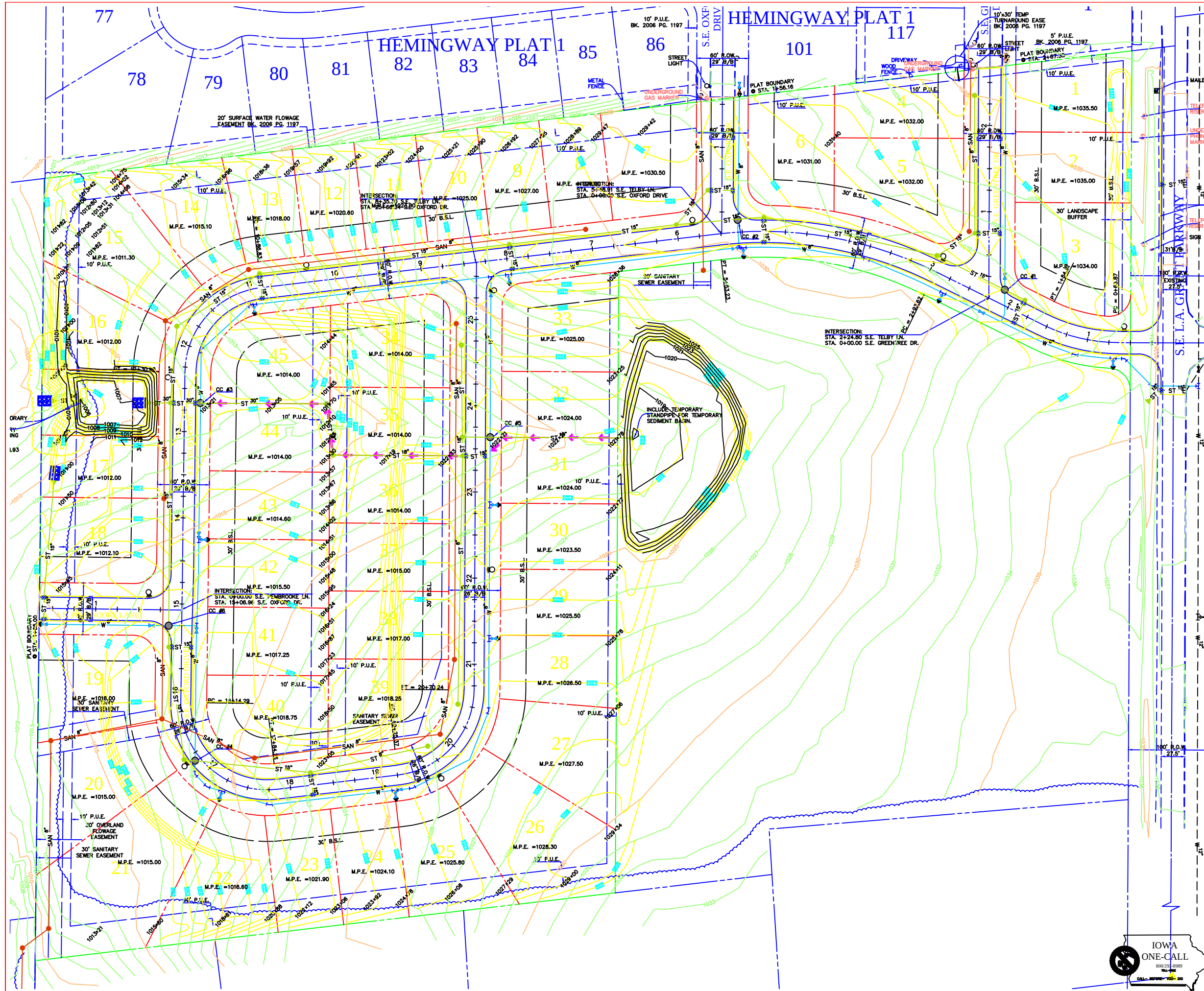
SHEET
12 OF 13

AS-BUILT: 7-25-2012

PAVING
WARRIOR RIDGE

INITIALED: -- AS-BUILT

DETAILS
WARRIOR RIDGE



LEGEND

EXISTING/PROPOSED	PLAT BOUNDARY
ST 18"	STORM SEWER & SIZE
SAN 8"	SANITARY SEWER & SIZE
W 8"	WATER MAIN & SIZE
MANHOLE	MANHOLE
STORM INTAKE	STORM INTAKE
FIRE HYDRANT	FIRE HYDRANT
VALVE	VALVE
F.E.S.	F.E.S.
EXISTING CONTOURS	EXISTING CONTOURS
PROPOSED CONTOURS	PROPOSED CONTOURS
SILT FENCE OR APPROVED FILTRATION SOCK	SILT FENCE OR APPROVED FILTRATION SOCK
LIGHT POLE	LIGHT POLE

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DRAINAGE AREAS
WARRIOR RIDGE
SHEET 1 OF 1

STORMWATER MANAGEMENT FACILITIES AS-BUILTS



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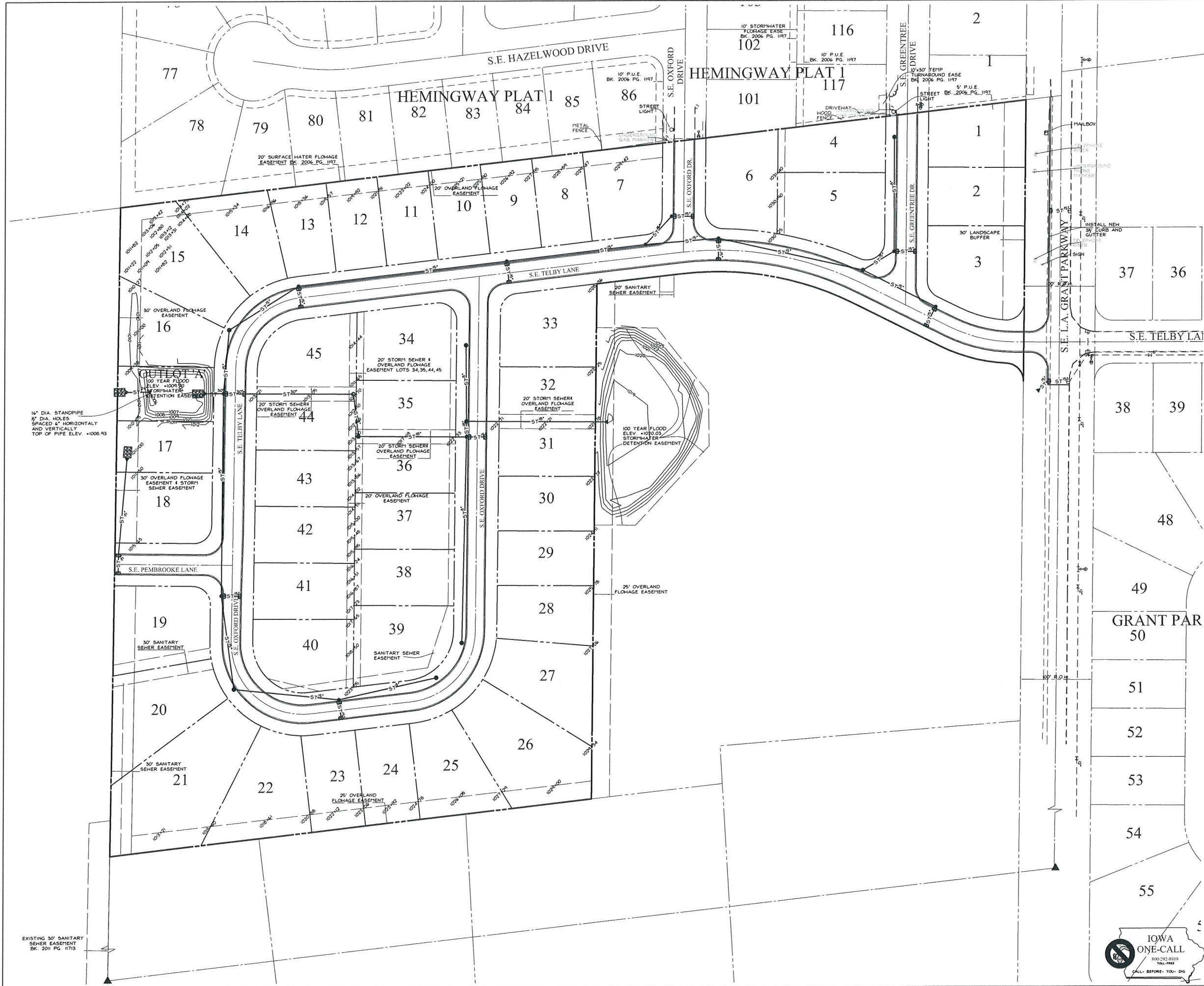
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APPROVED: -- INITIALED: -- AS-BUILT: --

APPROVED: 	INITIALED: 	AS-BUILT: 
GRADING PLAN WARRIOR RIDGE		SHEET 2 OF 13



M:\Land Projects 3\PROJECTS\CC1300\CC1347\dwg\CC1347 BASE NEW.dwg, SWWP CERT, 9/18/2012 10:07:13 AM, boverturf, 1:131.429



WARRIOR RIDGE

STORMWATER MANAGEMENT
FACILITIES AS-BUILTS

CERTIFICATION

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WERE CONSTRUCTED AS DESIGNED.



I HEREBY CERTIFY THAT THIS ENGINEERING DOCUMENT
WAS PREPARED BY ME OR UNDER MY DIRECT
PERSONAL SUPERVISION AND THAT I AM A DULY
LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS
OF THE STATE OF IOWA.
Bradley R. Cooper 9-18-12
BRADLEY R. COOPER, IOWA LICENSE NO. 12980
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PHONE: (515) 224-1344 FAX: (515) 224-1345



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STORMWATER MANAGEMENT FACILITIES AS-BUILT
WARRIOR RIDGE

SHEET
2 OF 13

