# MARKET STREET
# ROADWAY IMPROVEMENTS

## WIDENING, SIGNAL &
## OVERLAY PROJECT
## STATE PROJECT NO.: PORTSMOUTH 14368
## FEDERAL PROJECT NO. X-A000(334)
## PORTSMOUTH, NEW HAMPSHIRE

SCALES

| | | | | |
|---|---|---|---|---|
| PLANS | 20 | 0 | 20 | 40 |
| PROFILES HOR | 20 | 0 | 20 | 40 |
| PROFILES VER | 4 | 0 | 4 | 8 |
| CROSS SECTIONS | 5 | 0 | 5 | 10 |
| SIGNAL PLAN | 20 | 0 | 20 | 40 |

INDEX OF SHEETS



| SHEET NO. | DESCRIPTION |
|---|---|
| 1 | TITLE SHEET |
| 2 | TYPICAL SECTIONS |
| 3 | GENERAL NOTES & DETAILS |
| 5 – 8 | GEOMETRICS & DRAINAGE PLANS & PROFILES |
| 9 –12 | SIGNAL PLANS |
| 13–16 | PAVEMENT MARKING & SIGNING PLANS |
| 17–18 | CURBING LAYOUT PLANS |
| 19 – 26 | CROSS SECTIONS |

1 inch = 100 ft.

NOTE:
ALL WORK CONTEMPLATED UNDER THIS CONTRACT SHALL BE GOVERNED BY AND BE IN CONFORMITY WITH THE NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS DATED 2010, ANY SUPPLEMENTS THERETO, CURRENT NHDOT GOVERNING STANDARDS, SPECIAL PLANS AND CURRENT CITY STANDARDS.

NOTE:
* MAINTENANCE OF TRAFFIC PER MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD). CONTRACTOR SHALL SUBMIT PLAN FOR APPROVAL PRIOR TO START OF CONSTRUCTION, NO LATER THAN THE PRECONSTRUCTION MEETING.
* CONTRACTOR SHALL USE THE B.M.P. (BEST MANAGEMENT PRACTICES FOR EROSION AND SEDIMENT CONTROL) AS A MINIMUM STANDARD.

LOCATION MAP

CLIENT:

CITY OF PORTSMOUTH
1 JUNKINS AVENUE
PORTSMOUTH, NH 03802

Prepared By:

GP Gorrill–Palmer Consulting Engineers, Inc.
*Engineering Excellence Since 1998*

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| Rev. | Date | Revision |
|---|---|---|
| 1 | 7/9/12 | REVISED TO REFLECT NHDOT COMMENTS |

| Issued For | Date | By |
|---|---|---|
| PS&E | 7/2/12 | RCN |
| NHDOT REVIEW | 5/7/12 | RCN |
| CITY/NHDOT REVIEW | 4/6/12 | RCN |

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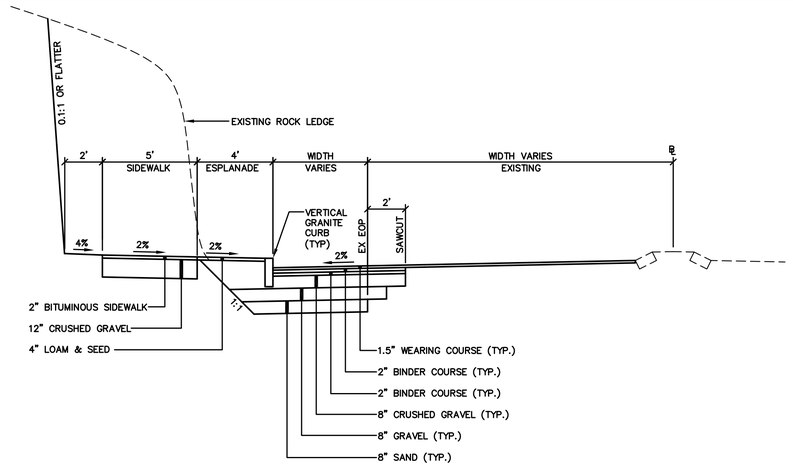
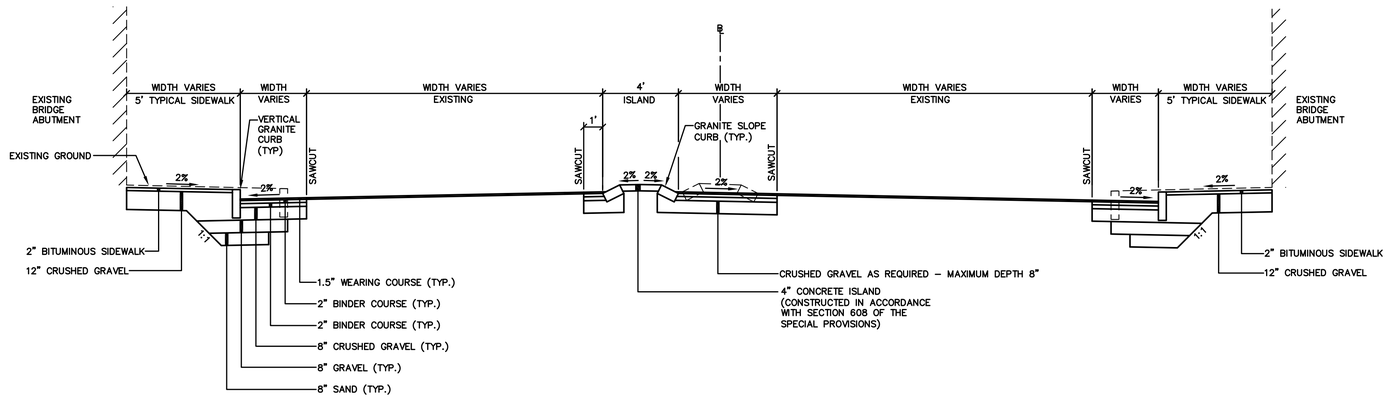
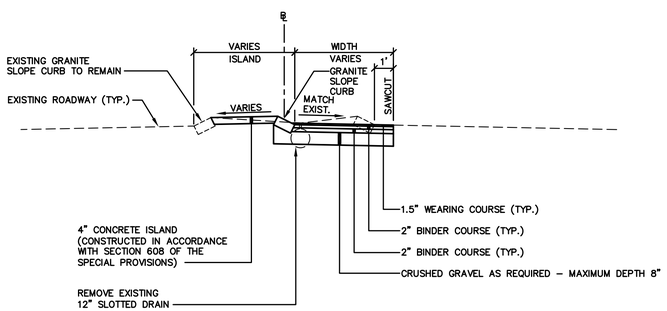


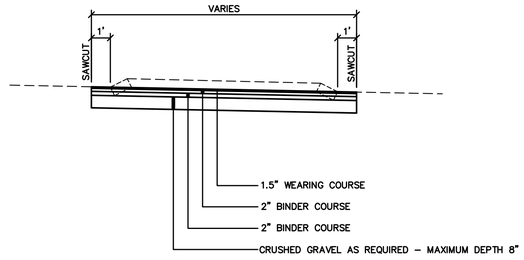

## TYPICAL SECTION
## STA 302+00 TO STA 306+75




## TYPICAL SECTION
## STA 298+00 TO STA 302+00




## TYPICAL SECTION
## STA 295+45 TO STA 298+00




## ISLAND REMOVAL DETAIL

| Rev. | Date | Revision |
|---|---|---|
| | | |

| Issued For | Date | By |
|---|---|---|
| PS&E | 7/2/12 | RCN |
| NHDOT REVIEW | 5/7/12 | RCN |
| CITY/NHDOT REVIEW | 4/6/12 | RCN |

| | | |
|---|---|---|
| Design: RCN | Draft: DB | Date: APRIL 2012 |
| Checked: TLG | Scale: NONE | Job No.: 1672.01 |
| File Name: 1672_MARKET_TYPICALS.dwg | | |

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Drawing Name: **Typical Sections**

Project: MARKET STREET ROADWAY IMPROVEMENTS
PORTSMOUTH, NH

Client: **City of Portsmouth**
1 Junkins Avenue, Portsmouth, NH 03802

Drawing No. 2

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| SHEET NO. | TOTAL SHEETS |
|---|---|
| 3 | 26 |

## GENERAL NOTES

1. THE CITY OF PORTSMOUTH SHALL HAVE THE RIGHT AND AUTHORITY TO DETERMINE THE ACCEPTABILITY OF WORK AND MATERIAL IN PROGRESS OR COMPLETED. THE CITY OF PORTSMOUTH SHALL HAVE THE RIGHT TO REJECT ANY WORK OR MATERIALS WHICH DO NOT CONFORM, IN ITS SOLE OPINION, TO THE PLANS OR SPECIFICATIONS.

2. THIS PROJECT IS TO BE CONSTRUCTED IN ACCORDANCE WITH NHDOT STANDARD SPECIFICATIONS DATED 2010, CURRENT CITY STANDARDS AND SPECIAL PLANS.

3. ADJUSTING, ALTERING AND RELOCATING THE PROPERTY OF ANY PUBLIC UTILITY SHALL BE DONE BY THE OWNER, NOT AS PART OF THIS CONTRACT UNLESS OTHERWISE NOTED. THE CONTRACTOR SHALL COOPERATE WITH THE OWNER IN THE PERFORMANCE OF THE WORK.

4. UNSUITABLE MATERIAL, ROOTS AND STUMPS WITHIN THE LIMITS OF THE ROAD BED SHALL BE REMOVED.

5. THE SUBGRADE SHALL BE SCARIFIED TO ASSURE THAT ALL BOULDERS AND COBBLES OVER 6 INCHES ARE REMOVED WITHIN 36" INCHES OF FINISHED GRADE.

6. DRIVEWAY ACCESS SHALL BE MAINTAINED AT ALL TIMES.

7. THE CONTRACTOR MUST USE THE STORMWATER MANAGEMENT AND EROSION AND SEDIMENT CONTROL HANDBOOK FOR URBAN AND DEVELOPING AREAS AS A MINIMUM. THIS WORK SHALL INCLUDE THE INSTALLATION OF EROSION CONTROL MEASURES PRIOR TO CONSTRUCTION AND THE REMOVAL OF EROSION CONTROL MEASURES AFTER THE SLOPES ARE STABILIZED AND SUPPORTING VEGETATION.

8. THE CONTRACTOR SHALL ANTICIPATE THAT GROUNDWATER WILL BE ENCOUNTERED DURING CONSTRUCTION AND SHALL INCLUDE SUFFICIENT COSTS WITHIN THEIR BID TO PROVIDE DEWATERING AS NECESSARY. NO SEPARATE PAYMENT SHALL BE MADE TO THE CONTRACTOR FOR DEWATERING.

9. CATCH BASINS SHALL BE NHDOT TYPE 'B' ALTERNATE WITH 3–FLANGE CASTINGS. GRATES FOR CATCH BASINS SHALL BE MANUFACTURED IN THE U.S.A.

10. UNLESS OTHERWISE NOTED, ALL STORM DRAIN (SD) PIPE SHALL BE PLASTIC PIPE WITH SMOOTH INTERIOR, AND BE IN ACCORDANCE WITH NHDOT SPECIFICATIONS.

11. ALL TRAFFIC SIGNS/MARKERS SHALL BE MOUNTED WITH NHDOT APPROVED BREAKAWAY DEVICES.

12. CURB TRANSITION SECTIONS SHALL BE USED TO TRANSITION FROM VERTICAL TO SLOPED GRANITE WHERE VERTICAL CURB MEETS SLOPED DRIVEWAY CURBING TO REMAIN.

13. ANY RELOCATION OR ADJUSTMENTS OF THE UTILITY FACILITIES WILL BE MADE BY THE RESPECTIVE UTILITIES IN COORDINATION WITH THE WORK BEING CONDUCTED BY THE CONTRACTOR.

14. IF ANY ITEMS TO BE REMOVED AND RESET ARE DAMAGED DURING REMOVAL, STORAGE OR RESETTING, THE DAMAGED MATERIALS SHALL BE REPLACED BY THE CONTRACTOR TO THE SATISFACTION OF THE CITY OF PORTSMOUTH AT NO ADDITIONAL COST.

15. VERTICAL GRANITE TERMINAL END SECTIONS SHALL BE USED AT THE LOCATIONS AT WHICH VERTICAL GRANITE CURB BEGINS OR ENDS.

16. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ANY NHDOT TRENCH/EXCAVATION OPENING PERMITS WHICH MAY BE REQUIRED.

17. EXISTING CATCH BASINS, DROP INLETS, WATER VALVE BOXES, PULL BOXES AND SIMILAR STRUCTURES SHALL BE ADJUSTED TO THE PROPOSED PAVEMENT ELEVATION.

18. ALL DIMENSIONS AND OFFSETS ARE MEASURED TO THE CONSTRUCTION BASE LINE.

19. ALL DISTURBED SLOPE AREAS SHALL BE LOAMED AND SEEDED WITH A MINIMUM OF 4" OF LOAM.

20. DISPOSITION OF SURPLUS MATERIAL SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. SURPLUS MATERIAL SHALL NOT BE DISPOSED OF ON THE PROJECT SITE. DISPOSITION SHALL BE MADE ONLY AT WASTE AREAS WHICH ARE LICENSED TO ACCEPT SUCH MATERIALS, UNLESS THE MATERIALS CAN BE INCORPORATED IN FILLS IN OTHER PROJECTS OF THE CONTRACTOR.

21. THE CONTRACTOR SHALL SUBMIT A PLAN TO CONTROL TRAFFIC DURING THE PERIOD OF CONSTRUCTION OF THE TRAFFIC IMPROVEMENTS TO THE CITY OF PORTSMOUTH AND NHDOT FOR APPROVAL A MINIMUM OF ONE WEEK PRIOR TO CONSTRUCTION WHICH CONFORMS TO THE FEDERAL HIGHWAY ADMINISTRATION'S "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS." THE CONTRACTOR MUST MAINTAIN TWO–WAY TRAFFIC FLOW AT ALL TIMES.

22. THE CONTRACTOR SHALL PROVIDE THE CITY OF PORTSMOUTH WITH A SCHEDULE OF WORK FOR CONSTRUCTING THE TRAFFIC IMPROVEMENTS, PRIOR TO BEGINNING WORK. MONTHLY UPDATES SHALL BE SUBMITTED TO THE CITY.

23. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR THE ELEVATION OF THE EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND WHERE POSSIBLE MEASUREMENTS TAKEN IN THE FIELD. UNDERGROUND FACILITIES INDICATED ON THE CROSS SECTIONS HAVE BEEN CARRIED OVER FROM THE PLAN VIEW DATA AND MAY ALSO INCLUDE FURTHER APPROXIMATIONS OF THE ELEVATIONS (DEPTHS) BASED UPON STRAIGHT LINE INTERPOLATION FROM THE NEAREST MANHOLES, GATE VALVES, OR TEST PITS. THIS INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANY AND DIG SAFE AT LEAST 72 HOURS PRIOR TO ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES. THE ENGINEER HAS COORDINATED THE PROPOSED WORK WITH THE AFFECTED UTILITY COMPANIES TO ARRANGE FOR REQUIRED RELOCATION OF THEIR KNOWN FACILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE HIS WORK AND SCHEDULE AND THE UTILITY RELOCATION WORK WITH THE PROPER UTILITY COMPANY.

24. OFFSETS TO CATCH BASINS AND MANHOLES ARE TO THE CENTER OF THE COVER OR GRATE.

25. EXISTING CONDITIONS BASED ON SURVEY COMPLETED BY JAMES VERRA & ASSOCIATES, INC. JAMES VERRA & ASSOCIATES, INC. WILL COMPLETE INITIAL LAYOUT OF BASELINES AND CONTROL, AND THE CONTRACTOR SHALL BE RESPONSIBLE TO MAINTAIN THOSE CONTROLS.

26. CONSTRUCTION SHALL NOT COMMENCE UNTIL AUTHORIZED BY THE CITY OF PORTSMOUTH.

27. ALL ADA RAMPS SHALL BE CONSTRUCTED WITH CONCRETE WITH 24"x 36" MODULAR TRUNCATED DOME DETECTABLE WARNING SYSTEMS, BRICK RED IN COLOR MANUFACTURED BY ARMOR–TILE.

28. ALL EXISTING PAVEMENT MARKINGS THAT CONFLICT WITH THE PROPOSED PAVEMENT MARKINGS SHALL BE REMOVED. THIS WORK SHALL BE INCIDENTAL TO THE PAVEMENT MARKING ITEMS 632.0104 AND 632.02.

29. ALL EXISTING STRAIGHT VERTICAL AND SLOPED CURB SHOULD BE RESET. THIS WORK SHALL BE PAID FOR UNDER ITEM 609.5. ALL OTHER CURB SHALL BE REMOVED. REMOVAL OF CURB SHALL BE INCIDENTAL TO THE CONTRACT ITEMS.

30. ALL PROPOSED WORK SHALL BE CONSTRUCTED OUTSIDE OF THE DELINEATED JURISDICTIONAL WETLANDS. IF CONTRACTOR NEEDS TO IMPACT THE DELINEATED WETLAND BOUNDARY, THEN A NHDES WETLANDS PERMIT WILL NEED TO BE OBTAINED BY THE CONTRACTOR.

31. JURISDICTIONAL WETLAND BOUNDARIES DELINEATED BY NHSC, INC. ON DECEMBER 19, 2006 IN ACCORDANCE WITH NHDES ADMINISTRATIVE RULES USING THE PROCEEDURES OUTLINED IN THE 1987 U.S. ARMY CORPS OF ENGINEERS WETLAND DELINEATION MANUAL.

32. THE TOTAL 20–YEAR ESAL FOR THE SUPER PAVE MIX DESIGN ON THIS PROJECT SHALL BE ASSUMED TO BE LESS THEN 10,000,000.

## LEGEND NOTES

1. SEE GEOMETRIC PLAN SHEETS, DRAINAGE STRUCTURE SCHEDULES, FOR SIZE, LOCATION AND REQUIRED SPECIAL FEATURES FOR ALL NEW AND IDENTIFIED EXISTING DRAINAGE STRUCTURES.

2. SEE SIGNAL PLANS FOR LEGEND ASSOCIATED WITH TRAFFIC SIGNAL FEATURES.

3. SEE PAVEMENT MARKINGS AND SIGNING PLANS FOR LEGENDS ASSOCIATED WITH STRIPING AND SIGNING FEATURES.

4. SEE CURB LAYOUT PLANS FOR LEGEND ASSOCIATED WITH CURB TYPES AND DETAILS.

**LEGEND**

| | | |
|---|---|---|
| → | SD | STORM DRAIN |
| → | UD | UNDERDRAIN |
| ■ | CB | PROPOSED CATCH BASIN |
| ▩ | EXCB | EXISTING CATCH BASIN |
| ● | DMH | PROPOSED DRAINAGE MANHOLE |
| Ⓔ | EXDMH | EXISTING DRAINAGE MANHOLE |
| F | | FILL CATCH LINE |
| C | | CUT CATCH LINE |
| CLL | | CLEARING LIMIT LINE |
| · | | HAYBALE SEDIMENT BARRIER |
| | | GRANITE SLOPE CURB 6" HIGH, ITEMS 609.216 & 609.236 |
| | | VERTICAL GRANITE CURB, ITEMS 609.01 & 609.02 |




REF:
BEST MANAGEMENT PRACTICE FOR EROSION AND SEDIMENT CONTROL – SEDIMENT BARRIERS

HAYBALE SEDIMENT BARRIER

## EROSION & SEDIMENTATION CONTROL DETAIL

NOT TO SCALE

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| Rev. | Date | Revision |
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| Issued For | Date | By |
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| PS&E | 7/2/12 | RCN |
| NHDOT REVIEW | 5/7/12 | RCN |
| CITY/NHDOT REVIEW | 4/6/12 | RCN |

Design: RCN | Draft: DB | Date: APRIL 2012
Checked: TLG | Scale: NONE | Job No.: 1672.01
File Name: 1672_MARKET_GEN.dwg

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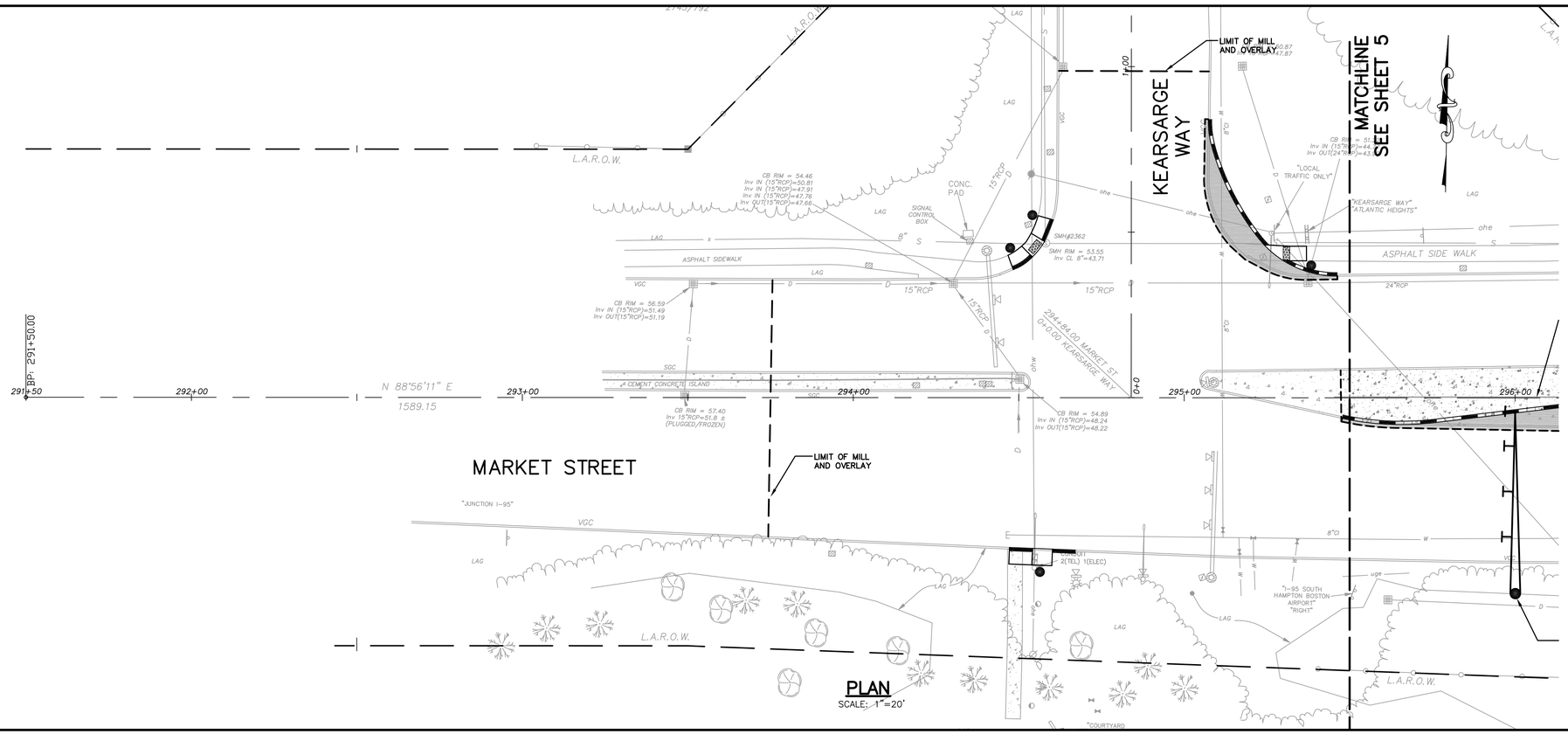
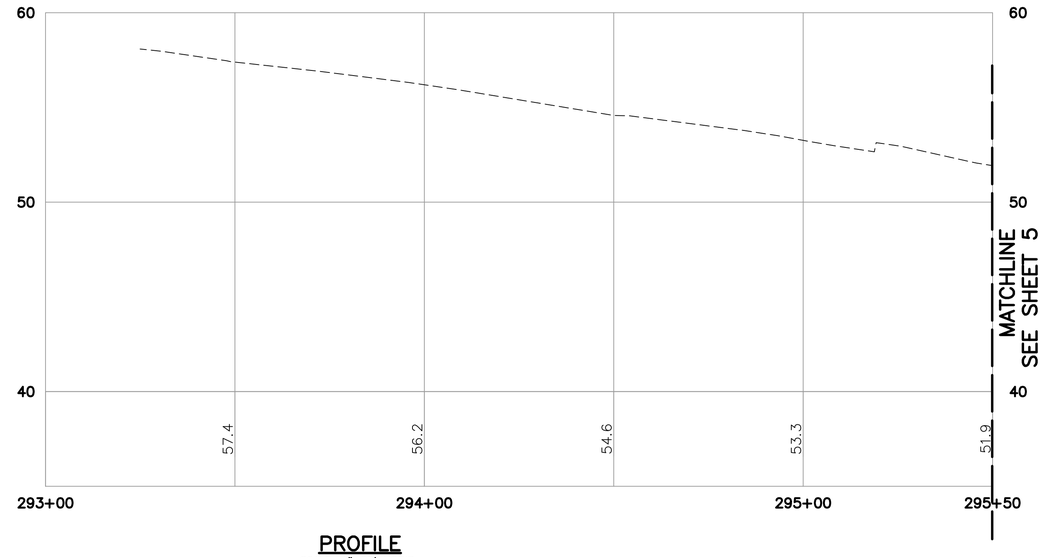
Drawing Name: **General Notes & Quantities**
Project: MARKET STREET ROADWAY IMPROVEMENTS
PORTSMOUTH, NH
Client: **City of Portsmouth**
1 Junkins Avenue, Portsmouth, NH 03802

Drawing No. 3

| SHEET NO. | TOTAL SHEETS |
|---|---|
| 4 | 26 |




PLAN
SCALE: 1"=20'




PROFILE
SCALE: 1"=20' HORIZ.
1"=4' VERT.

| PAVEMENT LEGEND |
|---|
| PROPOSED WIDENING |

| CURBING LEGEND |
|---|
| GRANITE SLOPE CURB 6" HIGH, ITEMS 609.216 & 609.236 |
| VERTICAL GRANITE CURB, ITEMS 609.01 & 609.02 |

20 0 10 20 40
1 inch = 20 ft.

| Rev. | Date | Revision |
|---|---|---|

| Issued For | Date | By |
|---|---|---|
| PS&E | 7/2/12 | RCN |
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| CITY/NHDOT REVIEW | 4/6/12 | RCN |

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| Design: RCN | Draft: DB | Date: APRIL 2012 |
| Checked: TLG | Scale: 1"=20' | Job No.: 1672.01 |
| File Name: 1672_MARKET_GEO.dwg | | |

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Drawing Name: Geometrics Plan & Profile – 1
Project: MARKET STREET ROADWAY IMPROVEMENTS PORTSMOUTH, NH
Client: City of Portsmouth
1 Junkins Avenue, Portsmouth, NH 03802

Drawing No. 4

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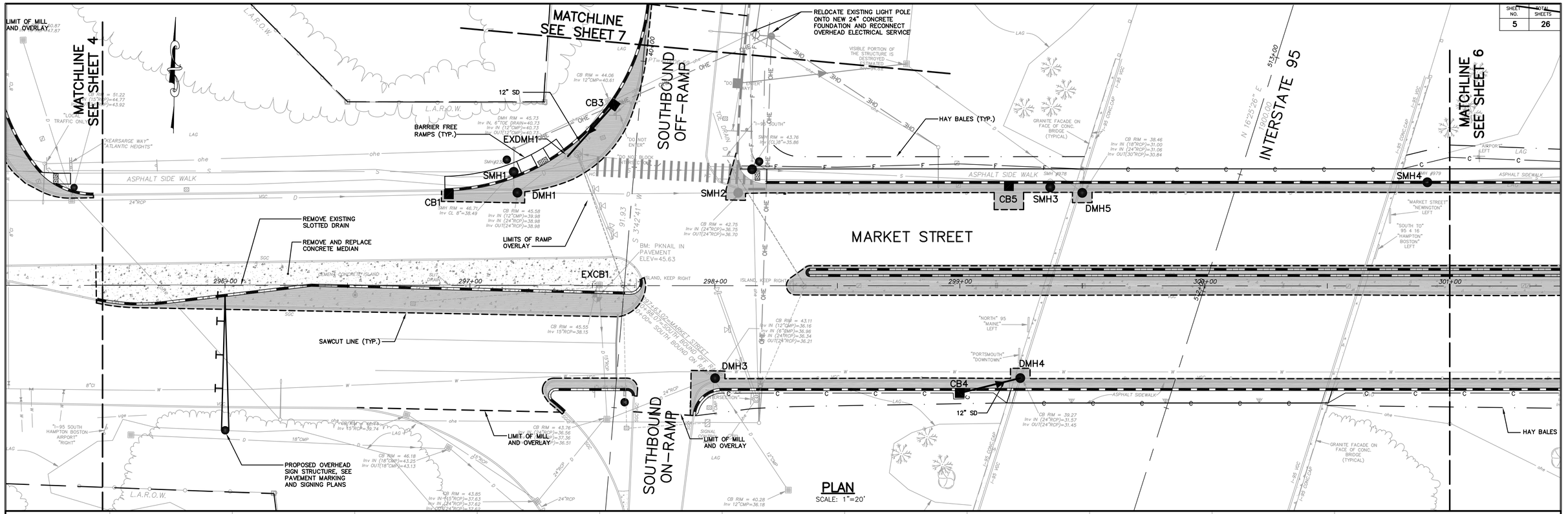
| SHEET NO. | TOTAL SHEETS |
|---|---|
| 5 | 26 |




## PLAN
SCALE: 1"=20'

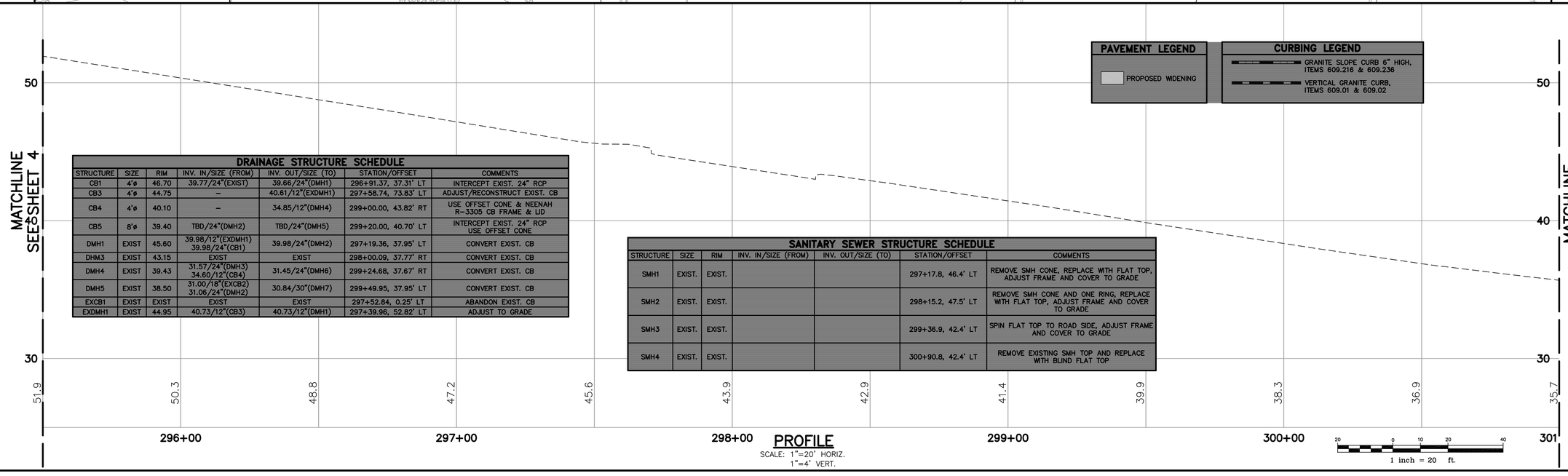
| PAVEMENT LEGEND | CURBING LEGEND |
|---|---|
| PROPOSED WIDENING | GRANITE SLOPE CURB 6" HIGH, ITEMS 609.216 & 609.236 |
| | VERTICAL GRANITE CURB, ITEMS 609.01 & 609.02 |

### DRAINAGE STRUCTURE SCHEDULE

| STRUCTURE | SIZE | RIM | INV. IN/SIZE (FROM) | INV. OUT/SIZE (TO) | STATION/OFFSET | COMMENTS |
|---|---|---|---|---|---|---|
| CB1 | 4'ø | 46.70 | 39.77/24"(EXIST) | 39.66/24"(DMH1) | 296+91.37, 37.31' LT | INTERCEPT EXIST. 24" RCP |
| CB3 | 4'ø | 44.75 | – | 40.61/12"(EXDMH1) | 297+58.74, 73.83' LT | ADJUST/RECONSTRUCT EXIST. CB |
| CB4 | 4'ø | 40.10 | – | 34.85/12"(DMH4) | 299+00.00, 43.82' RT | USE OFFSET CONE & NEENAH R-3305 CB FRAME & LID |
| CB5 | 8'ø | 39.40 | TBD/24"(DMH2) | TBD/24"(DMH5) | 299+20.00, 40.70' LT | INTERCEPT EXIST. 24" RCP USE OFFSET CONE |
| DMH1 | EXIST | 45.60 | 39.98/12"(EXDMH1) 39.98/24"(CB1) | 39.98/24"(DMH2) | 297+19.36, 37.95' LT | CONVERT EXIST. CB |
| DHM3 | EXIST | 43.15 | EXIST | EXIST | 298+00.09, 37.77' RT | CONVERT EXIST. CB |
| DMH4 | EXIST | 39.43 | 31.57/24"(DMH3) 34.60/12"(CB4) | 31.45/24"(DMH6) | 299+24.68, 37.67' RT | CONVERT EXIST. CB |
| DMH5 | EXIST | 38.50 | 31.00/18"(EXCB2) 31.06/24"(DMH2) | 30.84/30"(DMH7) | 299+49.95, 37.95' LT | CONVERT EXIST. CB |
| EXCB1 | EXIST | EXIST | EXIST | EXIST | 297+52.84, 0.25' LT | ABANDON EXIST. CB |
| EXDMH1 | EXIST | 44.95 | 40.73/12"(CB3) | 40.73/12"(DMH1) | 297+39.96, 52.82' LT | ADJUST TO GRADE |

### SANITARY SEWER STRUCTURE SCHEDULE

| STRUCTURE | SIZE | RIM | INV. IN/SIZE (FROM) | INV. OUT/SIZE (TO) | STATION/OFFSET | COMMENTS |
|---|---|---|---|---|---|---|
| SMH1 | EXIST. | EXIST. | | | 297+17.8, 46.4' LT | REMOVE SMH CONE, REPLACE WITH FLAT TOP, ADJUST FRAME AND COVER TO GRADE |
| SMH2 | EXIST. | EXIST. | | | 298+15.2, 47.5' LT | REMOVE SMH CONE AND ONE RING, REPLACE WITH FLAT TOP, ADJUST FRAME AND COVER TO GRADE |
| SMH3 | EXIST. | EXIST. | | | 299+36.9, 42.4' LT | SPIN FLAT TOP TO ROAD SIDE, ADJUST FRAME AND COVER TO GRADE |
| SMH4 | EXIST. | EXIST. | | | 300+90.8, 42.4' LT | REMOVE EXISTING SMH TOP AND REPLACE WITH BLIND FLAT TOP |




## PROFILE
SCALE: 1"=20' HORIZ.
1"=4' VERT.

20 0 10 20 40
1 inch = 20 ft.

| Rev. | Date | Revision |
|---|---|---|
| | | |

| Issued For | Date | By |
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| CITY/NHDOT REVIEW | 4/6/12 | RCN |

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|---|---|---|
| Design: RCN | Draft: DB | Date: APRIL 2012 |
| Checked: TLG | Scale: 1"=20' | Job No.: 1672.01 |
| File Name: 1672_MARKET_GEO.dwg | | |

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Drawing Name: **Geometrics Plan & Profile – 2**

Project: MARKET STREET ROADWAY IMPROVEMENTS
PORTSMOUTH, NH

Client: **City of Portsmouth**
1 Junkins Avenue, Portsmouth, NH 03802

Drawing No. 5

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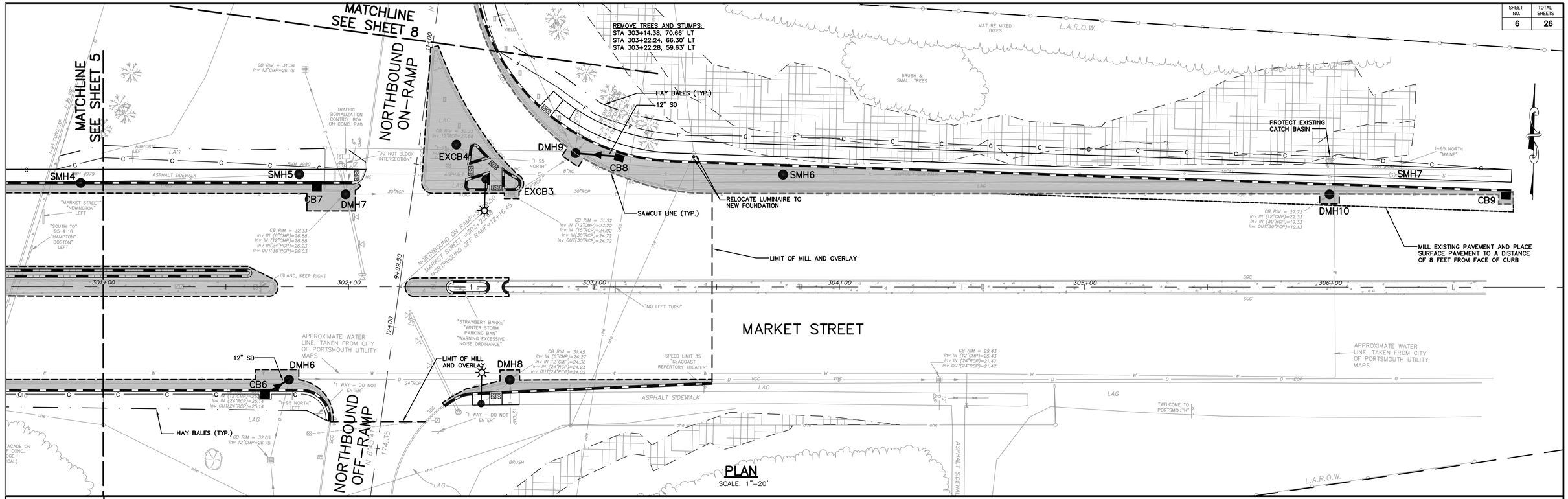
| SHEET NO. | TOTAL SHEETS |
|---|---|
| 6 | 26 |




**PAVEMENT LEGEND**

PROPOSED WIDENING

**CURBING LEGEND**

GRANITE SLOPE CURB 6" HIGH, ITEMS 609.216 & 609.236

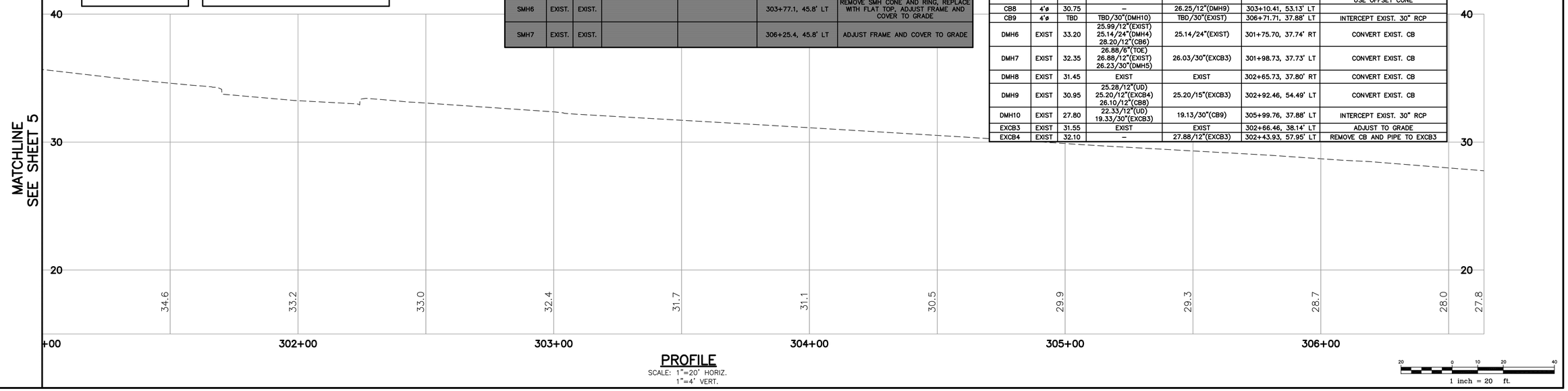
VERTICAL GRANITE CURB, ITEMS 609.01 & 609.02

**SANITARY SEWER STRUCTURE SCHEDULE**

| STRUCTURE | SIZE | RIM | INV. IN/SIZE (FROM) | INV. OUT/SIZE (TO) | STATION/OFFSET | COMMENTS |
|---|---|---|---|---|---|---|
| SMH5 | EXIST. | EXIST. | | | 301+79.9, 45.9' LT | ADJUST FRAME AND COVER TO GRADE |
| SMH6 | EXIST. | EXIST. | | | 303+77.1, 45.8' LT | REMOVE SMH CONE AND RING, REPLACE WITH FLAT TOP, ADJUST FRAME AND COVER TO GRADE |
| SMH7 | EXIST. | EXIST. | | | 306+25.4, 45.8' LT | ADJUST FRAME AND COVER TO GRADE |

**DRAINAGE STRUCTURE SCHEDULE**

| STRUCTURE | SIZE | RIM | INV. IN/SIZE (FROM) | INV. OUT/SIZE (TO) | STATION/OFFSET | COMMENTS |
|---|---|---|---|---|---|---|
| CB6 | 4'ø | 33.15 | – | 28.40/12"(DMH6) | 301+66.00, 43.67' RT | USE OFFSET CONE & NEENAH 3305 CB FRAME & LID |
| CB7 | 8'ø | 32.60 | TBD/24"(DMH5) | TBD/24"(DMH7) | 301+87.00, 40.84' LT | INTERCEPT EXIST. 24" RCP USE OFFSET CONE |
| CB8 | 4'ø | 30.75 | – | 26.25/12"(DMH9) | 303+10.41, 53.13' LT | |
| CB9 | 4'ø | TBD | TBD/30"(DMH10) | TBD/30"(EXIST) | 306+71.71, 37.88' LT | INTERCEPT EXIST. 30" RCP |
| DMH6 | EXIST | 33.20 | 25.99/12"(EXIST)<br>25.14/24"(DMH4)<br>28.20/12"(CB6) | 25.14/24"(EXIST) | 301+75.70, 37.74' RT | CONVERT EXIST. CB |
| DMH7 | EXIST | 32.35 | 26.88/6"(TOE)<br>26.88/12"(EXIST)<br>26.23/30"(DMH5) | 26.03/30"(EXCB3) | 301+98.73, 37.73' LT | CONVERT EXIST. CB |
| DMH8 | EXIST | 31.45 | EXIST | EXIST | 302+65.73, 37.80' RT | CONVERT EXIST. CB |
| DMH9 | EXIST | 30.95 | 25.28/12"(UD)<br>25.20/12"(EXCB4)<br>26.10/12"(CB8) | 25.20/15"(EXCB3) | 302+92.46, 54.49' LT | CONVERT EXIST. CB |
| DMH10 | EXIST | 27.80 | 22.33/12"(UD)<br>19.33/30"(EXCB3) | 19.13/30"(CB9) | 305+99.76, 37.88' LT | INTERCEPT EXIST. 30" RCP |
| EXCB3 | EXIST | 31.55 | EXIST | EXIST | 302+66.46, 38.14' LT | ADJUST TO GRADE |
| EXCB4 | EXIST | 32.10 | – | 27.88/12"(EXCB3) | 302+43.93, 57.95' LT | REMOVE CB AND PIPE TO EXCB3 |




**PROFILE**
SCALE: 1"=20' HORIZ.
1"=4' VERT.

1 inch = 20 ft.

| Rev. | Date | Revision |
|---|---|---|
| | | |

| Issued For | Date | By |
|---|---|---|
| PS&E | 7/2/12 | RCN |
| NHDOT REVIEW | 5/7/12 | RCN |
| CITY/NHDOT REVIEW | 4/6/12 | RCN |

Design: RCN | Draft: DB | Date: APRIL 2012
Checked: TLG | Scale: 1"=20' | Job No.: 1672.01
File Name: 1672_MARKET_GEO.dwg

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E-Mail: mailbox@gorrillpalmer.com

Drawing Name: **Geometrics Plan & Profile – 3**

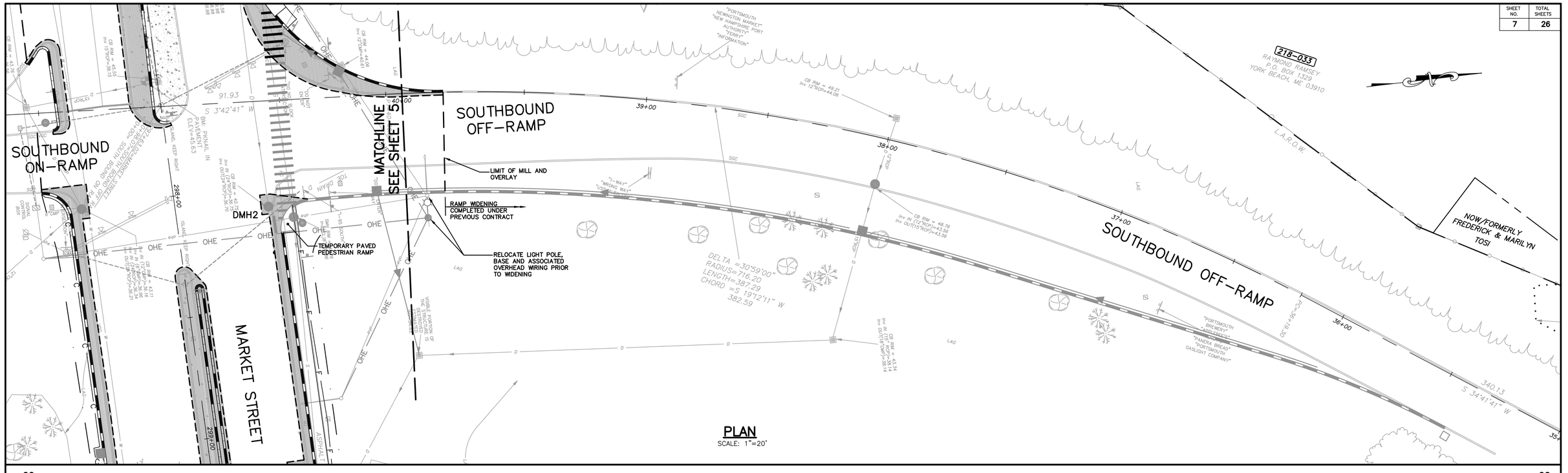
Project: MARKET STREET ROADWAY IMPROVEMENTS
PORTSMOUTH, NH

Client: **City of Portsmouth**
1 Junkins Avenue, Portsmouth, NH 03802

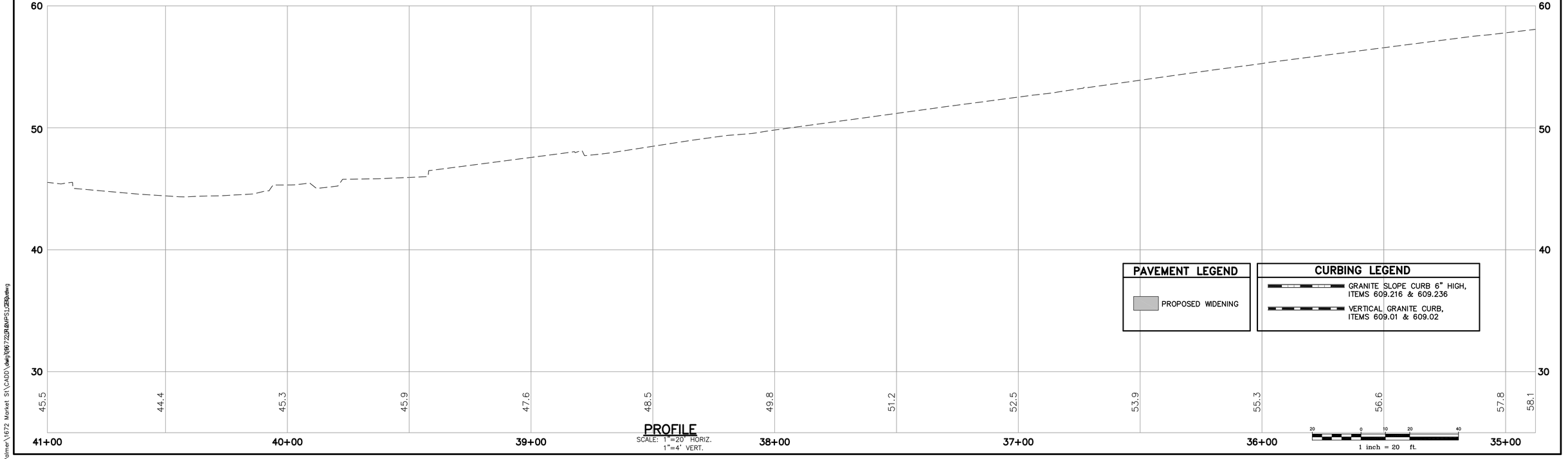
Drawing No. 6

C:\Data\Projects\Gorrill-Palmer\1672 Market St\CADD\dwg\1672GEOMARKET_2PG.dwg

| SHEET NO. | TOTAL SHEETS |
|---|---|
| 7 | 26 |




PLAN
SCALE: 1"=20'




PROFILE
SCALE: 1"=20' HORIZ.
1"=4' VERT.

| Rev. | Date | Revision |
|---|---|---|
| 1 | 7/9/12 | REVISED TO RECLECT NHDOT COMMENTS |

| Issued For | Date | By |
|---|---|---|
| PS&E | 7/2/12 | RCN |
| NHDOT REVIEW | 5/7/12 | RCN |
| CITY/NHDOT REVIEW | 4/6/12 | RCN |

| | | |
|---|---|---|
| Design: RCN | Draft: DB | Date: APRIL 2012 |
| Checked: TLG | Scale: 1"=20' | Job No.: 1672.01 |

File Name: 1672_RAMPS_GEO.dwg

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E-Mail: mailbox@gorrillpalmer.com

Drawing Name: **Geometrics Plan & Profile – 4**

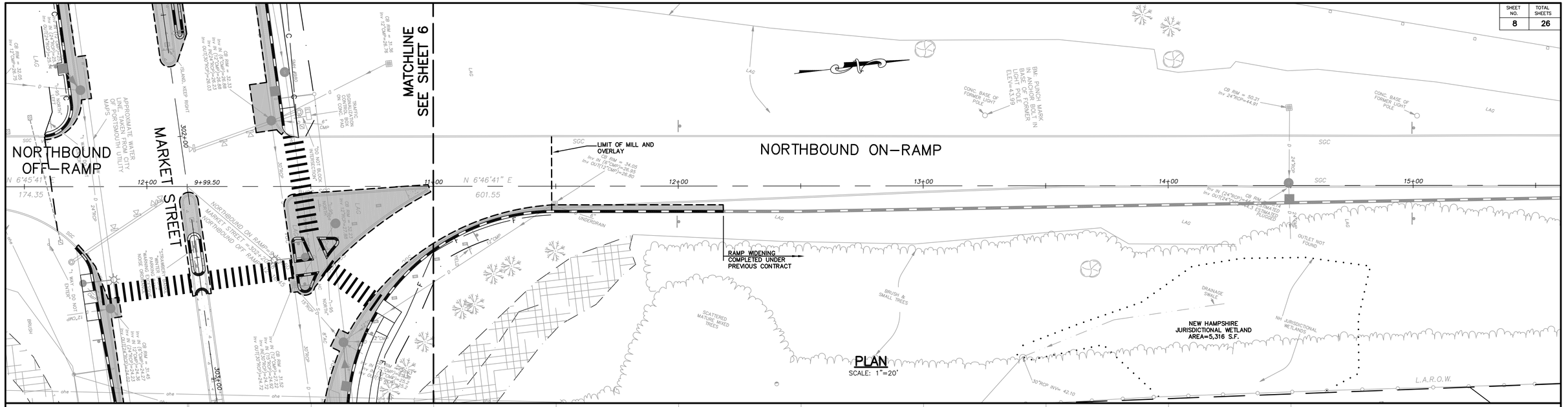
Project: I-95 EXIT 7 (MARKET STREET) INTERCHANGE IMPROVEMENTS
PORTSMOUTH, NH

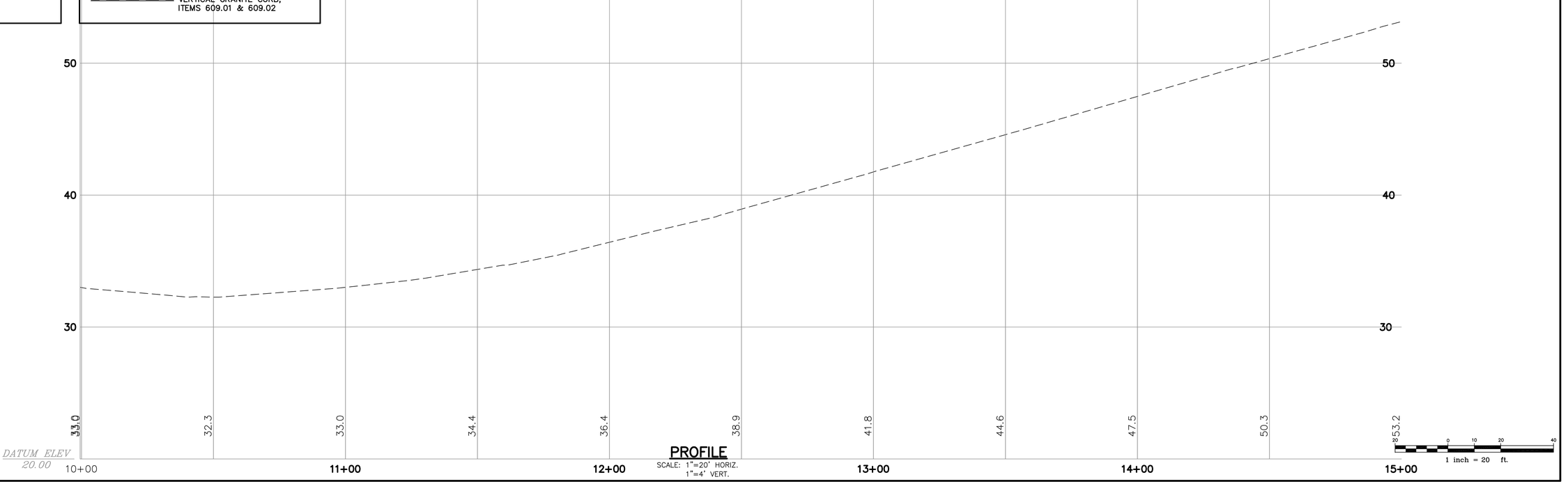
Client: **City of Portsmouth**
1 Junkins Avenue, Portsmouth, NH 03802

Drawing No. 7

C:\Data\Projects\Gorrill-Palmer\1672 Market St\CADD\dwg\1672GPRAMPS1_GEO.dwg

| SHEET NO. | TOTAL SHEETS |
|---|---|
| 8 | 26 |




**PAVEMENT LEGEND**

PROPOSED WIDENING

**CURBING LEGEND**

GRANITE SLOPE CURB 6" HIGH, ITEMS 609.216 & 609.236

VERTICAL GRANITE CURB, ITEMS 609.01 & 609.02

| Rev. | Date | Revision |
|---|---|---|
| 1 | 7/9/12 | REVISED TO RECLECT NHDOT COMMENTS |

| Issued For | Date | By |
|---|---|---|
| PS&E | 7/2/12 | RCN |
| NHDOT REVIEW | 5/7/12 | RCN |
| CITY/NHDOT REVIEW | 4/6/12 | RCN |

Design: RCN | Draft: DB | Date: APRIL 2012
Checked: TLG | Scale: 1"=20' | Job No.: 1672.01
File Name: 1672_RAMPS_GEO.dwg

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E-Mail: mailbox@gorrillpalmer.com

Drawing Name: **Geometrics Plan & Profile – 5**

Project: I-95 EXIT 7 (MARKET STREET) INTERCHANGE IMPROVEMENTS
PORTSMOUTH, NH

Client: **City of Portsmouth**
1 Junkins Avenue, Portsmouth, NH 03802

Drawing No. **8**

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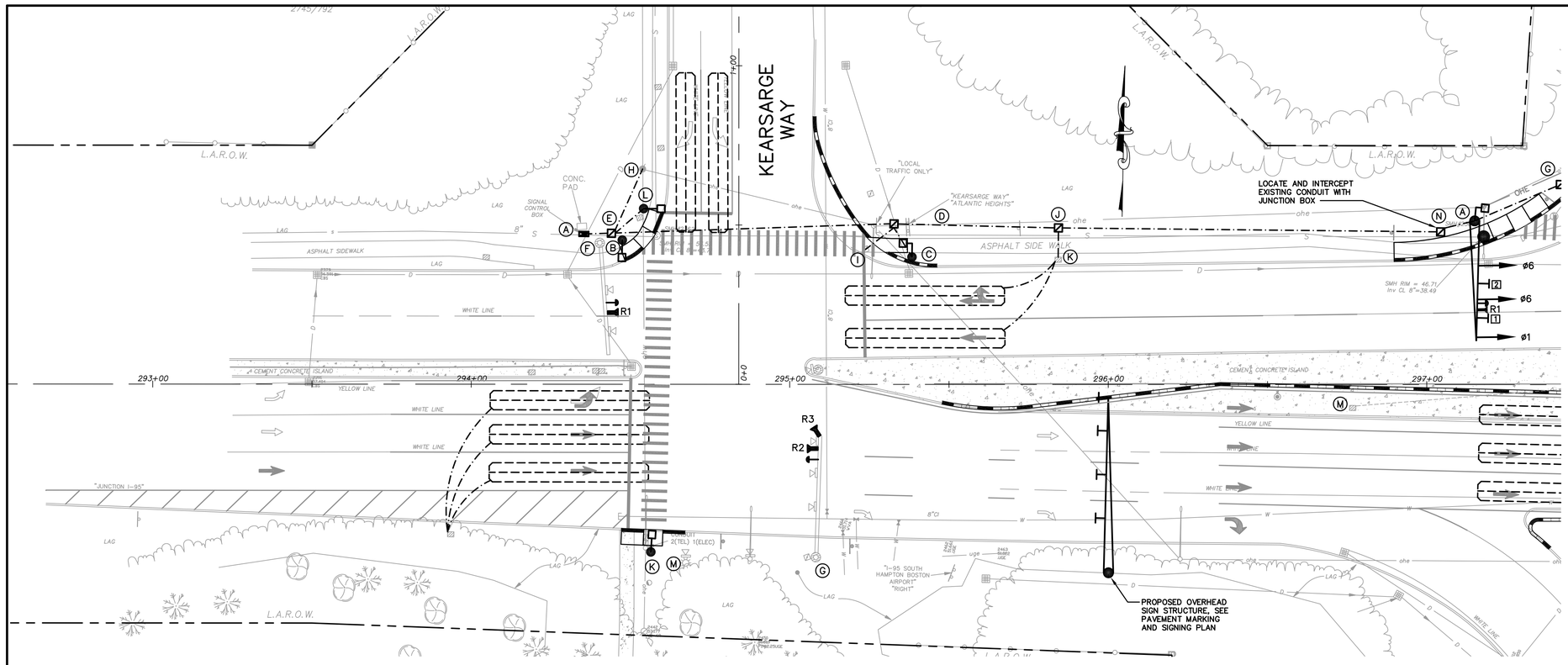



## GENERAL NOTES

1. ALL TRAFFIC SIGNAL CONDUIT CROSSING UNDER PAVEMENT SHALL BE 3" PVC SCHEDULE 80. ALL OTHER SIGNAL CONDUIT SHALL BE 3" PVC SCHEDULE 40.
2. ALL NEW MAST ARMS AND POLES SHALL BE HOT DIPPED AND GALVANIZED. MAST ARM POLES SHALL BE MANUFACTURED BY VALMONT INDUSTRIES OR UNION METAL CORP., OR APPROVED EQUAL.
3. ALL SIGNAL HEADS SHALL BE MOUNTED TO MAST ARMS WITH ASTROBRACKETS OR EQUIVALENT.
4. ALL SPLICES WILL BE MADE IN THE CABINETS/ JUNCTION BOXES MEETING NHDOT SPECIFICATIONS.
5. ALL PHASES SHALL HAVE DETECTION USING 6'x 50' WIRE LOOPS WITH IMSA 51-5 1988 CABLE IN THE STREET. EACH OF THESE LOOPS SHALL CONNECT TO A SEPARATE TERMINAL AND AMPLIFIER CHANNEL AND A 5 SECOND DELAY SET ON THE RIGHT TURN LOOP.
6. THE BOTTOM OF THE HOUSING OF THE SIGNAL FACE SHALL BE AT LEAST 16 FEET BUT NOT MORE THAN 19 FEET ABOVE THE PAVEMENT GRADE AT THE CENTER OF THE ROADWAY.
7. ALL MATERIALS AND WORK COMPLETED UNDER THIS CONTRACT SHALL CONFORM TO THE NHDOT STANDARD SPECIFICATIONS, SUPPLEMENTAL SPECIFICATIONS AND STANDARD DETAILS AND WITH THE FEDERAL HIGHWAY ADMINISTRATION "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES".
8. TWO COPIES OF RECORD DRAWINGS SHALL BE LEFT IN THE CONTROLLER CABINET.
9. CONTRACTOR SHALL PROVIDE, INSTALL AND RELOCATE ALL NECESSARY JUNCTION BOXES AND ASSOCIATED CONDUIT AND WIRING.
10. CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLETING PAVEMENT MARKING AS INDICATED ON PAVEMENT MARKING PLANS AND FOR REMOVING ANY PAVEMENT MARKING THAT CONFLICTS WITH THE PROPOSED PAVEMENT MARKING.
11. UTILITY LOCATIONS SHOWN ARE APPROXIMATE ONLY AND THE CONTRACTOR IS RESPONSIBLE FOR FINDING EXACT LOCATIONS OF UTILITIES PRIOR TO CONSTRUCTION.
12. CONTRACTOR SHALL CONTACT UTILITIES UPON AWARD OF THE CONTRACT. CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING DIG SAFE PRIOR TO ANY CONSTRUCTION.
13. CONTRACTOR IS RESPONSIBLE FOR OBTAINING NHDOT OPENING, EXCAVATION AND TRENCHING PERMITS, IF NECESSARY.
14. TRAFFIC SIGNAL WORK SHALL BE COMPLETED IN A MANNER AND ORDER THAT WILL CAUSE THE MINIMUM DISRUPTION TO TRAFFIC. WHEN THE TRAFFIC SIGNAL IS NOT OPERATIONAL DURING RELOCATION, A TRAFFIC OFFICER SHALL BE UTILIZED.
15. EACH TRAFFIC SIGNAL LOOP TO BE BROUGHT BACK TO THE CONTROLLER ON ITS OWN SEPARATE LEAD-IN CABLE.
16. LOCATIONS OF EXISTING CONDUIT ARE APPROXIMATE ONLY BASED ON AVAILABLE RECORD DRAWINGS.
17. A SEPARATE CIRCUIT SHALL BE INSTALLED IN THE EXISTING TRAFFIC CONTROL BOX FOR THE NEW HIGHWAY LIGHTING.
18. ALL EXISTING SIGNAL EQUIPMENT THAT IS REMOVED SHALL BE SALVAGED AND DELIVERED TO THE NHDOT, BUREAU OF TRAFFIC DURING NORMAL BUSINESS HOURS.
19. A FIRE PREEMPTION SYSTEM SHALL BE INSTALLED WITH AN OPTICAL RECIEVER FOR EACH APPROACH. THE SYSTEM SHALL BE THE LATEST APPROVED MODELS FOR EACH COMPONENT MANUFACTURED BY 3M (OPTICOM), NO SUBSTITUTIONS WILL BE PERMITTED.
20. NEW TRAFFIC SIGNAL CONTROLLERS SHALL BE TS2 TYPE '2'. IN ADDITION, A MASTER CONTROLLER SHALL BE LOCATED AT THIS INTERSECTION. THE INTERSECTIONS SHALL BE PROGRAMMED TO OPERATE WITHIN A CLOSED LOOP SYSTEM. CONTROLLER CABINET SHALL HAVE A TELEPHONE MODEM TO PROVIDE COMMUNICATION BETWEEN THE MASTER AND THE CITY OF PORTSMOUTH.
21. TWISTED PAIR COPPER INTERCONNECT SHALL BE PROVIDED BETWEEN INTERSECTIONS. INTERSECTIONS SHALL HAVE ALL NECESSARY EQUIPMENT AND SHALL BE PROGRAMMED TO OPERATE AS A CLOSED LOOP SIGNAL SYSTEM.
22. A GPS TIME CLOCK SHALL BE PROVIDED TO MAINTAIN THE PROPER TIME ON THE MASTER CONTROLLER.
23. A 30 AMP 125 V SEMI-FLUSH TRAFFIC SIGNAL GENERATOR TRANSFER SWITCH SHALL BE PROVIDED AT EACH CABINET WITH CONFIRMATION PILOT LIGHT TO INDICATE RESTORED POWER MOUNTED TO THE CONTROLLER CABINET. PARALLAX POWER SUPPLY MODEL ATS-301, GENTRAN CORP OR APPROVED EQUAL.

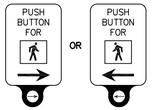
### EQUIPMENT SCHEDULE

| DESIGNATION | ITEM | DESCRIPTION |
|---|---|---|
| A | CONTROLLER CABINET | NEW CONTROLLER AND NEW P-CABINET, EXISTING CONTROLLER CABINET FOUNDATION SHALL BE EXPANDED TO ACCOMMODATE A P-CABINET WITH BASE EXTENSION |
| B,C,L,K | PROPOSED PEDESTAL POLE | PEDESTRIAN PUSH BUTTON, SIGNAL HEAD AND SIGN. |
| F,G | EXISTING MAST ARM | TO REMAIN |
| D,E,J | PROPOSED PRECAST CONCRETE | JUNCTION BOX |
| H | EXISTING UTILITY POLE | ADD RISER FOR TELEPHONE DROP |
| I | EXISTING JUNCTION BOX | REMOVE JUNCTION BOX, EXTEND CONDUIT TO JUNCTION BOX 'D'; PULL NEW CABLE AS REQUIRED. |
| K | EXISTING JUNCTION BOX | TO REMAIN |
| M | EXISTING SIGNAL POLE | CONNECT PROPOSED PEDESTRIAN POLE(K) AND WIRING TO EXISTING CONDUIT, PULL NEW WIRE TO CONTROLLER CABINET AS REQUIRED |

### PEDESTRIAN SIGNAL HEADS

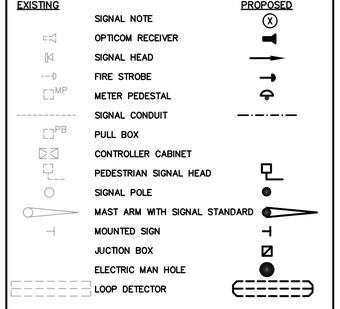
16"x18" LED WITH COUNT DOWN TIMER

### ACCESSIBLE PEDESTRIAN SIGNALS (APS)

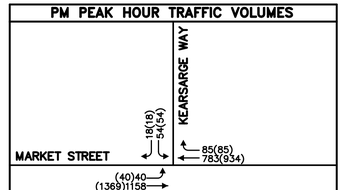



- CAMPBELL COMPANY ADVISOR APS A57 OR APPROVED EQUAL

### LEGEND



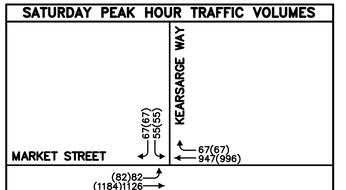

### PM PEAK HOUR TRAFFIC VOLUMES




XX = 2012 WEEKDAY PM BUILD CONDITION

(XX) = 2017 WEEKDAY PM BUILD CONDITION

### SATURDAY PEAK HOUR TRAFFIC VOLUMES




XX = 2007 SATURDAY BUILD CONDITION

(XX) = 2017 SATURDAY BUILD CONDITION

### DETECTOR SCHEDULE

| DETECTOR | | | AMPLIFIER | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| STREET | DIRECTION | LANE | ø | NO. | CHANNEL | INDUCT U H | RESIST. OF LOOP | RESIST. LOOP TO GROUND (MEG OHMS) | RESIST. SHIELD TO GROUND (MEG OHMS) |
| MARKET STREET | EB | L | 5 | 1 | 1 | | | | |
| MARKET STREET | EB | T | 2 | 1 | 2 | | | | |
| MARKET STREET | EB | T | 2 | 2 | 1 | | | | |
| MARKET STREET | WB | LT | 1 | 2 | 2 | | | | |
| MARKET STREET | WB | T | 6 | 3 | 1 | | | | |
| KEARSARGE WAY | SB | LT | 4 | 4 | 1 | | | | |
| KEARSARGE WAY | SB | RT | 4 | 4 | 2 | | | | |

RECORD FIELD MEASUREMENTS ABOVE

### CONDUIT SCHEDULE

| RUN | CENTER TO CENTER (LINEAR FEET) | COMMENTS |
|---|---|---|
| A-F | 8 | 3 INCH PVC |
| A-D | 102 | 3 INCH PVC |
| D-J | 50 | 3 INCH PVC |
| D-C | 12 | 3 INCH PVC |
| E-D | 100 | 3 INCH PVC |
| E-H | 21 | 3 INCH PVC |
| I-J | 12 | 3 INCH PVC |
| J-K | 8 | 3 INCH PVC |
| J-N | 118 | 3 INCH PVC |
| L-E | 12 | 3 INCH PVC |

### FIRE PREEMPTION

| | |
|---|---|
| R1 | SHALL CALL ø6 |
| R2 | SHALL CALL ø2 |
| R3 | SHALL CALL ø4 |

20 0 10 20 40

1 inch = 20 ft.

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| Rev. | Date | Revision |
|---|---|---|
| | | |

| Issued For | Date | By |
|---|---|---|
| PS&E | 7/2/12 | RCN |
| NHDOT REVIEW | 5/7/12 | RCN |
| CITY/NHDOT REVIEW | 4/6/12 | RCN |

| | | |
|---|---|---|
| Design: RCN | Draft: DB | Date: APRIL 2012 |
| Checked: TLG | Scale: 1"=20' | Job No.: 1672.01 |

File Name: 1672_MARKET_SIGNAL.dwg

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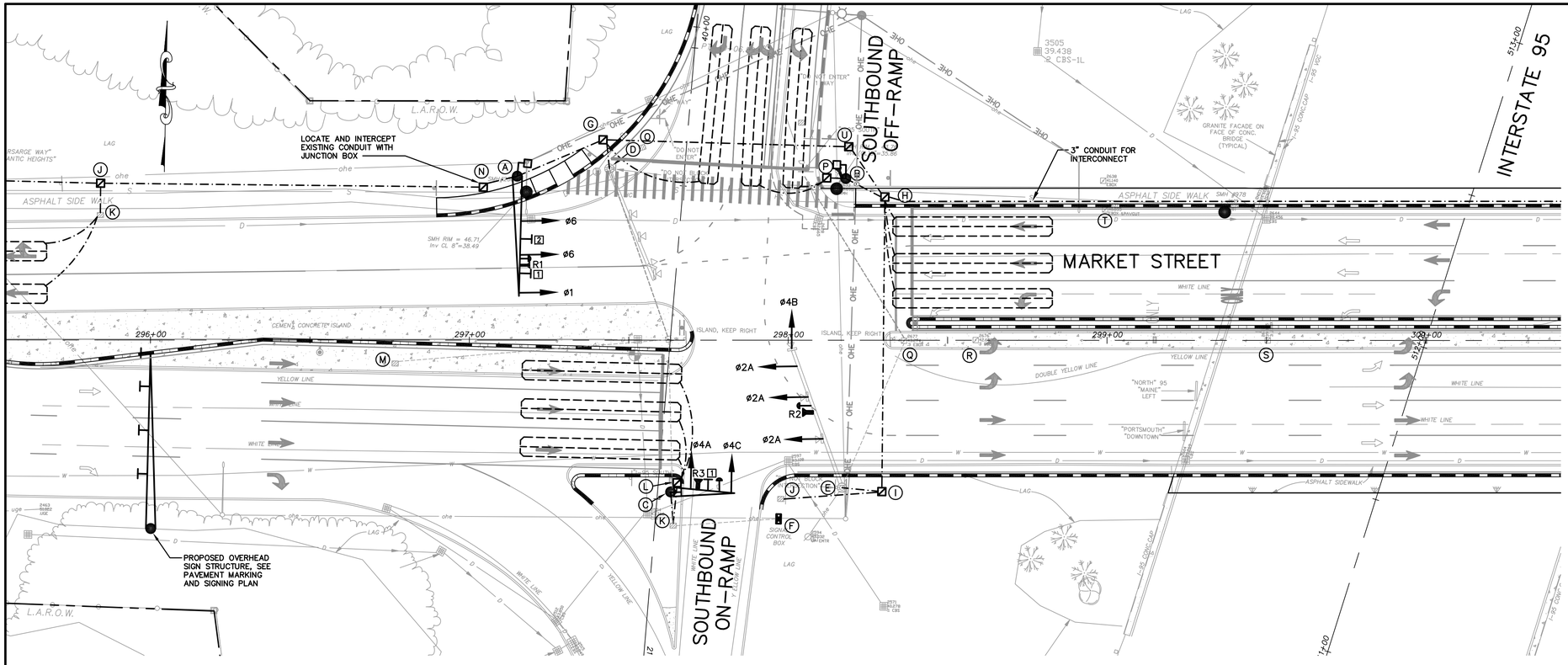
FAX: 207-657-6912
E-Mail: mailbox@gorrillpalmer.com

Drawing Name: **Signal Plan - 1**

Project: MARKET STREET ROADWAY IMPROVEMENTS
PORTSMOUTH, NH

Client: **City of Portsmouth**
1 Junkins Avenue, Portsmouth, NH 03802

Drawing No. 9




## GENERAL NOTES

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3. ALL SIGNAL HEADS SHALL BE MOUNTED TO MAST ARMS WITH ASTROBRACKETS OR EQUIVALENT.
4. ALL SPLICES WILL BE MADE IN THE CABINETS/ JUNCTION BOXES MEETING NHDOT SPECIFICATIONS.
5. ALL PHASES SHALL HAVE DETECTION USING 6'x 50' WIRE LOOPS WITH IMSA 51-5 1988 CABLE IN THE STREET. EACH OF THESE LOOPS SHALL CONNECT TO A SEPARATE TERMINAL AND AMPLIFIER CHANNEL AND A 5 SECOND DELAY SET ON THE RIGHT TURN LOOP.
6. THE BOTTOM OF THE HOUSING OF THE SIGNAL FACE SHALL BE AT LEAST 16 FEET BUT NOT MORE THAN 19 FEET ABOVE THE PAVEMENT GRADE AT THE CENTER OF THE ROADWAY.
7. ALL MATERIALS AND WORK COMPLETED UNDER THIS CONTRACT SHALL CONFORM TO THE NHDOT STANDARD SPECIFICATIONS, SUPPLEMENTAL SPECIFICATIONS AND STANDARD DETAILS AND WITH THE FEDERAL HIGHWAY ADMINISTRATION "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES".
8. TWO COPIES OF RECORD DRAWINGS SHALL BE LEFT IN THE CONTROLLER CABINET.
9. CONTRACTOR SHALL PROVIDE, INSTALL AND RELOCATE ALL NECESSARY JUNCTION BOXES AND ASSOCIATED CONDUIT AND WIRING.
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18. ALL EXISTING SIGNAL EQUIPMENT THAT IS REMOVED SHALL BE SALVAGED AND DELIVERED TO THE NHDOT, BUREAU OF TRAFFIC DURING NORMAL BUSINESS HOURS.
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20. NEW TRAFFIC SIGNAL CONTROLLERS SHALL BE TS2 TYPE '2'.
21. TWISTED PAIR COPPER INTERCONNECT SHALL BE PROVIDED BETWEEN INTERSECTIONS. INTERSECTIONS SHALL HAVE ALL NECESSARY EQUIPMENT AND SHALL BE PROGRAMMED TO OPERATE AS A CLOSED LOOP SIGNAL SYSTEM.
22. A 30 AMP 125 V SEMI-FLUSH TRAFFIC SIGNAL GENERATOR TRANSFER SWITCH SHALL BE PROVIDED AT EACH CABINET WITH CONFIRMATION PILOT LIGHT TO INDICATE RESTORED POWER MOUNTED TO THE CONTROLLER CABINET. PARALLAX POWER SUPPLY MODEL ATS-301, GENTRAN CORP OR APPROVED EQUAL.

### EQUIPMENT SCHEDULE

| DESIGNATION | ITEM | DESCRIPTION |
|---|---|---|
| A | RELOCATED MAST ARM | RELOCATED MAST ARM FROM D ON NEW 36" DIAMETER FOUNDATION |
| B | PROPOSED PEDESTAL POLE | PEDESTRIAN PUSH BUTTON, SIGNAL HEAD AND SIGN. |
| C | 21' MAST POLE WITH 20' MAST ARM | SIGNAL HEADS, SIGNS MINIMUM 24" DIAMETER FOUNDATION |
| D | EXISTING MAST ARM | RELOCATE TO A, EXTEND EXISTING CONDUIT TO JUNCTION BOX G AND PULL NEW CABLES FROM THE CONTROLLER TO POLE A |
| E | EXISTING MAST ARM | TO REMAIN |
| F | CONTROLLER CABINET | NEW CONTROLLER AND NEW P-CABINET, EXISTING CONTROLLER CABINET FOUNDATION SHALL BE EXPANDED TO ACCOMMODATE A P-CABINET WITH BASE EXTENSION |
| G, H, I, L, P, N & U | PROPOSED PRECAST CONCRETE | JUNCTION BOX |
| J & K | EXISTING JUNCTION BOX | TO REMAIN |
| M, O, Q, R, S, & T | EXISTING JUNCTION BOX | TO BE REMOVED |

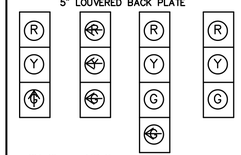
### DETECTOR SCHEDULE

| DETECTOR | | | AMPLIFIER | | | INDUCT U H | RESIST. OF LOOP | RESIST. LOOP TO GROUND (MEG OHMS) | RESIST. SHIELD TO GROUND (MEG OHMS) |
|---|---|---|---|---|---|---|---|---|---|
| STREET | DIRECTION | LANE | ø | NO. | CHANNEL | | | | |
| MARKET STREET | EB | T | 2 | 1 | 1 | | | | |
| MARKET STREET | EB | T | 2 | 1 | 2 | | | | |
| MARKET STREET | EB | T | 2 | 2 | 1 | | | | |
| MARKET STREET | WB | LT | 1 | 2 | 2 | | | | |
| MARKET STREET | WB | T | 6 | 3 | 1 | | | | |
| MARKET STREET | WB | T | 6 | 3 | 2 | | | | |
| I-95 SB RAMP | SB | LT | 4 | 4 | 1 | | | | |
| I-95 SB RAMP | SB | LT/T/RT | 4 | 4 | 2 | | | | |
| I-95 SB RAMP | SB | RT | 4 | 5 | 1 | | | | |

RECORD FIELD MEASUREMENTS ABOVE

### PROPOSED SIGNAL HEADS

ALL LENSES 12" LED WITH 5" LOUVERED BACK PLATE




### CONDUIT SCHEDULE

| RUN | CENTER TO CENTER (LINEAR FEET) | COMMENTS |
|---|---|---|
| A-G | 28 | 3 INCH PVC |
| A-N | 9 | 3 INCH PVC |
| B-H | 12 | 3 INCH PVC |
| H-I | 90 | 3 INCH PVC |
| I-J | 30 | 3 INCH PVC |
| G-D | 7 | 3 INCH PVC |
| P-B | 4 | 3 INCH PVC |
| C-K | 9 | 3 INCH PVC |
| L-K | 12 | 3 INCH PVC |
| E-I | 12 | 3 INCH PVC |
| G-U | 78 | 3 INCH PVC |
| U-H | 20 | 3 INCH PVC |

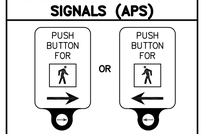
### SIGN LEGEND

R3-1
24"x24"
[2]

### PEDESTRIAN SIGNAL HEADS

16"x18" LED WITH COUNT DOWN TIMER

### ACCESSIBLE PEDESTRIAN SIGNALS (APS)




- CAMPBELL COMPANY ADVISOR APS A57 OR APPROVED EQUAL

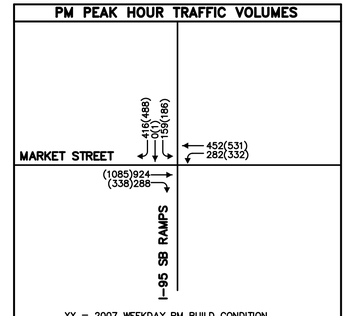
### LEGEND

| EXISTING | | PROPOSED |
|---|---|---|
| | SIGNAL NOTE | X |
| | OPTICOM RECEIVER | |
| | SIGNAL HEAD | |
| | FIRE STROBE | |
| MP | METER PEDESTAL | |
| | SIGNAL CONDUIT | |
| PB | PULL BOX | |
| | CONTROLLER CABINET | |
| | PEDESTRIAN SIGNAL HEAD | |
| | SIGNAL POLE | |
| | MAST ARM WITH SIGNAL STANDARD | |
| | MOUNTED SIGN | |
| | JUCTION BOX | |
| | ELECTRIC MAN HOLE | |
| | LOOP DETECTOR | |

### FIRE PREEMPTION

| | |
|---|---|
| R1 | SHALL CALL ø6 |
| R2 | SHALL CALL ø2 |
| R3 | SHALL CALL ø4 |

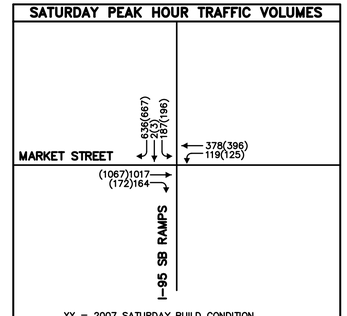
### PM PEAK HOUR TRAFFIC VOLUMES




XX = 2007 WEEKDAY PM BUILD CONDITION

(XX) = 2017 WEEKDAY PM BUILD CONDITION

### SATURDAY PEAK HOUR TRAFFIC VOLUMES




XX = 2007 SATURDAY BUILD CONDITION

(XX) = 2017 SATURDAY PM BUILD CONDITION

20 0 10 20 40

1 inch = 20 ft.

| Rev. | Date | Revision |
|---|---|---|
| 1 | 7/9/12 | REVISED TO RECLECT NHDOT COMMENTS |

| Issued For | Date | By |
|---|---|---|
| PS&E | 7/2/12 | RCN |
| NHDOT REVIEW | 5/7/12 | RCN |
| CITY/NHDOT REVIEW | 4/6/12 | RCN |

| | | |
|---|---|---|
| Design: RCN | Draft: DB | Date: APRIL 2012 |
| Checked: TLG | Scale: 1"=20' | Job No.: 1672.01 |
| File Name: 1672_MARKET_SIGNAL.dwg | | |

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Drawing Name: **Signal Plan – 2**

Project: MARKET STREET ROADWAY IMPROVEMENTS
PORTSMOUTH, NH

Client: **City of Portsmouth**
1 Junkins Avenue, Portsmouth, NH 03802

Drawing No. **10**

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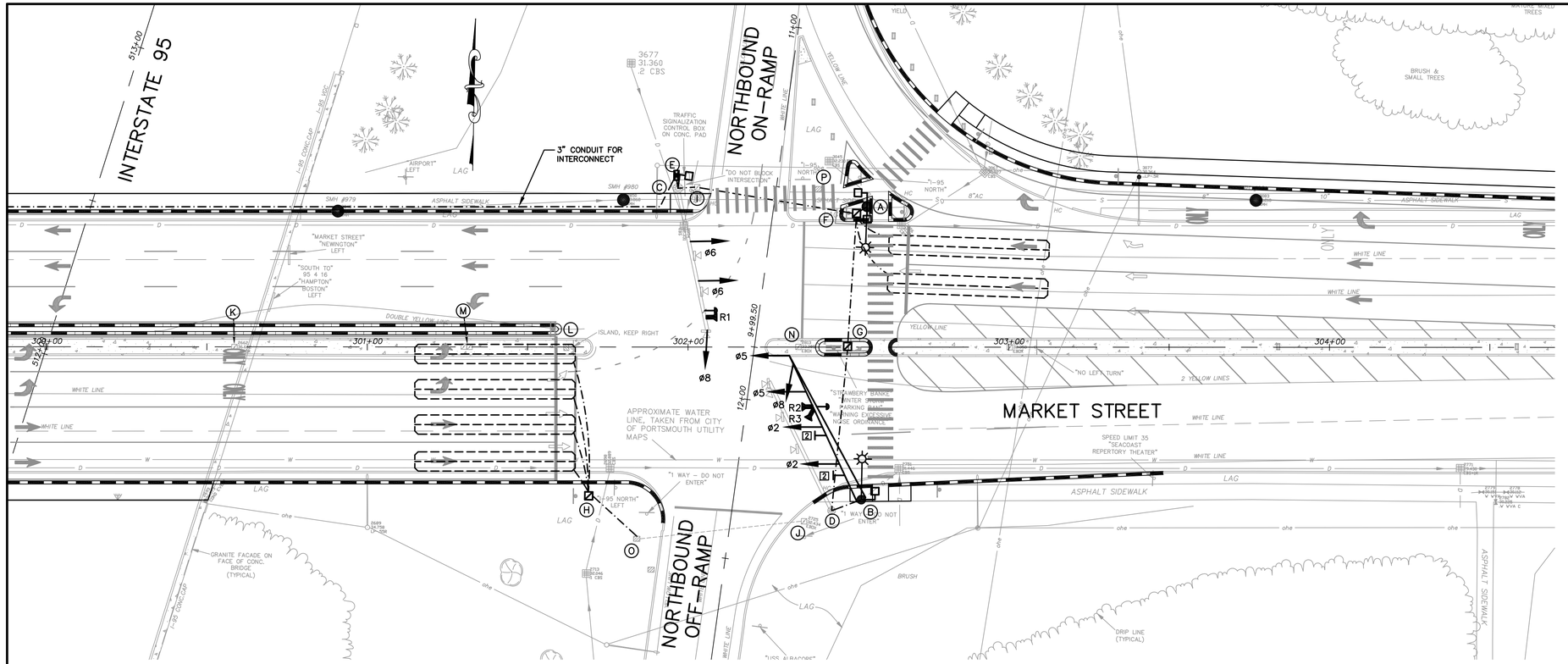



## GENERAL NOTES

1. ALL TRAFFIC SIGNAL CONDUIT CROSSING UNDER PAVEMENT SHALL BE 3" PVC SCHEDULE 80. ALL OTHER SIGNAL CONDUIT SHALL BE 3" PVC SCHEDULE 40.
2. ALL NEW MAST ARMS AND POLES SHALL BE HOT DIPPED AND GALVANIZED. MAST ARM POLES SHALL BE MANUFACTURED BY VALMONT INDUSTRIES OR UNION METAL CORP., OR APPROVED EQUAL.
3. ALL SIGNAL HEADS SHALL BE MOUNTED TO MAST ARMS WITH ASTROBRACKETS OR EQUIVALENT.
4. ALL SPLICES WILL BE MADE IN THE CABINETS/ JUNCTION BOXES MEETING NHDOT SPECIFICATIONS.
5. ALL PHASES SHALL HAVE DETECTION USING 6'x 50' WIRE LOOPS WITH IMSA 51–5 1988 CABLE IN THE STREET. EACH OF THESE LOOPS SHALL CONNECT TO A SEPARATE TERMINAL AND AMPLIFIER CHANNEL AND A 5 SECOND DELAY SET ON THE RIGHT TURN LOOP.
6. THE BOTTOM OF THE HOUSING OF THE SIGNAL FACE SHALL BE AT LEAST 16 FEET BUT NOT MORE THAN 19 FEET ABOVE THE PAVEMENT GRADE AT THE CENTER OF THE ROADWAY.
7. ALL MATERIALS AND WORK COMPLETED UNDER THIS CONTRACT SHALL CONFORM TO THE NHDOT STANDARD SPECIFICATIONS, SUPPLEMENTAL SPECIFICATIONS AND STANDARD DETAILS AND WITH THE FEDERAL HIGHWAY ADMINISTRATION "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES".
8. TWO COPIES OF RECORD DRAWINGS SHALL BE LEFT IN THE CONTROLLER CABINET.
9. CONTRACTOR SHALL PROVIDE, INSTALL AND RELOCATE ALL NECESSARY JUNCTION BOXES AND ASSOCIATED CONDUIT AND WIRING.
10. CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLETING PAVEMENT MARKING AS INDICATED ON PAVEMENT MARKING PLANS AND FOR REMOVING ANY PAVEMENT MARKING THAT CONFLICTS WITH THE PROPOSED PAVEMENT MARKING.
11. UTILITY LOCATIONS SHOWN ARE APPROXIMATE ONLY AND THE CONTRACTOR IS RESPONSIBLE FOR FINDING EXACT LOCATIONS OF UTILITIES PRIOR TO CONSTRUCTION.
12. CONTRACTOR SHALL CONTACT UTILITIES UPON AWARD OF THE CONTRACT. CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING DIG SAFE PRIOR TO ANY CONSTRUCTION.
13. CONTRACTOR IS RESPONSIBLE FOR OBTAINING NHDOT OPENING, EXCAVATION AND TRENCHING PERMITS, IF NECESSARY.
14. TRAFFIC SIGNAL WORK SHALL BE COMPLETED IN A MANNER AND ORDER THAT WILL CAUSE THE MINIMUM DISRUPTION TO TRAFFIC. WHEN THE TRAFFIC SIGNAL IS NOT OPERATIONAL DURING RELOCATION, A TRAFFIC OFFICER SHALL BE UTILIZED.
15. EACH TRAFFIC SIGNAL LOOP TO BE BROUGHT BACK TO THE CONTROLLER ON ITS OWN SEPARATE LEAD–IN CABLE.
16. LOCATIONS OF EXISTING CONDUIT ARE APPROXIMATE ONLY BASED ON AVAILABLE RECORD DRAWINGS.
17. A SEPARATE CIRCUIT SHALL BE INSTALLED IN THE EXISTING TRAFFIC CONTROL BOX FOR THE NEW HIGHWAY LIGHTING.
18. ALL EXISTING SIGNAL EQUIPMENT THAT IS REMOVED SHALL BE SALVAGED AND DELIVERED TO THE NHDOT, BUREAU OF TRAFFIC DURING NORMAL BUSINESS HOURS.
19. A FIRE PREEMPTION SYSTEM SHALL BE INSTALLED WITH AN OPTICAL RECIEVER FOR EACH APPROACH. THE SYSTEM SHALL BE THE LATEST APPROVED MODELS FOR EACH COMPONENT MANUFACTURED BY 3M (OPTICOM), NO SUBSTITUTIONS WILL BE PERMITTED.
20. NEW TRAFFIC SIGNAL CONTROLLERS SHALL BE TS2 TYPE '2'.
21. TWISTED PAIR COPPER INTERCONNECT SHALL BE PROVIDED BETWEEN INTERSECTIONS. INTERSECTIONS SHALL HAVE ALL NECESSARY EQUIPMENT AND SHALL BE PROGRAMMED TO OPERATE AS A CLOSED LOOP SIGNAL SYSTEM.
22. A 30 AMP 125 V SEMI–FLUSH TRAFFIC SIGNAL GENERATOR TRANSFER SWITCH SHALL BE PROVIDED AT EACH CABINET WITH CONFIRMATION PILOT LIGHT TO INDICATE RESTORED POWER MOUNTED TO THE CONTROLLER CABINET. PARALLAX POWER SUPPLY MODEL ATS–301, GENTRAN CORP OR APPROVED EQUAL.

### EQUIPMENT SCHEDULE

| DESIGNATION | ITEM | DESCRIPTION |
|---|---|---|
| A | 20' PEDESTAL POLE | PEDESTRIAN PUSH BUTTON, SIGNAL HEAD AND SIGN, 150W LUMINAIRE |
| B | 30' MAST POLE & 50' ARM | WITH SIGNAL HEADS, PEDESTRIAN BUTTON, SIGNAL HEAD & SIGN, 10' LUMINAIRE ARM WITH 250W LUMINAIRE |
| C | EXISTING MAST ARM | TO REMAIN, REMOVE & RESET EXISTING SIGNAL HEADS |
| D | EXISTING MAST ARM | TO BE REMOVED, CONVERT FOUNDATION TO JUNCTION BOX |
| E | CONTROLLER CABINET | NEW CONTROLLER AND NEW P–CABINET, EXISTING CONTROLLER CABINET FOUNDATION SHALL BE EXPANDED TO ACCOMMODATE A P–CABINET WITH BASE EXTENSION |
| F, G & H | PROPOSED PRECAST CONCRETE | JUNCTION BOX |
| I, J & O | EXISTING JUNCTION BOX | TO REMAIN |
| K, L, M, N & P | EXISTING JUNCTION BOX | TO BE REMOVED |

### CONDUIT SCHEDULE

| RUN | CENTER TO CENTER (LINEAR FEET) | COMMENTS |
|---|---|---|
| A–F | 3 | 3 INCH PVC |
| F–G | 39 | 3 INCH PVC |
| I–F | 48 | 3 INCH PVC |
| G–D | 51 | 3 INCH PVC |
| H–O | 19 | 3 INCH PVC |
| D–B | 10 | 3 INCH PVC |

### PROPOSED SIGNAL HEADS

ALL LENSES 12" LED WITH 5" LOUVERED BACK PLATE

ø5 | ø6 & ø8 | ø2,ø6A

### PEDESTRIAN SIGNAL HEADS

16"x18" LED WITH COUNT DOWN TIMER

### DETECTOR SCHEDULE

| DETECTOR STREET | DIRECTION | LANE | AMPLIFIER ø | AMPLIFIER NO. | AMPLIFIER CHANNEL | INDUCT U H | RESIST. OF LOOP | RESIST. LOOP TO GROUND (MEG OHMS) | RESIST. SHIELD TO GROUND (MEG OHMS) |
|---|---|---|---|---|---|---|---|---|---|
| MARKET STREET | EB | LT | 5 | 1 | 1 | | | | |
| MARKET STREET | EB | LT | 5 | 1 | 2 | | | | |
| MARKET STREET | EB | T | 2 | 2 | 1 | | | | |
| MARKET STREET | EB | T | 2 | 2 | 2 | | | | |
| MARKET STREET | WB | T | 6 | 3 | 1 | | | | |
| MARKET STREET | WB | T | 6 | 3 | 2 | | | | |
| I–95 | NB | RT | 8 | 4 | 1 | | | | |
| I–95 | NB | LT | 8 | 4 | 2 | | | | |

RECORD FIELD MEASUREMENTS ABOVE

### SIGN LEGEND

R3–1 24"x24" [2]

### FIRE PREEMPTION

| | |
|---|---|
| R1 | SHALL CALL ø6 |
| R2 | SHALL CALL ø2 |
| R3 | SHALL CALL ø8 |

### ACCESSIBLE PEDESTRIAN SIGNALS (APS)

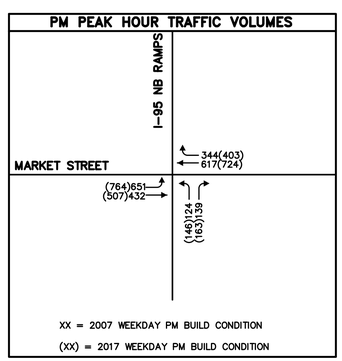
PUSH BUTTON FOR → OR PUSH BUTTON FOR ←

• CAMPBELL COMPANY ADVISOR APS A57 OR APPROVED EQUAL

### LEGEND

| EXISTING | | PROPOSED |
|---|---|---|
| | SIGNAL NOTE | (X) |
| | OPTICOM RECEIVER | |
| | SIGNAL HEAD | |
| | FIRE STROBE | |
| MP | METER PEDESTAL | |
| | SIGNAL CONDUIT | |
| PB | PULL BOX | |
| | CONTROLLER CABINET | |
| | PEDESTRIAN SIGNAL HEAD | |
| | SIGNAL POLE | |
| | MAST ARM WITH SIGNAL STANDARD | |
| | MOUNTED SIGN | |
| | JUCTION BOX | |
| | ELECTRIC MAN HOLE | |
| | LOOP DETECTOR | |

### PM PEAK HOUR TRAFFIC VOLUMES

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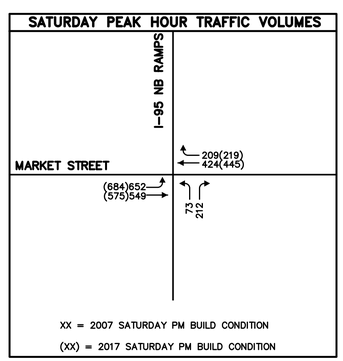
(XX) = 2017 WEEKDAY PM BUILD CONDITION

### SATURDAY PEAK HOUR TRAFFIC VOLUMES

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(XX) = 2017 SATURDAY PM BUILD CONDITION

20 0 10 20 40

1 inch = 20 ft.

| Rev. | Date | Revision |
|---|---|---|
| | | |

| Issued For | Date | By |
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| PS&E | 7/2/12 | RCN |
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Design: RCN | Draft: DB | Date: APRIL 2012
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File Name: 1672_MARKET_SIGNAL.dwg

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FAX: 207–657–6912
E–Mail: mailbox@gorrillpalmer.com

Drawing Name: **Signal Plan – 3**

Project: MARKET STREET ROADWAY IMPROVEMENTS PORTSMOUTH, NH

Client: **City of Portsmouth**
1 Junkins Avenue, Portsmouth, NH 03802

Drawing No. 11

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## MARKET STREET & KEARSARGE WAY

**COORDINATION CYCLE/SPLIT/OFFSET/FORCE-OFF DATA**

| | PLAN 1 | PLAN 2 | PLAN 3 |
|---|---|---|---|
| CYCLE LENGTH | 90 | 90 | 100 |
| OFFSET | 0 | 0 | 0 |
| YIELD POINT | 55 | 58 | 67 |
| | | | |
| SPLIT TIME ø1 | – | – | – |
| SPLIT TIME ø2 | 61 | 62 | 72 |
| SPLIT TIME ø3 | – | – | – |
| SPLIT TIME ø4 | 29 | 28 | 28 |
| SPLIT TIME ø5 | 18 | 21 | 21 |
| SPLIT TIME ø6 | 43 | 43 | 52 |
| SPLIT TIME ø7 | – | – | – |
| SPLIT TIME ø8 | – | – | – |
| | | | |
| FORCE OFF ø4 | 31 | 30 | 30 |
| FORCE OFF ø5 | 49 | 51 | 51 |

OFFSETS REFERENCED TO THE BEGINNING OF RED

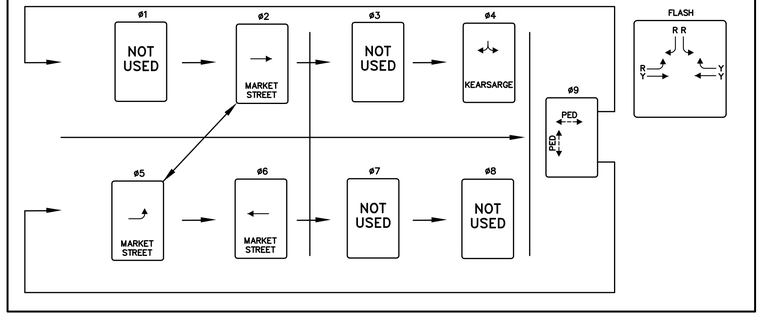
**SIGNAL PHASING**

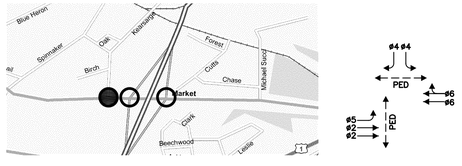
| TIMING IN SECONDS | ø1 | ø2 | ø3 | ø4 | ø5 | ø6 | ø7 | ø8 | ø9 |
|---|---|---|---|---|---|---|---|---|---|
| INITIAL INTERVAL | | 8 | | 4 | 4 | 8 | | | |
| VEHICLE EXTENSION | | 4 | | 3 | 3 | 4 | | | |
| MAXIMUM I | | 67 | | 28 | 15 | 44 | | | |
| MAXIMUM II | | | | | | | | | |
| YELLOW | | 4 | | 3 | 4 | 4 | | | |
| ALL RED | | 2 | | 3 | 2 | 2 | | | |
| | | | | | | | | | |
| FLASH | | Y | | R | R | Y | | | |
| RECALL | | SOFT | | | | SOFT | | | |
| DETECTOR | | PR | | PR | PR | PR | | | |
| PEDESTRIAN | | | | | | | | | 4 |
| PEDESTRIAN CLEAR | | | | | | | | | 24 |

**DAILY AND WEEKLY COORDINATION PROGRAM**

| | MON–FRI | SATURDAY | SUNDAY |
|---|---|---|---|
| PLAN 1 90 SECOND CYCLE AM | 7:00 AM TO 11:00 AM | | |
| PLAN 2 90 SECOND CYCLE PM | 11:00 AM TO 7:00 PM | | |
| PLAN 3 100 SECOND CYCLE WEEKEND | | 7:00 AM TO 7:00 PM | 7:00 AM TO 7:00 PM |
| FREE OPERATION | 7:00 PM TO 7:00 AM | 7:00 PM TO 7:00 AM | 7:00 PM TO 7:00 AM |

**STANDARD 8ø NEMA CONTROLLER**







## MARKET STREET & I–95 SB OFF RAMP

**COORDINATION CYCLE/SPLIT/OFFSET/FORCE-OFF DATA**

| | PLAN 1 | PLAN 2 | PLAN 3 |
|---|---|---|---|
| CYCLE LENGTH | 90 | 90 | 100 |
| OFFSET | 55 | 58 | 61 |
| YIELD POINT | 19 | 29 | 30 |
| | | | |
| SPLIT TIME ø1 | 26 | 23 | 21 |
| SPLIT TIME ø2 | 25 | 35 | 36 |
| SPLIT TIME ø3 | – | – | – |
| SPLIT TIME ø4 | 39 | 23 | 43 |
| SPLIT TIME ø5 | – | – | – |
| SPLIT TIME ø6 | 51 | 67 | 57 |
| SPLIT TIME ø7 | – | – | – |
| SPLIT TIME ø8 | – | – | – |
| | | | |
| FORCE OFF ø1 | 90 | 90 | 90 |
| FORCE OFF ø4 | 41 | 25 | 45 |

OFFSETS REFERENCED TO THE BEGINNING OF RED

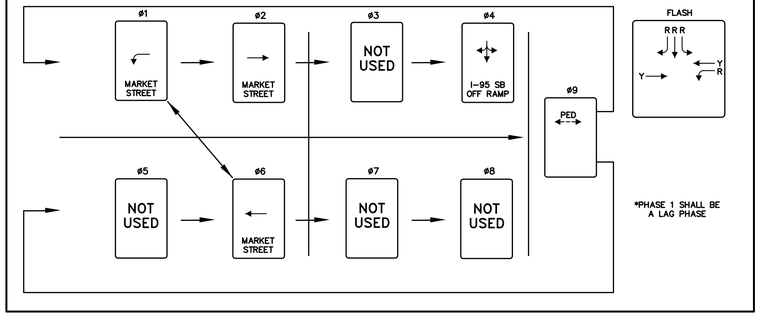
**SIGNAL PHASING**

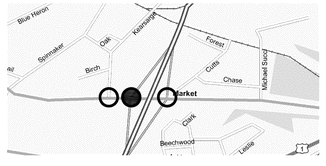
| TIMING IN SECONDS | ø1 | ø2 | ø3 | ø4 | ø5 | ø6 | ø7 | ø8 | ø9 |
|---|---|---|---|---|---|---|---|---|---|
| INITIAL INTERVAL | 4 | 8 | | 4 | | 8 | | | |
| VEHICLE EXTENSION | 3 | 4 | | 3 | | 4 | | | |
| MAXIMUM I | 15 | 30 | | 37 | | 51 | | | |
| MAXIMUM II | | | | | | | | | |
| YELLOW | 4 | 4 | | 3 | | 4 | | | |
| ALL RED | 2 | 2 | | 3 | | 2 | | | |
| | | | | | | | | | |
| FLASH | R | Y | | R | | Y | | | |
| RECALL | | SOFT | | | | SOFT | | | |
| DETECTOR | PR | PR | | PR | | PR | | | |
| PEDESTRIAN | | | | | | | | | 4 |
| PEDESTRIAN CLEAR | | | | | | | | | 26 |

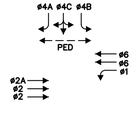
**DAILY AND WEEKLY COORDINATION PROGRAM**

| | MON–FRI | SATURDAY | SUNDAY |
|---|---|---|---|
| PLAN 1 90 SECOND CYCLE AM | 7:00 AM TO 11:00 AM | | |
| PLAN 2 90 SECOND CYCLE PM | 11:00 AM TO 7:00 PM | | |
| PLAN 3 100 SECOND CYCLE WEEKEND | | 7:00 AM TO 7:00 PM | 7:00 AM TO 7:00 PM |
| FREE OPERATION | 7:00 PM TO 7:00 AM | 7:00 PM TO 7:00 AM | 7:00 PM TO 7:00 AM |

**STANDARD 8ø NEMA CONTROLLER**




## MARKET STREET & I–95 NB ON RAMP

**COORDINATION CYCLE/SPLIT/OFFSET/FORCE-OFF DATA**

| | PLAN 1 | PLAN 2 | PLAN 3 |
|---|---|---|---|
| CYCLE LENGTH | 90 | 90 | 100 |
| OFFSET | 30 | 59 | 82 |
| YIELD POINT | 44 | 61 | 68 |
| | | | |
| SPLIT TIME ø1 | – | – | – |
| SPLIT TIME ø2 | 52 | 67 | 74 |
| SPLIT TIME ø3 | – | – | – |
| SPLIT TIME ø4 | – | – | – |
| SPLIT TIME ø5 | 14 | 21 | 36 |
| SPLIT TIME ø6 | 38 | 36 | 38 |
| SPLIT TIME ø7 | – | – | – |
| SPLIT TIME ø8 | 38 | 23 | 26 |
| | | | |
| FORCE OFF ø5 | 54 | 56 | 64 |
| FORCE OFF ø8 | 40 | 25 | 28 |

OFFSETS REFERENCED TO THE BEGINNING OF RED

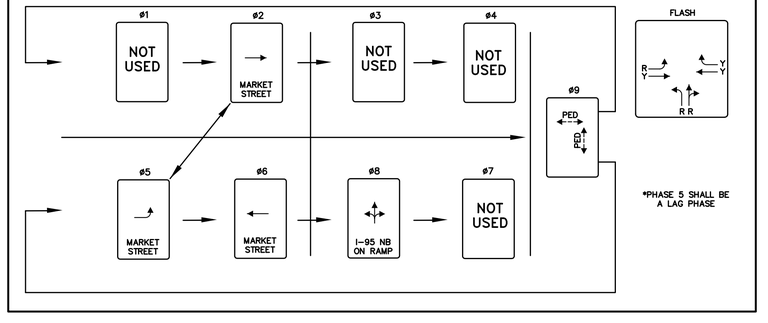
**SIGNAL PHASING**

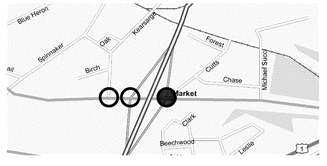
| TIMING IN SECONDS | ø1 | ø2 | ø3 | ø4 | ø5 | ø6 | ø7 | ø8 | ø9 |
|---|---|---|---|---|---|---|---|---|---|
| INITIAL INTERVAL | | 8 | | | 4 | 8 | | 8 | |
| VEHICLE EXTENSION | | 4 | | | 3 | 4 | | 4 | |
| MAXIMUM I | | 62 | | | 36 | 26 | | 26 | |
| MAXIMUM II | | | | | | | | | |
| YELLOW | | 4 | | | 4 | 4 | | 3 | |
| ALL RED | | 2 | | | 2 | 2 | | 3 | |
| | | | | | | | | | |
| FLASH | | Y | | | R | Y | | R | |
| RECALL | | SOFT | | | | SOFT | | | |
| DETECTOR | | PR | | | PR | PR | | PR | |
| PEDESTRIAN | | | | | | | | | 4 |
| PEDESTRIAN CLEAR | | | | | | | | | 22 |

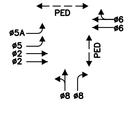
**DAILY AND WEEKLY COORDINATION PROGRAM**

| | MON–FRI | SATURDAY | SUNDAY |
|---|---|---|---|
| PLAN 1 90 SECOND CYCLE AM | 7:00 AM TO 11:00 AM | | |
| PLAN 2 90 SECOND CYCLE PM | 11:00 AM TO 7:00 PM | | |
| PLAN 3 100 SECOND CYCLE WEEKEND | | 7:00 AM TO 7:00 PM | 7:00 AM TO 7:00 PM |
| FREE OPERATION | 7:00 PM TO 7:00 AM | 7:00 PM TO 7:00 AM | 7:00 PM TO 7:00 AM |

**STANDARD 8ø NEMA CONTROLLER**




| Rev. | Date | Revision |
|---|---|---|
| | | |

| Issued For | Date | By |
|---|---|---|
| PS&E | 7/2/12 | RCN |
| NHDOT REVIEW | 5/7/12 | RCN |
| CITY/NHDOT REVIEW | 4/6/12 | RCN |

| | | |
|---|---|---|
| Design: RCN | Draft: DB | Date: APRIL 2012 |
| Checked: TLG | Scale: NONE | Job No.: 1672.01 |
| File Name: 1672_MARKET_SIGNAL_dwg | | |

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207–657–6910
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E–Mail: mailbox@gorrillpalmer.com

Drawing Name: **Signal Timing Plan**

Project: MARKET STREET ROADWAY IMPROVEMENTS
PORTSMOUTH, NH

Client: **City of Portsmouth**
1 Junkins Avenue, Portsmouth, NH 03802

Drawing No. 12

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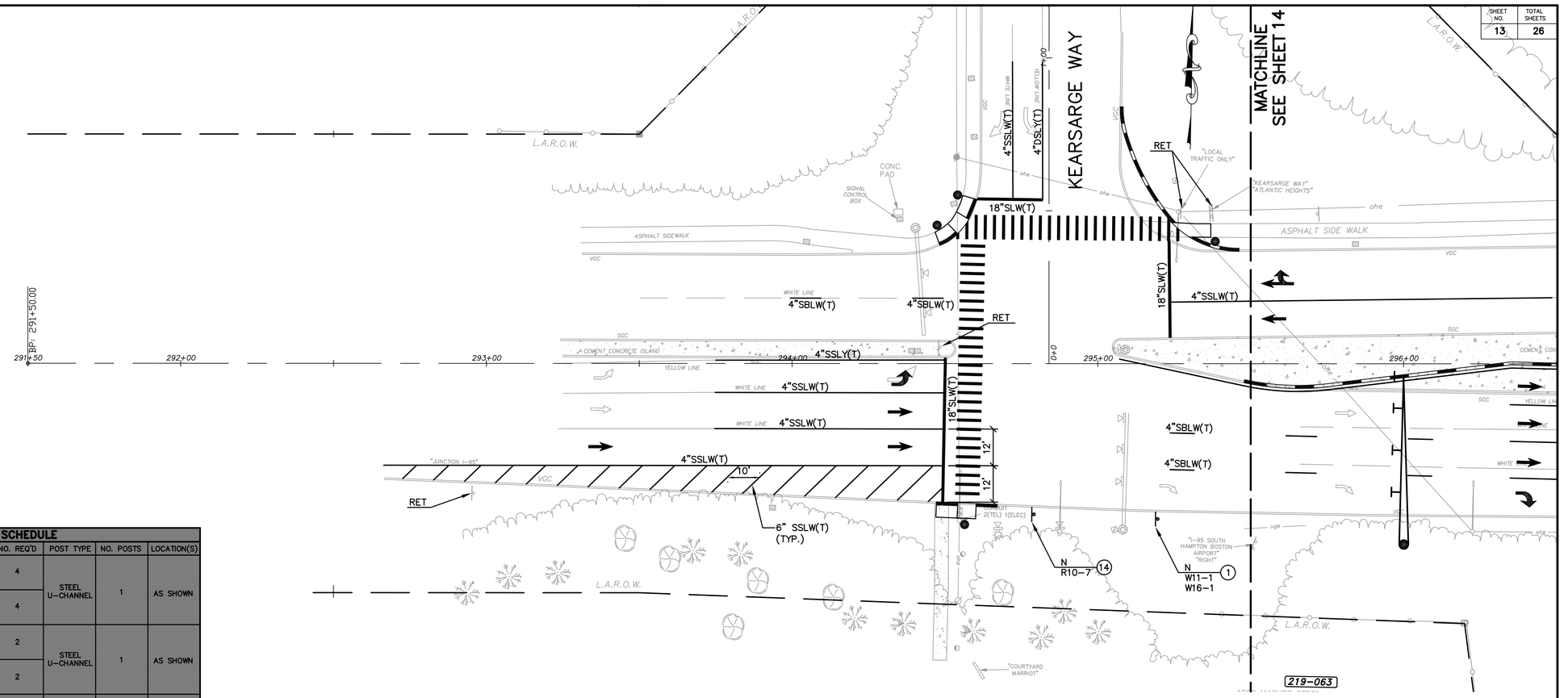


## NEW SIGN SCHEDULE

| Ⓧ | | DESIGNATION | SIZE | NO. REQ'D | POST TYPE | NO. POSTS | LOCATION(S) |
|---|---|---|---|---|---|---|---|
| ① | SHARE THE ROAD | W11-1 | 30"x30" | 4 | STEEL U-CHANNEL | 1 | AS SHOWN |
| | | W16-1 | 24"x30" | 4 | | | |
| ② | | W11-2 | 30"x30" | 2 | STEEL U-CHANNEL | 1 | AS SHOWN |
| | | W16-7p(M) | 24"x18" | 2 | | | |
| ③ | NORTH ONLY | GUIDE | 36"x48" | 1 | N/A | OVERHEAD SIGN | AS SHOWN |
| ④ | ONLY | R3-5a | 36"x48" | 2 | N/A | OVERHEAD SIGN | AS SHOWN |
| ⑤ | SOUTH ONLY | GUIDE | 36"x48" | 1 | N/A | OVERHEAD SIGN | AS SHOWN |
| ⑥ | | R4-7 | 24"x30" | 4 | STEEL U-CHANNEL | 1 | AS SHOWN |
| | | OMI-3 | 18"x18" | 4 | | | |
| ⑦ | | W3-2 | 36"x36" | 1 | STEEL U-CHANNEL | 1 | AS SHOWN |
| ⑧ | | R3-4 | 24"x24" | 2 | STEEL U-CHANNEL | 1 | AS SHOWN |
| ⑨ | | R3-2 | 24"x24" | 2 | STEEL U-CHANNEL | 1 | AS SHOWN |
| ⑬ | NO TURN ON RED | R10-11A | 24"x30" | 1 | STEEL U-CHANNEL | 1 | AS SHOWN |
| ⑭ | DO NOT BLOCK | R10-7 | 24"x30" | 1 | STEEL U-CHANNEL | 1 | AS SHOWN |

### STRIPING LEGEND

SIGNAGE, STRIPING AND PAVEMENT MARKING SHALL BE IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) REGARDING SIZE, INSTALLATION, LOCATION & REFLECTIVITY. ALL LANE USE SYMBOLS AND CROSSWALKS SHALL BE THERMOPLASTIC. ALL LANE LINES SHALL BE PAINT.

- 18"SLW(T) – 18" WIDTH STOP LINE WHITE (THERMOPLASTIC)
- 4"SSLW(T) – 4" WIDTH SINGLE SOLID LINE WHITE (THERMOPLASTIC)
- 4"SSLY(T) – 4" WIDTH SINGLE SOLID LINE YELLOW (THERMOPLASTIC)
- 6"SSLW(T) – 6" WIDTH SINGLE SOLID LINE WHITE (THERMOPLASTIC)
- 4"DSLY(T) – 4" WIDTH DOUBLE SOLID LINE YELLOW (THERMOPLASTIC)
- 4"SBLW(T) – 4" WIDTH SINGLE BROKEN LINE WHITE (THERMOPLASTIC)

### CURBING LEGEND

- GRANITE SLOPE CURB 6" HIGH, ITEMS 609.216 & 609.236
- VERTICAL GRANITE CURB, ITEMS 609.01 & 609.02

### ABBREVIATIONS

| | |
|---|---|
| REL | RELOCATE |
| REM | REMOVE |
| RET | RETAIN |
| N | NEW |

NOTES:

1. ALL SYMBOLS, WORDS, STOP BARS, CROSSWALKS, LANE LINES AND OTHER MARKINGS NOTED WITH (T) SHALL BE THERMO PLASTIC.
2. THE CONTRACTOR SHALL CONTACT PETER CROUCH AT THE BUREAU OF TRAFFIC (603) 271-2291 ONE WEEK PRIOR TO PAVEMENT MARKING INSTALLATION.
3. ALL THROUGH ARROWS SHOWN ON PLANS FOR INFORMATION ONLY. DO NOT INSTALL THROUGH ARROWS.

20 0 10 20 40
1 inch = 20 ft.

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| Rev. | Date | Revision |
|---|---|---|
| | | |

| Issued For | Date | By |
|---|---|---|
| PS&E | 7/2/12 | RCN |
| NHDOT REVIEW | 5/7/12 | RCN |
| CITY/NHDOT REVIEW | 4/6/12 | RCN |

| | | |
|---|---|---|
| Design: RCN | Draft: DB | Date: APRIL 2012 |
| Checked: TLG | Scale: 1"=20' | Job No.: 1672.01 |

File Name: 1672_MARKET_STRIPING.dwg

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207-657-6910
FAX: 207-657-6912
E-Mail: mailbox@gorrillpalmer.com

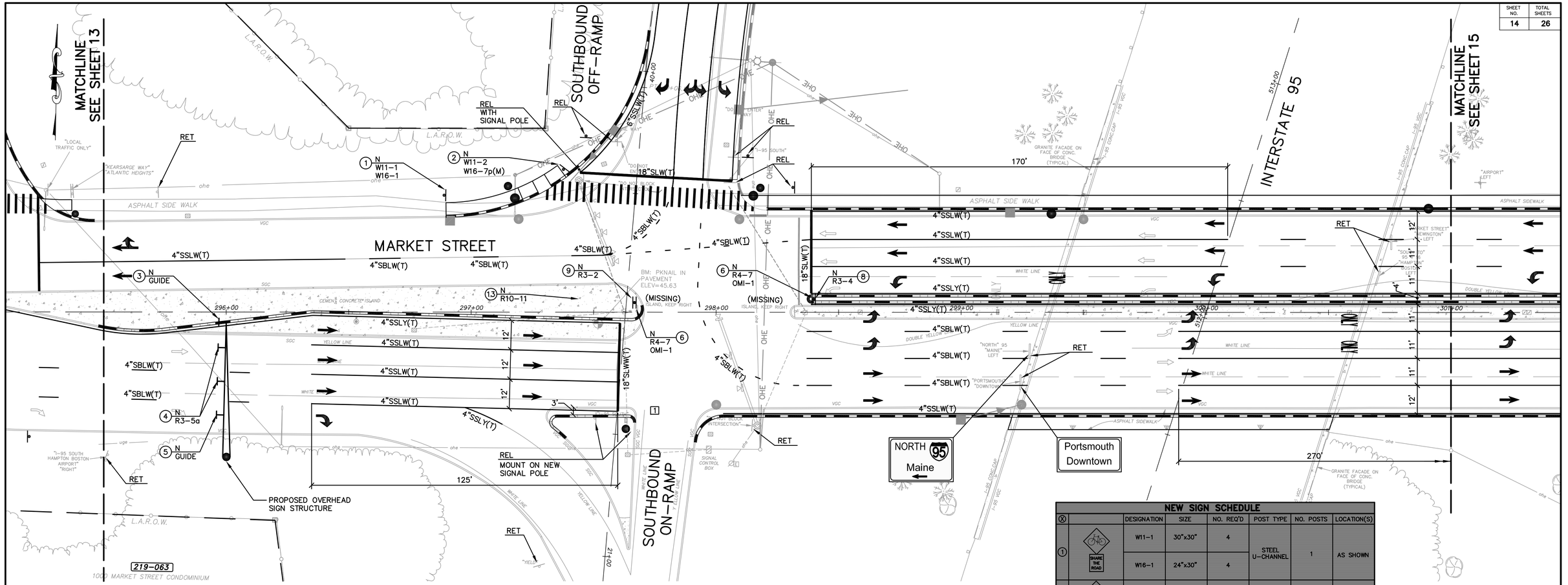
Drawing Name: **Pavement Marking & Signing Plan – 1**

Project: MARKET STREET ROADWAY IMPROVEMENTS
PORTSMOUTH, NH

Client: **City of Portsmouth**
1 Junkins Avenue, Portsmouth, NH 03802

Drawing No. **13**

| SHEET NO. | TOTAL SHEETS |
|---|---|
| 14 | 26 |




## NEW SIGN SCHEDULE

| Ⓧ | | DESIGNATION | SIZE | NO. REQ'D | POST TYPE | NO. POSTS | LOCATION(S) |
|---|---|---|---|---|---|---|---|
| ① | ONE SHARE THE ROAD | W11-1 | 30"x30" | 4 | STEEL U-CHANNEL | 1 | AS SHOWN |
| | | W16-1 | 24"x30" | 4 | | | |
| ② | | W11-2 | 30"x30" | 2 | STEEL U-CHANNEL | 1 | AS SHOWN |
| | | W16-7p(M) | 24"x18" | 2 | | | |
| ③ | NORTH 95 ONLY | GUIDE | 36"x48" | 1 | N/A | OVERHEAD SIGN | AS SHOWN |
| ④ | ONLY | R3-5a | 36"x48" | 2 | N/A | OVERHEAD SIGN | AS SHOWN |
| ⑤ | SOUTH 95 ONLY | GUIDE | 36"x48" | 1 | N/A | OVERHEAD SIGN | AS SHOWN |
| ⑥ | | R4-7 | 24"x30" | 4 | STEEL U-CHANNEL | 1 | AS SHOWN |
| | | OMI-3 | 18"x18" | 4 | | | |
| ⑦ | | W3-2 | 36"x36" | 1 | STEEL U-CHANNEL | 1 | AS SHOWN |
| ⑧ | | R3-4 | 24"x24" | 2 | STEEL U-CHANNEL | 1 | AS SHOWN |
| ⑨ | | R3-2 | 24"x24" | 2 | STEEL U-CHANNEL | 1 | AS SHOWN |
| ⑬ | NO TURN ON RED | R10-11A | 24"x30" | 1 | STEEL U-CHANNEL | 1 | AS SHOWN |
| ⑭ | DO NOT BLOCK | R10-7 | 24"x30" | 1 | STEEL U-CHANNEL | 1 | AS SHOWN |

## STRIPING LEGEND

SIGNAGE, STRIPING AND PAVEMENT MARKING SHALL BE IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) REGARDING SIZE, INSTALLATION, LOCATION & REFLECTIVITY. ALL LANE USE SYMBOLS AND CROSSWALKS SHALL BE THERMOPLASTIC. ALL LANE LINES SHALL BE PAINT.

- 18"SLW(T) – 18" WIDTH STOP LINE WHITE (THERMOPLASTIC)
- 4"SSLW(T) – 4" WIDTH SINGLE SOLID LINE WHITE (THERMOPLASTIC)
- 4"SSLY(T) – 4" WIDTH SINGLE SOLID LINE YELLOW (THERMOPLASTIC)
- 6"SSLW(T) – 6" WIDTH SINGLE SOLID LINE WHITE (THERMOPLASTIC)
- 4"DSLY(T) – 4" WIDTH DOUBLE SOLID LINE YELLOW (THERMOPLASTIC)
- 4"SBLW(T) – 4" WIDTH SINGLE BROKEN LINE WHITE (THERMOPLASTIC)

## CURBING LEGEND

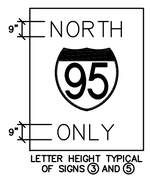
- GRANITE SLOPE CURB 6" HIGH, ITEMS 609.216 & 609.236
- VERTICAL GRANITE CURB, ITEMS 609.01 & 609.02

## ABBREVIATIONS

| | |
|---|---|
| REL | RELOCATE |
| REM | REMOVE |
| RET | RETAIN |
| N | NEW |

NOTES:

1. ALL SYMBOLS, WORDS, STOP BARS, CROSSWALKS, LANE LINES AND OTHER MARKINGS NOTED WITH (T) SHALL BE THERMO PLASTIC.
2. THE CONTRACTOR SHALL CONTACT PETER CROUCH AT THE BUREAU OF TRAFFIC (603) 271-2291 ONE WEEK PRIOR TO PAVEMENT MARKING INSTALLATION.
3. ALL THROUGH ARROWS SHOWN ON PLANS FOR INFORMATION ONLY. DO NOT INSTALL THROUGH ARROWS.




LETTER HEIGHT TYPICAL OF SIGNS ③ AND ⑤

1 inch = 20 ft.

| Rev. | Date | Revision |
|---|---|---|
| 1 | 7/9/12 | REVISED TO RECLECT NHDOT COMMENTS |

| | | |
|---|---|---|
| PS&E | 7/2/12 | RCN |
| NHDOT REVIEW | 5/7/12 | RCN |
| CITY/NHDOT REVIEW | 4/6/12 | RCN |
| Issued For | Date | By |

Design: RCN | Draft: DB | Date: APRIL 2012
Checked: TLG | Scale: 1"=20' | Job No.: 1672.01
File Name: 1672_MARKET_STRIPING.dwg

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Drawing Name: **Pavement Marking & Signing Plan – 2**

Project: MARKET STREET ROADWAY IMPROVEMENTS
PORTSMOUTH, NH

Client: **City of Portsmouth**
1 Junkins Avenue, Portsmouth, NH 03802

Drawing No. 14

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| SHEET NO. | TOTAL SHEETS |
|---|---|
| 15 | 26 |

MATCHLINE SEE SHEET 16

MATCHLINE SEE SHEET 14

NORTHBOUND ON-RAMP

NORTHBOUND OFF-RAMP

MARKET STREET

210-002
BETHEL ASSEMBLY OF GOD
200 CHASE DRIVE
PORTSMOUTH, NH 03801

209-032
NANCY A. GOBBI
207 CUTTS STREET
PORTSMOUTH, NH 03801

L.A.R.O.W.

MATURE MIXED TREES

BRUSH & SMALL TREES

ASPHALT SIDEWALK

GRANITE FACADE ON FACE OF CONC. BRIDGE (TYPICAL)

BRUSH

DRIP LINE (TYPICAL)

TRAFFIC SIGNALIZATION CONTROL BOX ON CONC. PAD

"AIRPORT" LEFT

"DO NOT BLOCK INTERSECTION"

"I-95 NORTH" "MAINE" RIGHT

"MARKET STREET" "NEWINGTON" LEFT

"SOUTH TO" 95 4 16 "HAMPTON" "BOSTON" LEFT

ISLAND, KEEP RIGHT

"STRAWBERY BANKE" "WINTER PARKING" "WARNING EXCESSIVE NOISE ORDINANCE"

"NO LEFT TURN"

2 YELLOW LINES

SPEED LIMIT 35 "SEACOAST REPERTORY THEATER"

"1 WAY - DO NOT ENTER"

"I-95 NORTH" LEFT

"USS ALBACORE" RIGHT

"PORTSMOUTH HARBOR TOUR" RIGHT

250'

270'

301+00 302+00 303+00 304+00 305+00 306+00

9+99.50

12+00

11+00

PT=10+42.10

4"SSLW(T)
4"SBLW(T)
4"SSLY(T)
6"SSLW(T)
18"SLW(T)
12'
11'
REM
RET
REL
N R2-1 (15)
N W11-2 W16-7p(M) (2)
N W3-2a (7)
N W11-1 W16-1 (1)
N R3-2 (9)
N R3-4 (8)
N R4-7 OMI-1 (6)
N R4-7 OMI-3 (6)
6" SSLW(T) (TYP.)
REMOVE & RESET CURB
ONLY
NO

NOTES:

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## CURBING LEGEND

- GRANITE SLOPE CURB 6" HIGH, ITEMS 609.216 & 609.236
- VERTICAL GRANITE CURB, ITEMS 609.01 & 609.02

## ABBREVIATIONS

| | |
|---|---|
| REL | RELOCATE |
| REM | REMOVE |
| RET | RETAIN |
| N | NEW |

## NEW SIGN SCHEDULE

| ⊗ | | DESIGNATION | SIZE | NO. REQ'D | POST TYPE | NO. POSTS | LOCATION(S) |
|---|---|---|---|---|---|---|---|
| ① | SHARE THE ROAD | W11-1 | 30"x30" | 4 | STEEL U-CHANNEL | 1 | AS SHOWN |
| | | W16-1 | 24"x30" | 4 | | | |
| ② | | W11-2 | 30"x30" | 2 | STEEL U-CHANNEL | 1 | AS SHOWN |
| | | W16-7p(M) | 24"x18" | 2 | | | |
| ③ | NORTH ONLY | GUIDE | 36"x48" | 1 | N/A | OVERHEAD SIGN | AS SHOWN |
| ④ | ONLY | R3-5a | 36"x48" | 2 | N/A | OVERHEAD SIGN | AS SHOWN |
| ⑤ | SOUTH ONLY | GUIDE | 36"x48" | 1 | N/A | OVERHEAD SIGN | AS SHOWN |
| ⑥ | | R4-7 | 24"x30" | 4 | STEEL U-CHANNEL | 1 | AS SHOWN |
| | | OMI-3 | 18"x18" | 4 | | | |
| ⑦ | | W3-2 | 36"x36" | 1 | STEEL U-CHANNEL | 1 | AS SHOWN |
| ⑧ | | R3-4 | 24"x24" | 2 | STEEL U-CHANNEL | 1 | AS SHOWN |
| ⑨ | | R3-2 | 24"x24" | 2 | STEEL U-CHANNEL | 1 | AS SHOWN |
| ⑬ | NO TURN ON RED | R10-11A | 24"x30" | 1 | STEEL U-CHANNEL | 1 | AS SHOWN |
| ⑭ | DO NOT BLOCK | R10-7 | 24"x30" | 1 | STEEL U-CHANNEL | 1 | AS SHOWN |
| ⑮ | YIELD | R1-2 | EXISTING | 1 | STEEL U-CHANNEL | 1 | AS SHOWN |

20 0 10 20 40
1 inch = 20 ft.

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| Rev. | Date | Revision |
|---|---|---|
| | | |

| Issued For | Date | By |
|---|---|---|
| PS&E | 7/2/12 | RCN |
| NHDOT REVIEW | 5/7/12 | RCN |
| CITY/NHDOR REVIEW | 4/6/12 | RCN |

Design: RCN | Draft: DB | Date: APRIL 2012
Checked: TLG | Scale: 1"=20' | Job No.: 1672.01
File Name: 1672_MARKET_STRIPING.dwg

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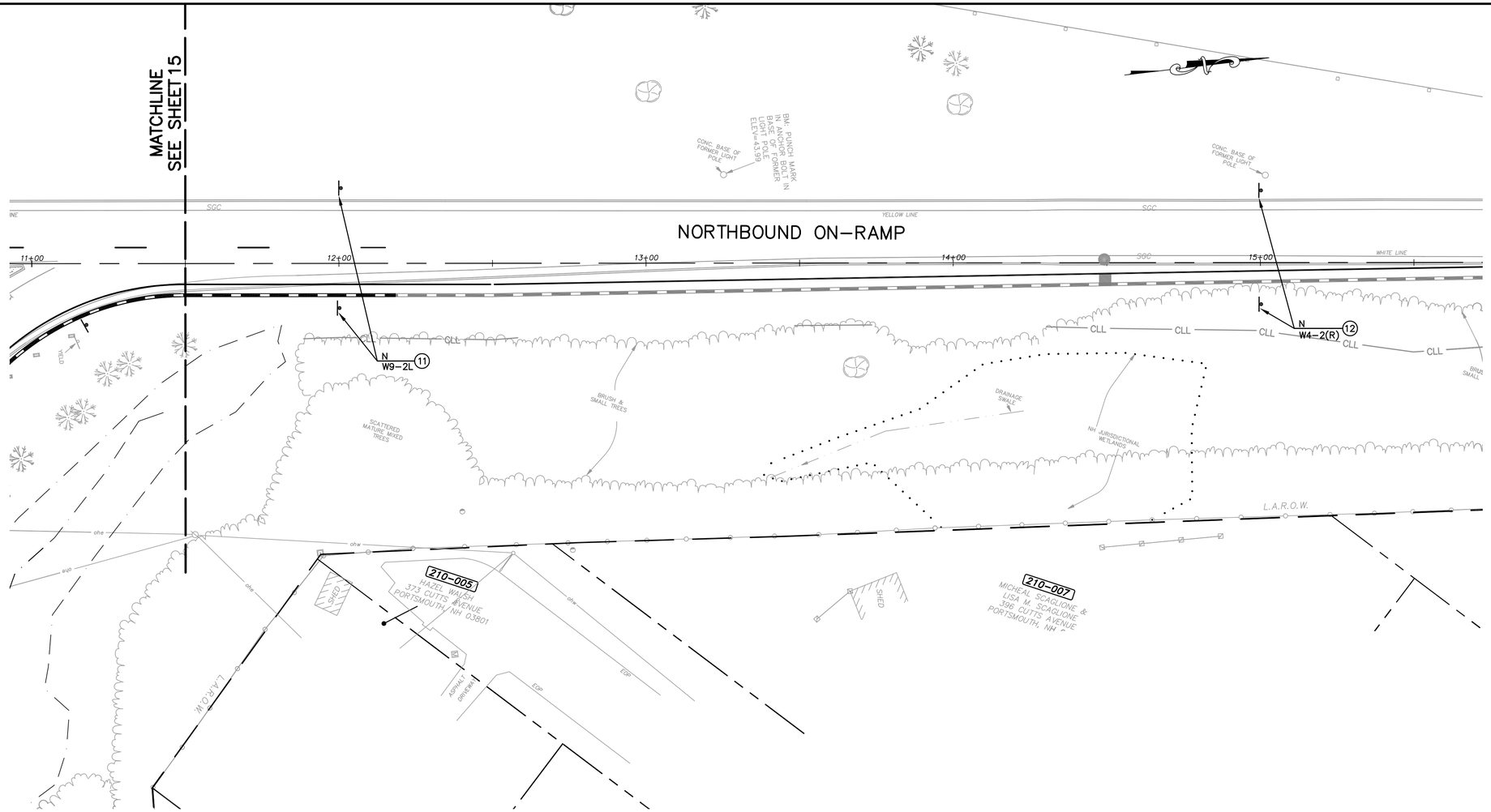
Drawing Name: **Pavement Marking & Signing Plan – 3**

Project: MARKET STREET ROADWAY IMPROVEMENTS
PORTSMOUTH, NH

Client: **City of Portsmouth**
1 Junkins Avenue, Portsmouth, NH 03802

Drawing No. **15**

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## CURBING LEGEND

GRANITE SLOPE CURB 6" HIGH, ITEMS 609.216 & 609.236
VERTICAL GRANITE CURB, ITEMS 609.01 & 609.02

## ABBREVIATIONS

| | |
|---|---|
| REL | RELOCATE |
| REM | REMOVE |
| RET | RETAIN |
| N | NEW |

## NEW SIGN SCHEDULE

| Ⓧ | | DESIGNATION | SIZE | NO. REQ'D | POST TYPE | NO. POSTS | LOCATION(S) |
|---|---|---|---|---|---|---|---|
| (11) | LANDING WEDGE LIGHT | W9-2L | 48"x48" | 2 | 4" ALUM., POSTS-BREAKAWAY | 2 | AS SHOWN |
| (12) | | W4-2(R) | 48"x48" | 2 | 4" ALUM., POSTS-BREAKAWAY | 2 | AS SHOWN |

NOTES:

1. ALL SYMBOLS, WORDS, STOP BARS, CROSSWALKS, LANE LINES AND OTHER MARKINGS NOTED WITH (T) SHALL BE THERMO PLASTIC.
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20 0 10 20 40
1 inch = 20 ft.

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| Issued For | Date | By |
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| PS&E | 7/2/12 | RCN |
| NHDOT REVIEW | 5/7/12 | RCN |
| CITY/NHDOR REVIEW | 4/6/12 | RCN |

| | | |
|---|---|---|
| Design: RCN | Draft: DB | Date: APRIL 2012 |
| Checked: TLG | Scale: 1"=20' | Job No.: 1672.01 |

File Name: 1672_MARKET_STRIPING.dwg

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Drawing Name: **Pavement Marking & Signing Plan – 4**

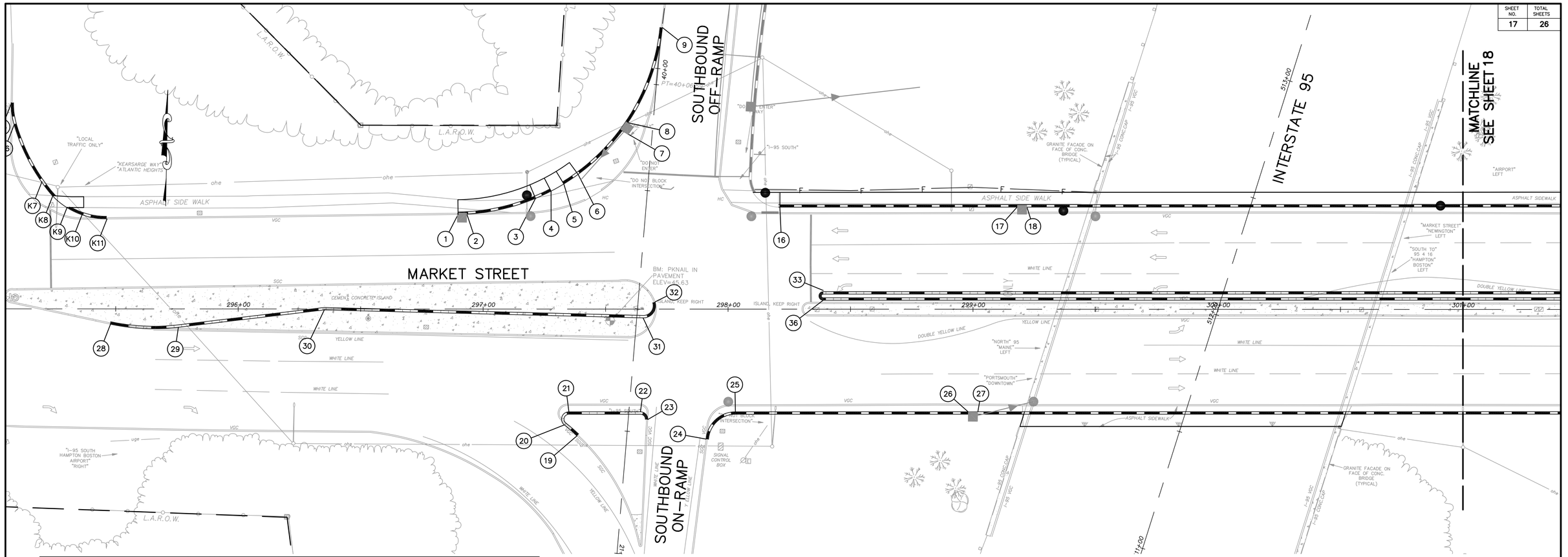
Project: MARKET STREET ROADWAY IMPROVEMENTS
PORTSMOUTH, NH

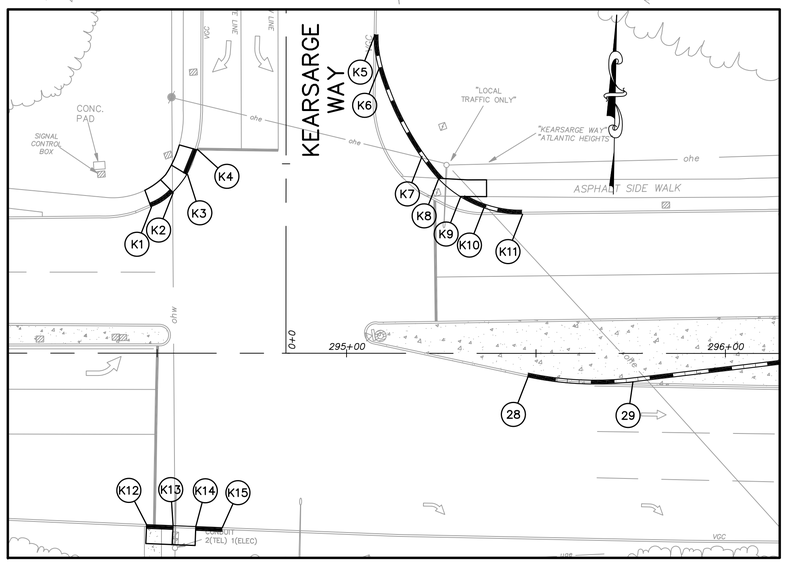
Client: **City of Portsmouth**
1 Junkins Avenue, Portsmouth, NH 03802

Drawing No. **16**

C:\Data\Projects\Gorrill-Palmer\1672 Market St\CADD\dwg\1672MARKET_25PRINTING.dwg

| SHEET NO. | TOTAL SHEETS |
|---|---|
| 17 | 26 |




## CURB LAYOUT TABLE

| PT | START STA | PT | END STA | LEN | RAD | TYPE |
|---|---|---|---|---|---|---|
| K1 | 294+48.51, 38.63' LT | K2 | 294+54.22, 42.38' LT | 7.00 | 15.00 | TC |
| K3 | 294+57.82, 47.21' LT | K4 | 294+60.45, 53.68' LT | 7.00 | – | TC |
| K5 | 295+07.26, 84.12' LT | K6 | 295+08.43, 75.36' LT | 8.87 | 30.00 | B |
| K6 | 295+08.43, 75.36' LT | K7 | 295+19.79, 51.70' LT | 25.43 | 80.00 | B |
| K7 | 295+19.79, 51.70' LT | K8 | 295+24.32, 46.16' LT | 7.00 | 80.00 | TC |
| K9 | 295+29.94, 41.41' LT | K10 | 295+36.25, 38.39' LT | 7.00 | 30.00 | TC |
| K10 | 295+36.25, 38.39' LT | K11 | 295+46.27, 36.77' LT | 10.19 | 30.00 | B |
| K12 | 294+47.23, 45.24' RT | K13 | 294+50.22, 45.51' RT | 7.00 | – | TC |
| K14 | 294+60.22, 45.75' RT | K15 | 294+67.21, 46.02' RT | 7.00 | – | TC |

## CURB LAYOUT TABLE

| PT | START STA | PT | END STA | LEN | RAD | TYPE |
|---|---|---|---|---|---|---|
| 1 | 296+89.77, 38.60' LT | 2 | 296+93.35, 38.72' LT | 4.00 | 85.00 | HS |
| 2 | 296+93.35, 38.72' LT | 3 | 297+21.37, 45.16' LT | 28.89 | 85.00 | B |
| 3 | 297+21.37, 45.16' LT | 4 | 297+27.71, 48.12' LT | 7.00 | 85.00 | TC |
| 5 | 297+32.93, 51.07' LT | 6 | 297+38.75, 54.96' LT | 7.00 | 85.00 | TC |
| 6 | 297+38.75, 54.96' LT | 7 | 297+56.75, 72.79' LT | 25.43 | 85.00 | B |
| 7 | 297+56.75, 72.79' LT | 8 | 297+59.06, 76.06' LT | 4.00 | 85.00 | HS |
| 8 | 297+59.06, 76.06' LT | 9 | 297+73.15, 114.88' LT | 41.72 | 85.00 | B |
| 65 | 38+03.78, 39.76' LT | 10 | 298+10.41, 84.52' LT | 195.22 | 700.00 | B |
| 10 | 298+10.41, 84.52' LT | 11 | 298+10.09, 80.53' LT | 4.00 | 700.00 | HS |
| 11 | 298+10.09, 80.53' LT | 12 | 298+08.66, 55.19' LT | 25.38 | 700.00 | B |
| 12 | 298+08.66, 55.19' LT | 13 | 298+08.61, 54.09' LT | 1.10 | 700.00 | TC |
| 13 | 298+08.61, 54.09' LT | 14 | 298+10.22 47.64' LT | 6.73 | 12.00 | TC |
| 15 | 298+14.44, 43.35' LT | 16 | 298+21.13, 41.64' LT | 7.00 | 12.00 | TC |
| 16 | 298+21.13, 41.64' LT | 17 | 299+18.00, 41.69' LT | 96.87 | – | B |
| 17 | 299+18.00, 41.69' LT | 18 | 299+22.00, 41.70' LT | 4.00 | – | HS |
| 18 | 299+22.00, 41.70' LT | 37 | 301+85.00, 41.84' LT | 263.00 | – | B |
| 19 | 297+38.36, 51.70' RT | 20 | 297+33.17, 47.26' RT | 6.83 | 84.92 | A |
| 20 | 297+33.17, 47.26' RT | 21 | 297+35.03, 41.90' RT | 7.42 | 3.00 | A |
| 21 | 297+35.03, 41.90' RT | 22 | 297+64.25, 41.89' RT | 29.22 | – | A |
| 22 | 297+64.25, 41.89' RT | 23 | 297+67.25, 45.04' RT | 4.87 | 3.00 | A |
| 24 | 297+91.04, 53.01' RT | 25 | 298+03.02, 41.87' RT | 17.99 | 12.00 | B |
| 25 | 298+03.02, 41.87' RT | 26 | 298+98.00, 41.82' RT | 94.98 | – | B |
| 26 | 298+98.00, 41.82' RT | 27 | 299+02.00, 41.81' RT | 4.00 | – | HS |
| 27 | 299+02.00, 41.81' RT | 49 | 301+64.00, 41.68' RT | 262.00 | – | B |
| 28 | 295+47.71, 6.20' RT | 29 | 295+75.58, 7.48' RT | 28.03 | 85.00 | A |
| 29 | 295+75.58, 7.48' RT | 30 | 296+35.17, 0.38' RT | 60.01 | – | A |
| 30 | 296+35.17, 0.38' RT | 31 | 297+65.30, 3.57' RT | 130.17 | – | A |
| 31 | 297+65.30, 3.57' RT | 32 | 297+70.18, 2.95' LT | 9.53 | 5.00 | A |
| 33 | 298+38.84, 7.15' LT | 34 | 301+58.83, 7.32' LT | 320.00 | – | A |
| 34 | 301+58.83, 7.32' LT | 35 | 301+58.84, 3.82' LT | 6.28 | 2.00 | A |
| 35 | 301+58.84, 3.82' LT | 36 | 298+38.84, 3.65' LT | 320.00 | – | A |
| 36 | 298+38.84, 3.65' LT | 33 | 298+38.84, 7.65' LT | 6.28 | 2.00 | A |

## CURBING LEGEND

| | |
|---|---|
| A | GRANITE SLOPE CURB 6" HIGH, ITEMS 609.216 & 609.236 |
| B | VERTICAL GRANITE CURB, ITEMS 609.01 & 609.02 |

## CURBING ABBREVIATIONS

| | | |
|---|---|---|
| TYPE A | – | GRANITE SLOPE CURB |
| TYPE B | – | VERTICAL GRANITE CURB |
| HS | – | HEAD STONE (VERTICAL CURB SECTIONS BEHIND CATCH BASINS) |
| TC | – | TIPDOWN CURB (CURB SECTIONS TAPERING TO ZERO HEIGHT AT PEDESTRIAN RAMPS) |

20 0 10 20 40
1 inch = 20 ft.

| Rev. | Date | Revision |
|---|---|---|
| | | |

| Issued For | Date | By |
|---|---|---|
| PS&E | 7/2/12 | RCN |
| NHDOT REVIEW | 5/7/12 | RCN |
| CITY/NHDOT REVIEW | 4/6/12 | RCN |

Design: RCN | Draft: DB | Date: APRIL 2012
Checked: TLG | Scale: 1"=20' | Job No.: 1672.01
File Name: 1672_MARKET_CURBING.dwg

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FAX: 207-657-6912
E-Mail: mailbox@gorrillpalmer.com

Drawing Name: **Curbing Layout Plan – 1**

Project: MARKET STREET ROADWAY IMPROVEMENTS
PORTSMOUTH, NH

Client: **City of Portsmouth**
1 Junkins Avenue, Portsmouth, NH 03802

Drawing No. 17

C:\Data\Projects\Gorrill-Palmer\1672 Market St\CADD\dwg\1672MARKET_CURBING.dwg

| SHEET NO. | TOTAL SHEETS |
|---|---|
| 18 | 26 |

210-002
BETHEL ASSEMBLY OF GOD
200 CHASE DRIVE
PORTSMOUTH, NH 03801

MATCHLINE SEE SHEET 17

NORTHBOUND ON-RAMP

NORTHBOUND OFF-RAMP

MARKET STREET

SEE INSET

"AIRPORT" LEFT

"MARKET STREET" "NEWINGTON" LEFT

"SOUTH TO" 95 & 16 "HAMPTON" "BOSTON" LEFT

"I-95 NORTH" LEFT

"I-95 NORTH" "MAINE"

"DO NOT BLOCK INTERSECTION"

TRAFFIC SIGNALIZATION CONTROL BOX ON CONC. PAD

"1 WAY – DO NOT ENTER"

"NO LEFT TURN"

"WELCOME TO PORTSMOUTH"

SPEED LIMIT 35 "SEACOAST REPERTORY THEATER"

"STRAWBERY BANKE" "WINTER STORM PARKING BAN" "WARNING EXCESSIVE NOISE ORDINANCE"

"USS ALBACORE" RIGHT "PORTSMOUTH HARBOR TRAIL" RIGHT

ISLAND, KEEP RIGHT

2 YELLOW LINES

ONLY

MATURE MIXED TREES

BRUSH & SMALL TREES

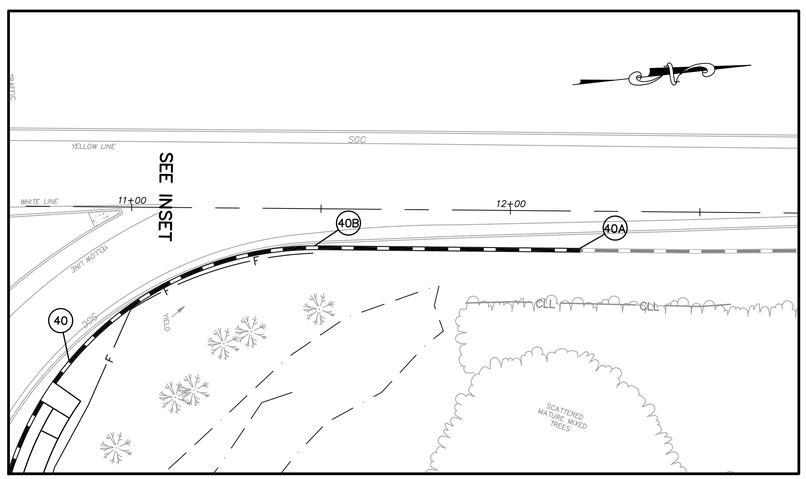
BRUSH

L.A.R.O.W.

ASPHALT SIDEWALK

DRIP LINE (TYPICAL)

SCATTERED MATURE MIXED TREES




## CURB LAYOUT TABLE

| PT | START STA | PT | END STA | LEN | RAD | TYPE |
|---|---|---|---|---|---|---|
| 18 | 299+22.00, 41.70' LT | 37 | 301+85.00, 41.84' LT | 263.00 | – | B |
| 37 | 301+85.00, 41.84' LT | 38 | 301+89.00, 41.84' LT | 4.00 | – | HS |
| 38 | 301+89.00, 41.84' LT | 39 | 302+04.21, 41.85' LT | 15.21 | – | B |
| | | | | | | |
| 70 | 11+49.44, 9.79' RT | 40 | 302+72.44, 78.02' LT | 74.88 | 85.00 | B |
| 40 | 302+72.44, 78.02' LT | 41 | 302+77.38, 73.07' LT | 7.00 | 85.00 | TC |
| | | | | | | |
| 42 | 302+81.93, 69.16' LT | 43 | 302+87.57, 65.02' LT | 7.00 | 85.00 | TC |
| 43 | 302+87.57, 65.02' LT | 44 | 303+08.78, 54.67' LT | 23.67 | 85.00 | B |
| 44 | 303+08.78, 54.67' LT | 45 | 303+12.62, 53.54' LT | 4.00 | 85.00 | HS |
| 45 | 303+12.62, 53.54' LT | 46 | 303+32.10, 50.59' LT | 19.78 | 85.00 | B |
| 46 | 303+32.10, 50.59' LT | 47 | 306+69.74, 38.95' LT | 337.84 | – | B |
| 47 | 306+69.74, 38.95' LT | 48 | 306+73.74, 38.81' LT | 4.00 | – | HS |
| | | | | | | |
| 27 | 299+02.00, 41.81' RT | 49 | 301+64.00, 41.68' RT | 262.00 | – | B |
| 49 | 301+64.00, 41.68' RT | 50 | 301+68.00, 41.67' RT | 4.00 | – | HS |
| 50 | 301+68.00, 41.67' RT | 51 | 301+80.79, 41.67' RT | 12.79 | – | B |
| 51 | 301+80.79, 41.67' RT | 52 | 301+92.74, 54.87' RT | 20.07 | 12.00 | B |
| | | | | | | |
| 53 | 302+42.56, 2.70' LT | 53A | 302+54.69, 2.75' LT | 12.13 | – | A |
| 53A | 302+54.69, 2.75' LT | 53B | 302+54.74, 2.83' RT | 8.76 | 2.50 | A |
| 53B | 302+54.74, 2.83' RT | 54 | 302+42.57, 2.88' RT | 12.17 | – | A |
| 54 | 302+42.57, 2.88' RT | 53 | 302+42.56, 2.70' LT | 8.76 | 2.50 | A |
| | | | | | | |
| 54A | 302+65.28, 2.75' LT | 54B | 302+65.28, 2.89' RT | 8.85 | 2.50 | A |
| | | | | | | |
| 56 | 302+62.49, 48.57' LT | 57 | 302+68.67, 44.81' LT | 7.24 | 50.00 | A |
| 57 | 302+68.67, 44.81' LT | 58 | 302+67.30, 39.14' LT | 7.99 | 3.00 | A |
| 58 | 302+67.30, 39.14' LT | 58A | 302+62.51, 39.13' LT | 4.79 | – | A |
| 58A | 302+62.51, 39.13' LT | 56 | 302+62.49, 48.57' LT | 9.44 | – | A |
| | | | | | | |
| 55 | 302+47.66, 44.18' LT | 55A | 302+57.50, 47.06' LT | 10.25 | – | B |
| 55A | 302+57.50, 47.06' LT | 59 | 302+57.51, 39.13' LT | 7.93 | – | B |
| 59 | 302+57.51, 39.13' LT | 59A | 302+49.26, 39.11' LT | 8.25 | – | B |
| 59A | 302+49.26, 39.11' LT | 60 | 302+47.27, 41.39' LT | 3.42 | 2.00 | B |
| 60 | 302+47.27, 41.39' LT | 55 | 302+47.66, 44.18' LT | 2.81 | – | B |
| | | | | | | |
| 61 | 302+49.37, 56.55' LT | 62 | 302+52.90, 57.54' LT | 4.63 | 2.00 | B |
| 62 | 302+52.90, 57.54' LT | 63 | 302+57.81, 52.36' LT | 7.14 | 50.00 | B |
| 63 | 302+57.81, 52.36' LT | 64 | 302+48.41, 49.61' LT | 9.80 | – | B |
| 64 | 302+48.41, 49.61' LT | 61 | 302+49.37, 56.55' LT | 7.01 | – | B |
| | | | | | | |
| 65A | 302+38.82, 48.05' RT | 65B | 302+42.55, 45.56' RT | 4.48 | – | B |
| 65B | 302+42.55, 45.56' RT | 65 | 302+50.52, 43.04' RT | 8.48 | 15.00 | B |
| 65 | 302+50.52, 43.04' RT | 66 | 302+57.52, 47.73' RT | 7.00 | – | TC |
| | | | | | | |
| 67 | 302+62.52, 42.50' RT | 68 | 302+69.52, 42.19' RT | 7.00 | – | TC |
| 68 | 302+69.52, 42.19' RT | 68A | 303+48.15, 38.70' RT | 7.00 | 78.70 | B |
| | | | | | | |
| 40 | 10+83.85, 40.63' RT | 40A | 11+48.41, 9.79' RT | 73.85 | 85.00 | A |
| 40A | 11+48.41, 9.79' RT | 40B | 12+18.41, 9.85' RT | 70.00 | – | A |

## CURBING LEGEND

A — GRANITE SLOPE CURB 6" HIGH, ITEMS 609.216 & 609.236

B — VERTICAL GRANITE CURB, ITEMS 609.01 & 609.02

## CURBING ABBREVIATIONS

| | | |
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| HS | – | HEAD STONE (VERTICAL CURB SECTIONS BEHIND CATCH BASINS) |
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20 0 10 20 40
1 inch = 20 ft.

| Rev. | Date | Revision |
|---|---|---|
| | | |

| Issued For | Date | By |
|---|---|---|
| PS&E | 7/2/12 | RCN |
| NHDOT REVIEW | 5/7/12 | RCN |
| CITY/NHDOT REVIEW | 4/6/12 | RCN |

| | | |
|---|---|---|
| Design: RCN | Draft: DB | Date: APRIL 2012 |
| Checked: TLG | Scale: 1"=20' | Job No.: 1672.01 |

File Name: 1672_MARKET_CURBING.dwg

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E–Mail: mailbox@gorrillpalmer.com

Drawing Name: **Curbing Layout Plan – 2**

Project: MARKET STREET ROADWAY IMPROVEMENTS
PORTSMOUTH, NH

Client: **City of Portsmouth**
1 Junkins Avenue, Portsmouth, NH 03802

Drawing No. 18

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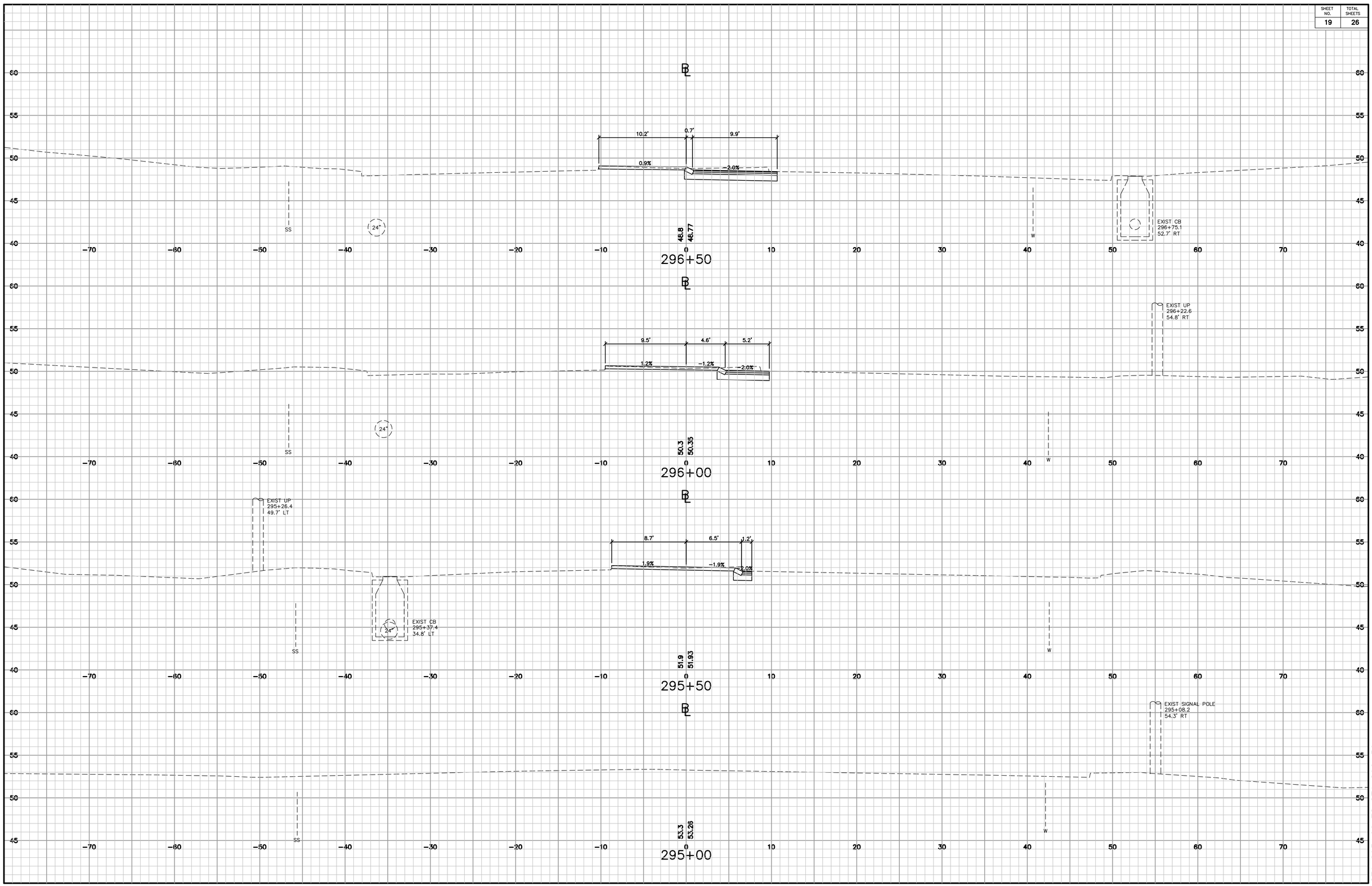


STA 295+00 TO STA 296+50

PORTSMOUTH MARKET STREET

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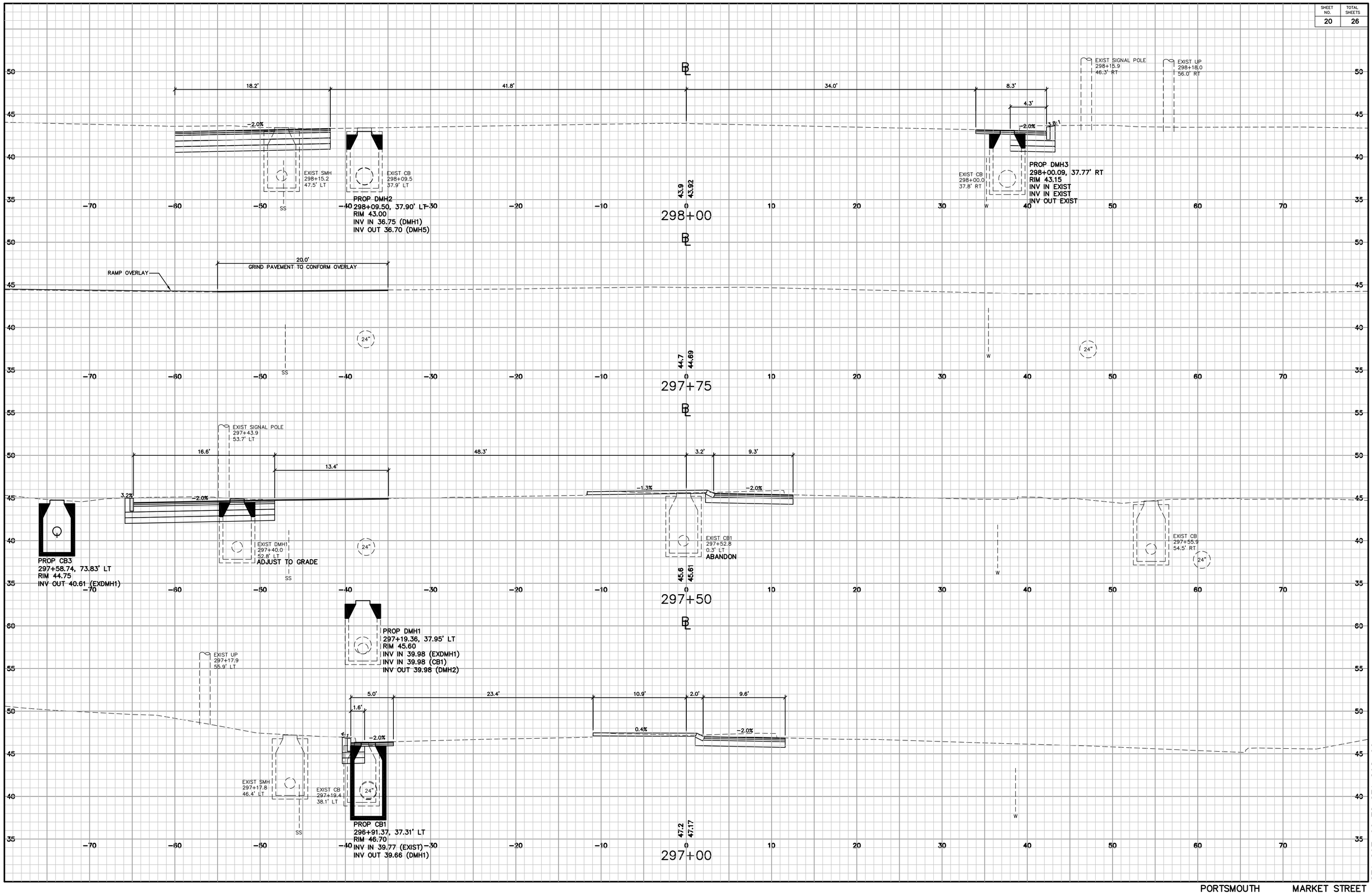


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PORTSMOUTH MARKET STREET

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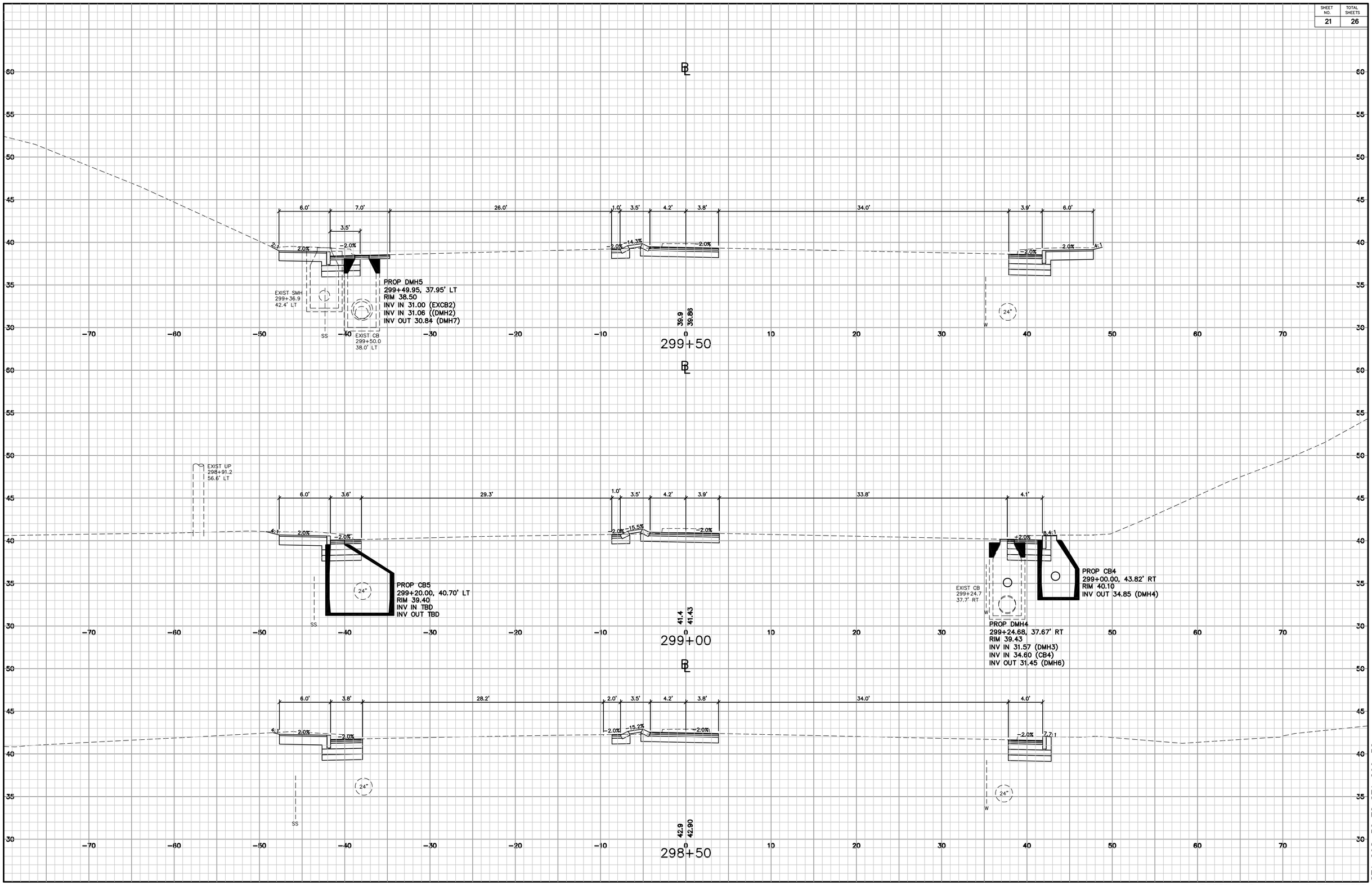


PORTSMOUTH MARKET STREET

STA 298+50 TO STA 299+50

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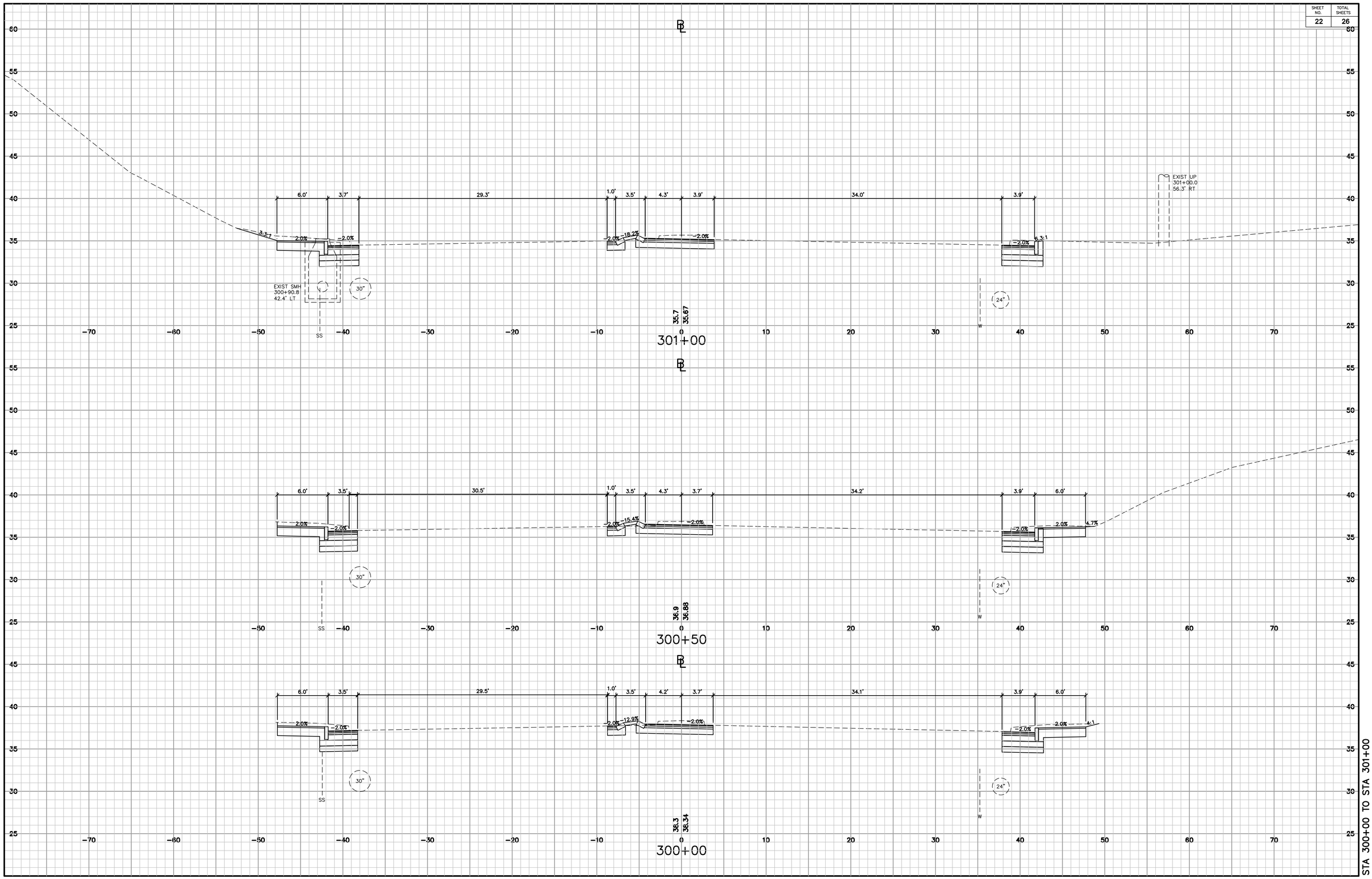


STA 300+00 TO STA 301+00

PORTSMOUTH MARKET STREET

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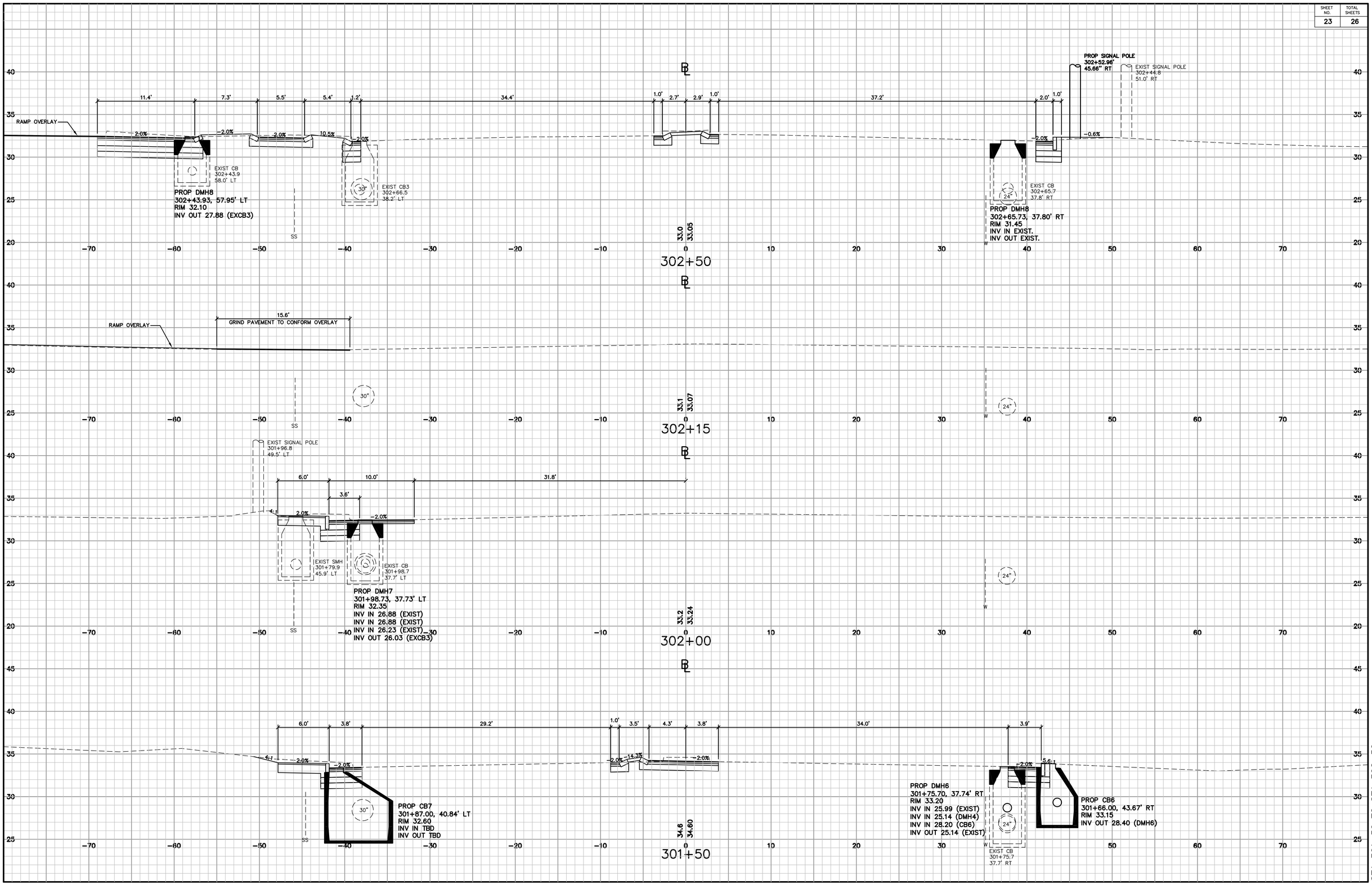


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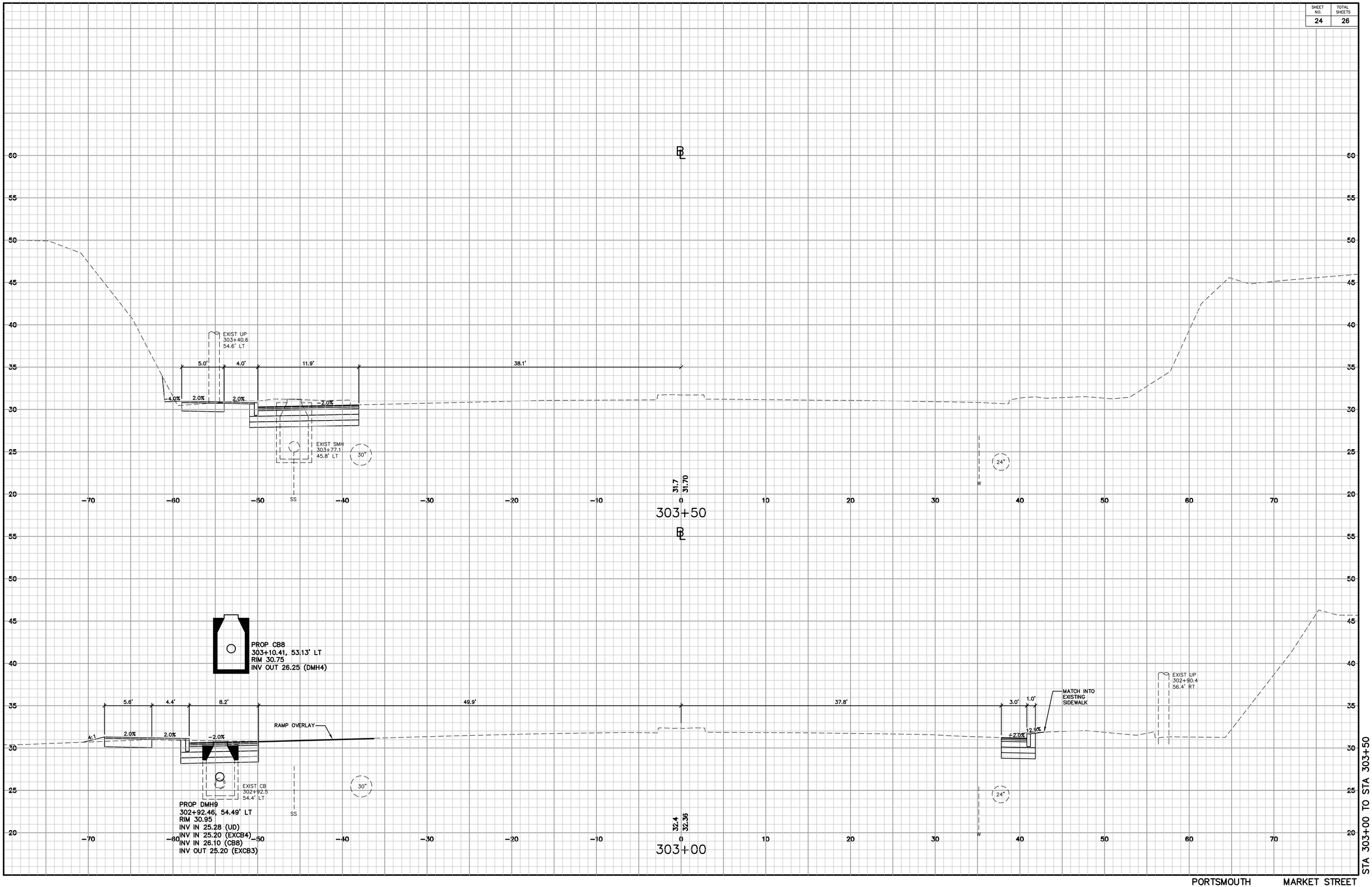
STA 301+50 TO STA 302+50

PORTSMOUTH MARKET STREET




STA 303+00 TO STA 303+50

PORTSMOUTH MARKET STREET

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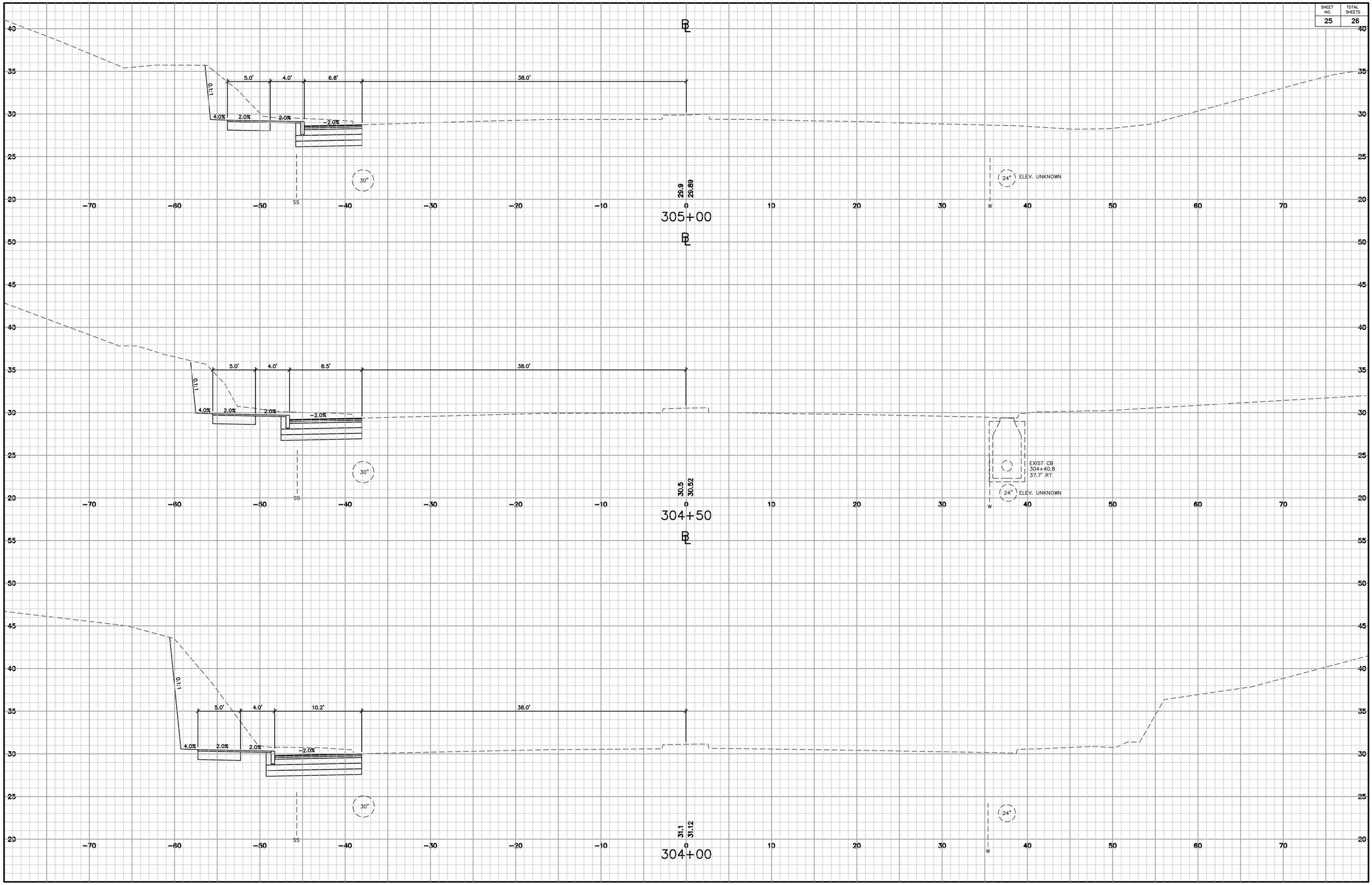


STA 304+00 TO STA 305+00

PORTSMOUTH MARKET STREET

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| SHEET NO. | TOTAL SHEETS |
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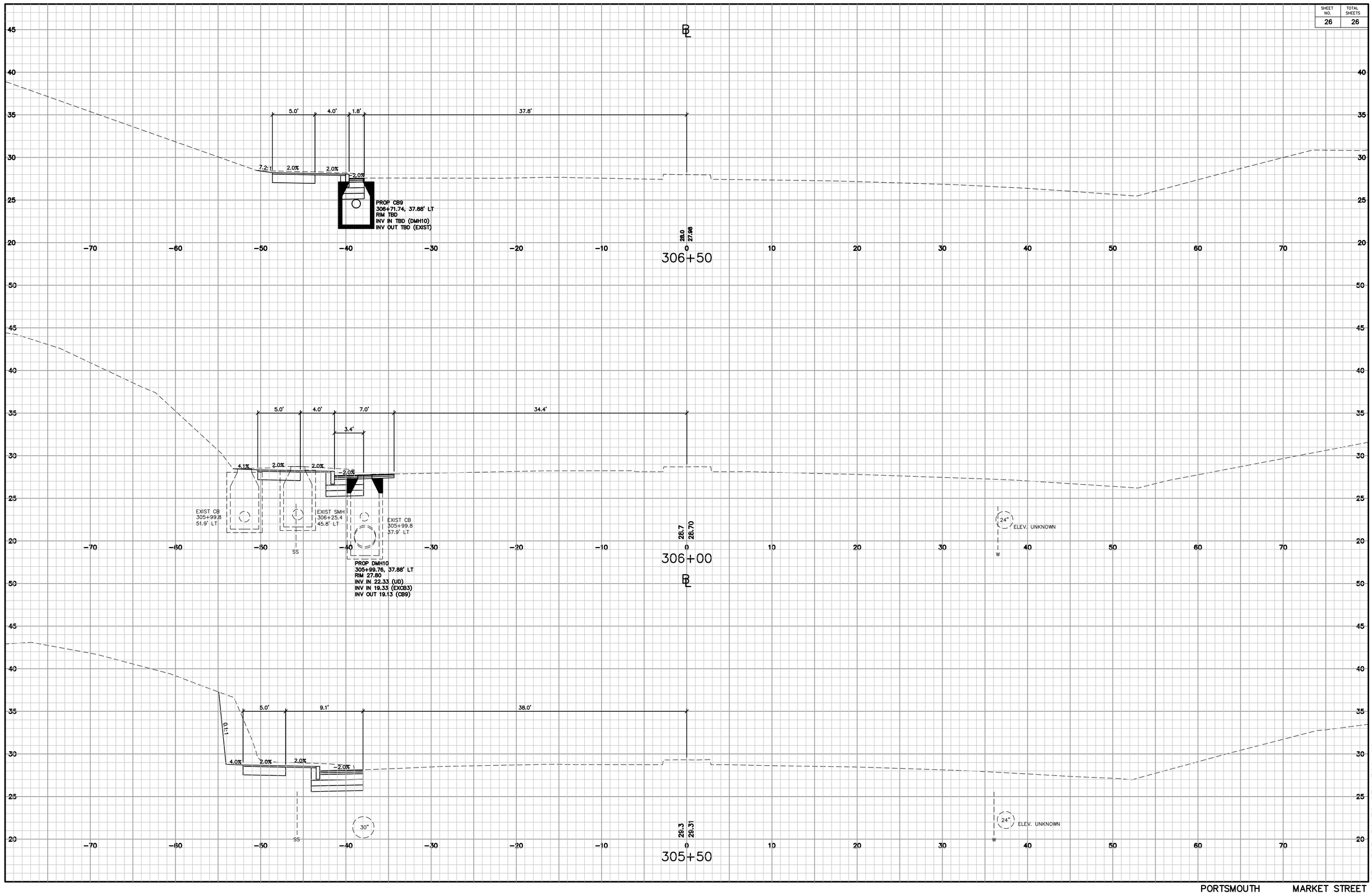


C:\Data\Projects\Gorrill-Palmer\1672 Market St\CADD\dwg\[illegible]

PORTSMOUTH MARKET STREET

STA 305+50 TO STA 306+00