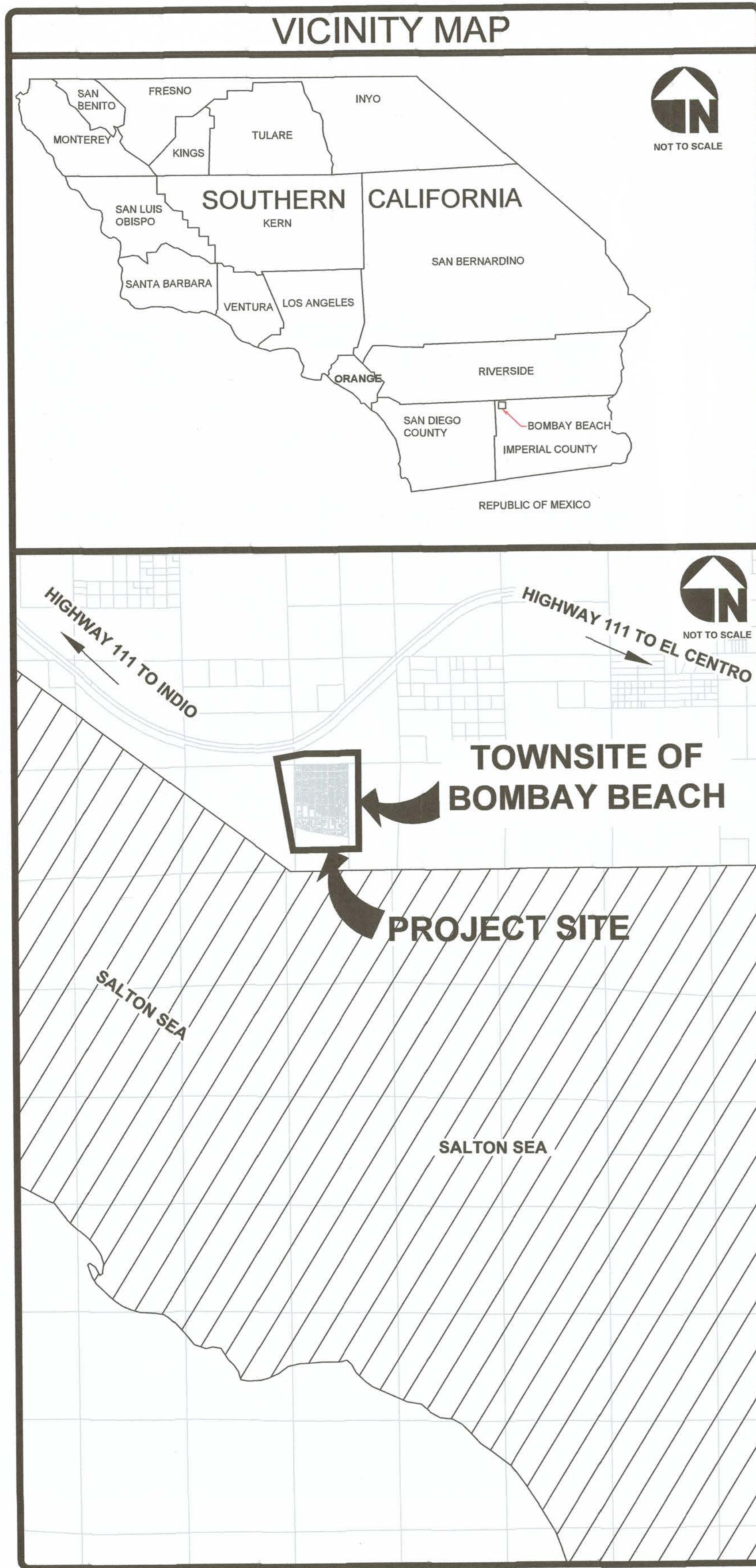


# TOVNSITE ROADWAY IMPROVEMENT PROJECT - COUNTY PROJECT NO. 6810



### PROJECT DESCRIPTION

THE COUNTY OF IMPERIAL INTENDS TO IMPROVE THE BOMBAY BEACH ROAD SYSTEM CONSISTING OF 5.88 MILES OF ASPHALT CEMENT PAVED ROADWAYS. IT IS PROPOSED THE ROADWAY IMPROVEMENTS CONSIST OF AN A.C. OVERLAY FOLLOWED BY AN ASPHALT RUBBER AGGREGATE MEMBRANE (ARAM) FOLLOWED BY THE INSTALLATION OF A TYPE 2 SLURRY SEALCOAT PLACED OVER THE OPEN GRADED ARAM SURFACE. THE ARAM WILL IMPROVE REFLECTIVE CRACKING FROM THE EXISTING UNDERLYING STREET SECTION. THE EXISTING PAVEMENT SURFACES OF SEVERAL STREET SECTIONS ARE IN EXTREMELY POOR CONDITION. THESE STREET SECTIONS INCLUDE 1ST STREET, 2ND STREET AND 3RD STREET BETWEEN AVENUE 'A' AND AISLE OF PALMS. IT WILL BE NECESSARY TO APPLY A 1 1/4 INCH A.C. SKIN PATCH OVER THESE ALLIGATOR CRACKED AND POTHOLED STREET SECTIONS PRIOR TO INSTALLING THE A.C. OVERLAY ARAM TYPE 2 SLURRY. IN ADDITION, FIFTH STREET BETWEEN AVENUE 'F' AND 'G' IS TO BE TOTALLY RECONSTRUCTED. THE EXISTING A.C. PAVEMENT LOCATED IN THE MID PORTION OF FIFTH STREET IS TO BE REMOVED AND DISPOSED OF. THE SURFACE 3 INCHES OF NATIVE MATERIAL IS TO BE REMOVED. THE STREET IS TO BE GRADED LEVEL SIX (6) INCHES OF CLASS 2 BASE IS TO BE PLACED OVER THE GRADED NATIVE SURFACE AND COMPACTED TO 95 PERCENT OF MAXIMUM DENSITY PER ASTM D-1557. A NEW 3 INCH A.C. PAVEMENT OVERLAY FINISH SURFACE IS TO BE INSTALLED OVER THE COMPACTED CLASS 2 BASE. SEE SECTION F-F ON PLAN SHEET 3 ILLUSTRATING THE TOTAL RECONSTRUCTION OF FIFTH STREET BETWEEN AVENUE 'F' AND 'G'.

ISOLATED PAVEMENT FAILURE AREAS ARE LOCATED AT AVENUES B, C, G AND H NORTH OF FIFTH STREET. THE PAVEMENT FAILURE AREAS ARE ILLUSTRATED ON PLAN SHEET 2. THE PAVEMENT FAILURE AREAS SHALL BE REHABILITATED BY REMOVING AND REPLACING THE A.C. PAVEMENT PER SECTION E-E ON PLAN SHEET 3. THE PAVEMENT FAILURE AREAS ARE TO BE REHABILITATED PRIOR TO THE A.C. OVERLAY ARAM TYPE 2 SLURRY INSTALLATION ALONG AVENUES B, C, G AND H.

THERE ARE EXISTING STORMWATER SWALES LOCATED ALONG 2ND, 3RD AND 4TH STREETS. THE STORMWATER SWALES CONTINUE ACROSS THE A.C. PAVED CROSS STREET INTERSECTIONS ALONG 2ND, 3RD AND 4TH STREETS. IT WILL BE NECESSARY TO REPLACE THE SWALES ALONG THE SAME EXISTING FLOWLINE GRADES. THE EXISTING A.C. PAVEMENT OCCUPYING THE SWALES AT THESE CROSS STREET INTERSECTIONS IS TO BE REMOVED AND DISPOSED OF AND NEW A.C. PAVED SWALES ARE TO BE INSTALLED PER DETAIL A ON PLAN SHEET 3. SECTION C-C ON PLAN SHEET 3 AND THE SWALE DATA CHART ON PLAN SHEET 5. THERE ARE ALSO A.C. PAVED STORMWATER SWALES AT THE WEST INTERSECTIONS OF 3RD STREET AND AISLE OF PALMS AND 4TH STREET AND AISLE OF PALMS WHICH ARE SIMILARLY TO BE REMOVED AND REPLACED. SEE DETAILS B AND C ON PLAN SHEET 3 AND SECTION D-D ON PLAN SHEET 3 REGARDING THE REMOVAL AND REPLACEMENT OF THESE SWALES.

WATER VALVE RISERS AND COVERS AND MANHOLE RINGS AND COVERS SHALL BE FIELD LOCATED WITHIN THE STREET AREAS TO BE IMPROVED PRIOR TO THE COMMENCEMENT OF PAVEMENT IMPROVEMENT ACTIVITIES. WATER VALVE RISERS AND COVERS AND MANHOLE RINGS AND COVERS WITHIN THE PAVED STREET AREAS ARE ILLUSTRATED ON PLAN SHEET 2. IT WILL BE NECESSARY TO "LIFT-OFF" THE WATER VALVE RISERS AND COVERS AND MANHOLE RINGS AND COVERS WITH STAKES AND LATH WITH DISTANCES FROM THE STAKES TO THE UTILITY COVERS PRIOR TO THE COMMENCEMENT OF STREET REHABILITATION IMPROVEMENTS. A MINIMUM OF 3 SEPARATE DISTANCES SHALL BE ESTABLISHED FOR EACH UTILITY COVER. IT SHALL BE NECESSARY TO RAISE THE UTILITY COVERS TO THE FINISH STREET SURFACE AFTER THE A.C. OVERLAY ARAM TYPE 2 SLURRY ROADWAY IMPROVEMENTS ARE COMPLETED.

STRIPING FOR THIS PROJECT CONSISTS OF THE INSTALLATION OF STOP BARS AND STOP LEGENDS AT INTERSECTIONS AS ILLUSTRATED ON PLAN SHEET 2.

TRAFFIC CONTROL SHALL BE MAINTAINED THROUGHOUT THE CONSTRUCTION PERIOD. INDIVIDUAL STREET SECTIONS WILL BE ALLOWED TO BE CLOSED TO TRAFFIC DURING THE COMPLETION OF A.C. OVERLAYS, ARAM APPLICATIONS AND SLURRY SEALCOAT APPLICATIONS WITH THE STIPULATION THAT THE CLOSED STREET SECTION IS TO BE COMPLETELY FINISHED WITH BOTH 1/4 WIDTHS OF THE STREET COMPLETED BEFORE IMPROVEMENTS TO THE NEXT STREET SECTION ARE ALLOWED TO COMMENCE. THIS CONDITION SHALL BE REQUIRED TO MAXIMIZE TRAFFIC ACCESS TO RESIDENCES, BUSINESSES AND OTHER ESTABLISHMENTS DURING ROADWAY IMPROVEMENTS. THE TOTAL REHABILITATION SECTION OF FIFTH STREET FROM AVENUE 'F' TO AVENUE 'G' AND THE PAVEMENT FAILURE AREA STREET SECTION WILL BE REQUIRED TO BE CLOSED TO TRAFFIC DURING THE PERIOD OF TIME THE STREET REHABILITATION WORK IS BEING ACCOMPLISHED. LIGHTED BARRICADES SHALL BE PLACED 4 FEET ON CENTER AT EACH END OF THE STREET SECTION OR PORTION OF STREET SECTION BEING REHABILITATED AND CLOSED TO TRAFFIC. ORANGE FLAGS SHALL BE PLACED BETWEEN THE LIGHTED BARRICADES. ROAD CLOSED SIGNS SHALL BE PLACED ALONG THE LINE OF BARRICADES ON EACH SIDE OF THE REHABILITATION SECTION AND AT EACH STREET INTERSECTION LEADING TO THE ROADWAY SECTION UNDER REHABILITATION.

THERE ARE EARTH LEVIES CONSTRUCTED ON THE EAST SIDE OF AISLE OF PALMS AND SOUTH SIDE OF FIFTH STREET. THE EARTH LEVIES HAVE BEEN CONSTRUCTED TO PREVENT FLOODING WITHIN THE BOMBAY BEACH TOWNSITE IN THE EVENT OF HIGH WATER LEVELS AT THE SALTON SEA. PORTIONS OF THE EARTH LEVY SIDE SLOPES HAVE WASHED AND SLOUGHED ONTO THE EXISTING PAVEMENT AREAS OF AISLE OF PALMS AND FIFTH STREET. THE EARTH THAT HAS WASHED AND SLOUGHED ONTO THE EXISTING PAVEMENT AREAS IS TO BE REMOVED AND DISPOSED OF BY THE CONTRACTOR PRIOR TO THE COMMENCEMENT OF ROADWAY IMPROVEMENT WORK. THE PROJECT WORK SCOPE DOES NOT INCLUDE IMPROVEMENTS TO THE LEVY EMBANKMENTS. FOLLOWING IS THE PROJECT SCOPE OF WORK:

- THE ROADWAY IMPROVEMENTS FOR THE ROAD SECTIONS TO RECEIVE A VARIABLE DEPTH A.C. OVERLAY FOLLOWED BY AN ARAM FOLLOWED BY A SLURRY SEALCOAT INCLUDE THE FOLLOWING ITEMS:
  - ROADWAY IMPROVEMENT NOTIFICATION TO THE PUBLIC.
  - ESTABLISHMENT OF TRAFFIC CONTROL.
  - COMPLETION OF PAVEMENT FAILURE AREA WORK.
  - ROAD PAVEMENT SURFACE SWEEPING INCLUDING REMOVAL AND DISPOSAL OF ROAD RESIDUE.
  - REMOVAL OF EARTH WASHED AND SLOUGHED ONTO THE EXISTING A.C. PAVEMENT FROM EXISTING EARTH LEVIES ALONG AISLE OF PALMS AND FIFTH STREET.
  - FIELD LOCATION AND TIE-OFF OF UTILITY COVERS AND ANY SURVEY MONUMENTS IN ROAD SURFACE AREAS.
  - PLACEMENT OF TACK COAT OVER SWEEPED ROAD PAVEMENT SURFACE PRIOR TO INSTALLATION OF A.C. PAVEMENT HOT MIX.
  - REMOVAL OF EXISTING A.C. PAVEMENT AT SWALE LOCATIONS AS ILLUSTRATED ON THE PLANS. GRADING AND COMPACTING EXISTING SWALE SUBGRADE MATERIAL.
  - INSTALLATION OF VARIABLE DEPTH A.C. HOT MIX INCLUDING SWALE AREAS.
  - INSTALLATION OF ASPHALT RUBBER AGGREGATE MEMBRANE (ARAM) OVER A.C. VARIABLE DEPTH PAVEMENT SURFACE INCLUDING SWALE AREAS.
  - INSTALLATION OF TYPE 2 SLURRY SEALCOAT OVER ARAM INCLUDING SWALE AREAS.
  - RAISING OF UTILITY COVERS TO FINISH PAVEMENT GRADE.
  - INSTALLATION OF PAVEMENT STRIPING AND BLUE RAISED PAVEMENT MARKERS AT FIRE HYDRANT LOCATIONS.
- THE ROADWAY IMPROVEMENTS FOR THE ROAD SECTIONS TO RECEIVE AN A.C. SKIN PATCH FOLLOWED BY A VARIABLE DEPTH A.C. OVERLAY FOLLOWED BY A SLURRY SEALCOAT INCLUDE THE FOLLOWING ITEMS:
  - ROADWAY IMPROVEMENT NOTIFICATION TO THE PUBLIC.
  - ESTABLISHMENT OF TRAFFIC CONTROL.
  - ROAD PAVEMENT SURFACE SWEEPING INCLUDING REMOVAL AND DISPOSAL OF ROAD RESIDUE.
  - FIELD LOCATION AND TIE-OFF OF UTILITY COVERS AND ANY SURVEY MONUMENTS IN ROAD SURFACE AREAS.
  - REMOVAL OF EXISTING A.C. PAVEMENT AT SWALE LOCATIONS AS ILLUSTRATED ON THE PLANS. GRADING AND COMPACTING EXISTING SWALE SUBGRADE MATERIAL.
  - PLACEMENT OF TACK COAT OVER SWEEPED ROAD PAVEMENT SURFACE PRIOR TO INSTALLATION OF A.C. SKIN PATCH.
  - INSTALLATION OF A.C. SKIN PATCH.
  - PLACEMENT OF TACK COAT OVER A.C. SKIN PATCH PRIOR TO INSTALLATION OF NEW A.C. VARIABLE THICKNESS OVERLAY.
  - INSTALLATION OF VARIABLE DEPTH A.C. HOT MIX INCLUDING SWALE AREAS.
  - INSTALLATION OF ASPHALT RUBBER AGGREGATE MEMBRANE (ARAM) OVER A.C. VARIABLE DEPTH PAVEMENT SURFACE.
  - INSTALLATION OF TYPE 2 SLURRY SEALCOAT OVER ARAM.
  - RAISING OF UTILITY COVERS TO FINISH PAVEMENT GRADE.
  - INSTALLATION OF PAVEMENT STRIPING AND BLUE RAISED PAVEMENT MARKERS AT FIRE HYDRANT LOCATIONS.
- THE ROADWAY IMPROVEMENTS FOR THE SECTION OF FIFTH STREET BETWEEN AVENUE 'F' AND AVENUE 'G' INCLUDE THE FOLLOWING ITEMS:
  - SAWCUT THE EXISTING A.C. PAVEMENT AT AVENUE 'F' AND AVENUE 'G' PER THE PLANS.
  - REMOVE AND DISPOSE OF THE EXISTING A.C. PAVEMENT REMAINING IN THE MIDDLE OF THE ROADWAY SECTION.
  - REMOVE AND DISPOSE OF 6 INCHES OF EXISTING NATIVE MATERIAL WITHIN THE ROADWAY SECTION.
  - INSTALL 6 INCHES OF CLASS 2 BASE IN THE ROAD SECTION ALONG A STRAIGHT GRADE, 3 INCHES BELOW FINISH PAVEMENT GRADE, ALONG THE CENTERLINE OF THE FIFTH STREET PAVEMENT FROM AVENUE 'F' TO AVENUE 'G'. COMPACT THE 6 INCHES OF CLASS 2 BASE TO 95 PERCENT OF MAXIMUM DENSITY PER ASTM D-1557.
  - INSTALL 3 INCHES OF A.C. PAVEMENT ALONG THE FIFTH STREET SECTION BETWEEN AVENUE 'F' AND AVENUE 'G' MATCHING THE NEW VARIABLE DEPTH A.C. PAVEMENT GRADE AT AVENUE 'F' AND AVENUE 'G'.
  - IT WILL NOT BE NECESSARY TO INSTALL AN ARAM OR TYPE 2 SLURRY SEALCOAT OVER THE NEW A.C. PAVEMENT ALONG FIFTH STREET BETWEEN AVENUES 'F' AND 'G'.

### GENERAL NOTES

#### STREET IMPROVEMENT GENERAL NOTES

- COUNTY ENCROACHMENT PERMIT CONDITIONS AND PROVISIONS SHALL TAKE PRECEDENCE OVER THE APPROVED PLANS AND SPECIFICATIONS FOR ANY CONFLICTS.
- THE STRUCTURAL SECTIONS SHALL BE IN ACCORDANCE WITH IMPERIAL COUNTY STANDARDS (OR CALTRANS IF IN STATE ROW) AND AS APPROVED BY THE PUBLIC WORKS DIRECTOR (OR CALTRANS).
- APPROVAL OF THESE IMPROVEMENT PLANS AS SHOWN DOES NOT CONSTITUTE APPROVAL OF ANY CONSTRUCTION OUTSIDE THE PROJECT BOUNDARY.
- ALL UNDERGROUND UTILITIES WITHIN THE STREET RIGHT-OF-WAY SHALL BE CONSTRUCTED, CONNECTED AND TESTED PRIOR TO CONSTRUCTION OF BERM, CURB, CROSS-GUTTER AND PAVING.
- THE EXISTENCE AND LOCATION OF EXISTING UNDERGROUND FACILITIES SHOWN ON THESE PLANS WERE OBTAINED BY A SEARCH OF THE AVAILABLE RECORDS. TO THE BEST OF OUR KNOWLEDGE, THERE ARE NO OTHER EXISTING FACILITIES EXCEPT AS SHOWN ON THESE PLANS. HOWEVER, THE CONTRACTOR IS REQUIRED TO TAKE PRECAUTIONARY MEASURES TO PROTECT ANY EXISTING FACILITY SHOWN HEREON AND ANY OTHER WHICH IS NOT OF RECORD OR NOT SHOWN ON THESE PLANS.
- LOCATION AND ELEVATIONS OF IMPROVEMENTS TO BE MET BY WORK TO BE DONE SHALL BE CONFIRMED BY FIELD MEASUREMENTS PRIOR TO CONSTRUCTION OF NEW WORK. CONTRACTOR WILL MAKE EXPLORATORY EXCAVATIONS AND LOCATE EXISTING UNDERGROUND FACILITIES SUFFICIENTLY AHEAD OF CONSTRUCTION TO PERMIT REVISIONS TO PLANS IF REVISIONS ARE NECESSARY BECAUSE OF ACTUAL LOCATION OF EXISTING FACILITIES.
- UTILITIES COORDINATION

NO LESS THAN 3 WORKING DAYS PRIOR TO ANY EXCAVATION OR TRENCHING, EACH CONTRACTOR DOING SUCH WORK SHALL CONTACT THE FOLLOWING AGENCIES SO THAT EXISTING UNDERGROUND UTILITIES MAY BE LOCATED. THE AGENCY MAY REQUIRE AN INSPECTOR TO BE PRESENT.

- COACHELLA VALLEY WATER DISTRICT (SEWER) (760) 398-2661
- COACHELLA VALLEY WATER DISTRICT (WATER) (760) 398-2661
- IMPERIAL IRRIGATION DISTRICT (POWER) (760) 482-3409

EXISTING UNDERGROUND UTILITIES

BEFORE EXCAVATING FOR THIS CONTRACT, VERIFY LOCATION OF UNDERGROUND UTILITIES. THE EXISTENCE AND LOCATION OF ANY UNDERGROUND UTILITY PIPES OR STRUCTURES SHOWN ON THESE PLANS HAS BEEN OBTAINED FROM AVAILABLE RECORDS ONLY AND MAY NOT REFLECT ALL EXISTING UTILITIES. LOCATION OF ALL EXISTING UTILITIES SHALL BE CONFIRMED BY FIELD MEASUREMENTS BY CONTRACTOR PRIOR TO CONSTRUCTION OF WORK. CONTRACTOR IS REQUIRED TO TAKE PRECAUTIONARY MEASURES TO PROTECT THE UTILITY LINES SHOWN HEREON AND ANY OTHER EXISTING LINES NOT OF RECORD OR NOT SHOWN ON THESE PLANS.

ACCURATE VERIFICATIONS AS TO SIZE, LOCATION AND DEPTH OF EXISTING UNDERGROUND SERVICES SHALL BE THE CONTRACTOR'S RESPONSIBILITY. THE CONTRACTOR SHALL NOTIFY THE SOUTHERN CALIFORNIA GAS COMPANY, AT 11111 IMPERIAL AVENUE, INDIO, CALIFORNIA 92201, COACHELLA VALLEY WATER DISTRICT AND ANY OTHER AFFECTED UTILITY AGENCIES PRIOR TO STARTING WORK NEAR SUCH UTILITY FACILITIES AND SHALL COORDINATE WORK WITH UTILITY REPRESENTATIVES. FOR LOCATION OF UNDERGROUND UTILITIES AND APPURTENANCES, CONTACT "UNDERGROUND SERVICE ALERT" AT 811.

- IT SHALL BE THE RESPONSIBILITY OF THE DEVELOPER TO CONTACT THE UTILITY AGENCIES ADVISE THEM OF THE PROPOSED IMPROVEMENTS AND BEAR THE COST OF RELOCATIONS, IF NEEDED.
- NO PAVING SHALL BE DONE UNTIL EXISTING POWER POLES ARE RELOCATED OUTSIDE THE AREAS TO BE PAVED.
- PRIVATE ROAD IMPROVEMENTS SHOWN HEREON ARE FOR INFORMATION ONLY. COUNTY OFFICIALS SIGNATURE HEREON DOES NOT CONSTITUTE APPROVAL OR RESPONSIBILITY OF ANY KIND FOR THE DESIGN OR CONSTRUCTION OF THESE PRIVATE IMPROVEMENTS.
- ALL SIGNS TO BE ALUMINUM WITH 3M HIGH INTENSITY TYPE REFLECTIVE FACE OR EQUIVALENT.
- CONTRACTOR SHALL DO ALL NEW STRIPING AND SANDBLASTING OF REDUNDANT STRIPING.
- THE CONTRACTOR SHALL BE RESPONSIBLE TO SECURE AN ENCROACHMENT PERMIT FROM THE COUNTY OF IMPERIAL DEPARTMENT OF PUBLIC WORKS FOR ANY EXCAVATION OR CONSTRUCTION WITHIN COUNTY ROAD RIGHT-OF-WAY. FOR INSPECTIONS, 48 HOUR MINIMUM NOTICE IS REQUIRED. (442) 265-1918. ADDITIONALLY, UNDERGROUND SERVICE ALERT (USA) MUST BE CALLED TWO WORKING DAYS PRIOR TO THE CONTRACTOR MAY EXCAVATE. THEIR CONTACT NUMBER IS 811. ALL WORK AND MATERIALS ARE SUBJECT TO THE INSPECTION AND APPROVAL FROM THE COUNTY DEPARTMENT OF PUBLIC WORKS OR THEIR REPRESENTATIVE.
- NO REVISIONS OF ANY KIND SHALL BE MADE TO THESE PLANS WITHOUT THE PRIOR WRITTEN APPROVAL OF BOTH THE COUNTY ENGINEER (OR HIS REPRESENTATIVE) AND THE ENGINEER OF RECORD. A REPRODUCIBLE AS-BUILT PLAN SET WILL BE PROVIDED TO THE PUBLIC WORKS DEPARTMENT AS A CONDITION OF SUBSTANTIAL CONSTRUCTION COMPLETION AND PRIOR TO ACCEPTANCE.
- ALL WORK AND MATERIALS SHALL CONFORM TO THESE PLANS AND SPECIFICATIONS, THE IMPERIAL COUNTY DEPARTMENT OF PUBLIC WORKS STANDARDS AND ENCROACHMENT PERMIT CONDITIONS, ANY REFERENCED STANDARDS AND SPECIFICATIONS AND THE SPECIFICATIONS & REQUIREMENTS OF THE AGENCIES REFERRED TO HEREIN. ALL WORK SHOWN OR INDICATED BY THESE PLANS SHALL BE COMPLETED IN ACCORDANCE WITH THE STANDARDS, POLICIES AND REGULATIONS OF IMPERIAL COUNTY WHERE, OR IF, CONFLICTS OCCUR, THEN THE IMPERIAL COUNTY REQUIREMENTS SHALL GOVERN.
- UNLESS SPECIFICALLY INDICATED OTHERWISE METHODS EMPLOYED AND MATERIAL USED IN THE CONSTRUCTION OF ALL OFFSITE IMPROVEMENTS SHALL CONFORM TO THE APPLICABLE PROVISIONS OF THE 2018 STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS OR STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, 2021 EDITION. ALL WORK IS SUBJECT TO INSPECTION AND APPROVAL AS REQUIRED.
- IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN AN EXCAVATION PERMIT FROM THE STATE OF CALIFORNIA DIVISION OF SAFETY AND TO ADHERE TO ALL PROVISIONS OF THE STATE CONSTRUCTION SAFETY ORDERS AND STANDARDS.
- IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN A GENERAL CONSTRUCTION ACTIVITY STORM WATER PERMIT FROM THE STATE WATER RESOURCES CONTROL BOARD DIVISION OF WATER QUALITY. CONTACT "STATE WATER RESOURCES CONTROL BOARD, DIVISION OF WATER QUALITY, ATTENTION: STORM WATER PERMIT UNIT, P.O. BOX 1977, SACRAMENTO, CALIFORNIA, 95812".
- CONSTRUCTION PROJECTS DISTURBING MORE THAN ONE ACRE MUST OBTAIN A NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT. OWNER/DEVELOPERS ARE REQUIRED TO FILE A NOTICE OF INTENT (NOI) WITH THE STATE WATER RESOURCES CONTROL BOARD, PREPARE A STORM WATER POLLUTION PREVENTION PLAN (SWPPP) AND

### GENERAL NOTES

#### MONITORING PLAN FOR THE SITE.

- EXISTING STORM DRAIN PIPES/CULVERTS WHETHER TO BE CONNECTED TO, EXTENDED, ADJUSTED, DRAINED TO, OR JUST IN PROJECT VICINITY SHALL BE REPAIRED AND/OR CLEANED TO MAKE THEM FUNCTIONAL AND ACCEPTABLE AS DIRECTED BY THE PUBLIC WORKS DIRECTOR.
- TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH THE CURRENT MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (M.U.T.C.D.) OR AS DIRECTED BY THE IMPERIAL COUNTY TRAFFIC ENGINEER.
- ANY EXISTING SURVEY MONUMENTS OR COUNTY RECOGNIZED BENCHMARKS SHALL BE PROTECTED BY THE CONTRACTOR. SHOULD ANY SUCH MONUMENTS OR BENCHMARKS BE REMOVED, DAMAGED, OBLITERATED OR ALTERED BY THE CONTRACTOR'S OPERATIONS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROPER RESETTING OF THE SAME AS PER THE SUBDIVISION MAP ACT, THE PROFESSIONAL LAND SURVEYORS ACT AND THE SATISFACTION OF THE COUNTY SURVEYOR/DIRECTOR OF PUBLIC WORKS. SUCH POINTS SHALL BE REFERENCED AND REPLACED WITH APPROPRIATE MONUMENTATION BY A LICENSED LAND SURVEYOR OR A REGISTERED CIVIL ENGINEER AUTHORIZED TO PRACTICE LAND SURVEYING. A CORNER RECORD OR RECORD OF SURVEY AS APPROPRIATE SHALL BE FILED BY THE LICENSED LAND SURVEYOR OR REGISTERED CIVIL ENGINEER.
- DUST SHALL BE CONTROLLED BY THE CONTRACTOR IN ACCORDANCE WITH ALL IMPERIAL COUNTY AIR POLLUTION CONTROL DISTRICT (APCD) FLIGHT DUST CONTROL RULES AND REGULATIONS AND SHALL COMPLY WITH THEIR PERMITTING REQUIREMENTS, IF APPLICABLE.

### SHEET INDEX

SHEET NO.	ITEM
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2	BOMBAY BEACH TOWNSITE ROADWAY IMPROVEMENT PLAN
3	BOMBAY BEACH TOWNSITE ROADWAY SECTION AND DETAIL SHEET
4	BOMBAY BEACH TOWNSITE ROADWAY DETAIL SHEET
5	BOMBAY BEACH TOWNSITE ROADWAY CHARTS
6	BOMBAY BEACH TOWNSITE ROADWAY CHARTS

### DECLARATION OF RESPONSIBLE CHARGE

I HEREBY DECLARE THAT I AM THE ENGINEER OF THE WORK OF THIS PROJECT, THAT I HAVE EXERCISED RESPONSIBLE CHARGE OVER THE DESIGN OF THE PROJECT AS DEFINED IN SECTION 6703 OF THE BUSINESS AND PROFESSIONS CODE AND THAT THE DESIGN IS CONSISTENT WITH CURRENT STANDARDS.

I UNDERSTAND THAT THE CHECK OF THE PROJECT DRAWINGS AND SPECIFICATIONS BY THE COUNTY OF IMPERIAL IS CONFINED TO REVIEW ONLY AND DOES NOT RELIEVE ME AS ENGINEER OF WORK, OF MY RESPONSIBILITY FOR PROJECT DESIGN.

*James G. Holt*  
JAMES G. HOLT, P.E.  
No. 31773  
Exp. 12-31-22  
1601 N. IMPERIAL AVENUE  
EL CENTRO, CALIFORNIA 92521  
(760) 337-9883

*James G. Holt*  
JAMES G. HOLT  
R.C.E. NO. 31773

REGISTERED PROFESSIONAL ENGINEER  
No. 62028  
Exp. 9-30-23  
CIVIL  
STATE OF CALIFORNIA

DATE: 5/15/2022  
EXPIRATION DATE: 12-31-22

**The Holt Group**  
1601 N. Imperial Avenue  
El Centro, CA 92543  
Phone: (760) 337-3883  
Fax: (760) 337-6997

REVISION	DATE	COMMENTS

PREPARED UNDER THE DIRECT SUPERVISION OF:

*James G. Holt*  
JAMES G. "JACK" HOLT, P.E.  
No. 31773  
Exp. 12-31-22

03/15/2022  
DATE

COUNTY OF IMPERIAL PUBLIC WORKS DEPARTMENT  
APPROVED FOR CONSTRUCTION BY:

*John Gay*  
JOHN GAY, P.E.  
DIRECTOR OF PUBLIC WORKS  
5/13/2022  
DATE

62028  
R.C.E. No.

9/30/23  
REG. EXP.

COUNTY OF IMPERIAL PUBLIC WORKS DEPARTMENT  
EL CENTRO, CALIFORNIA

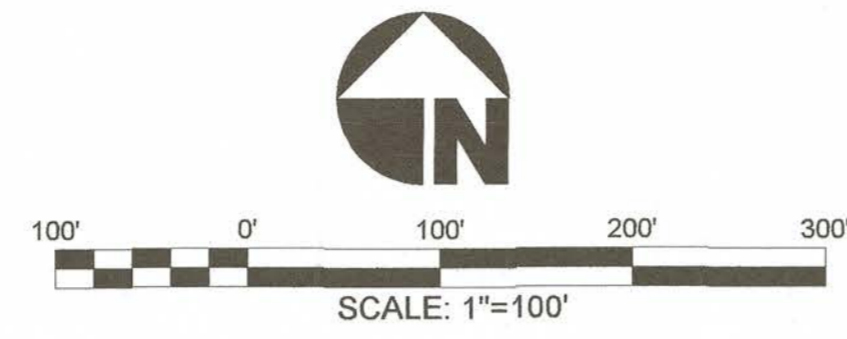
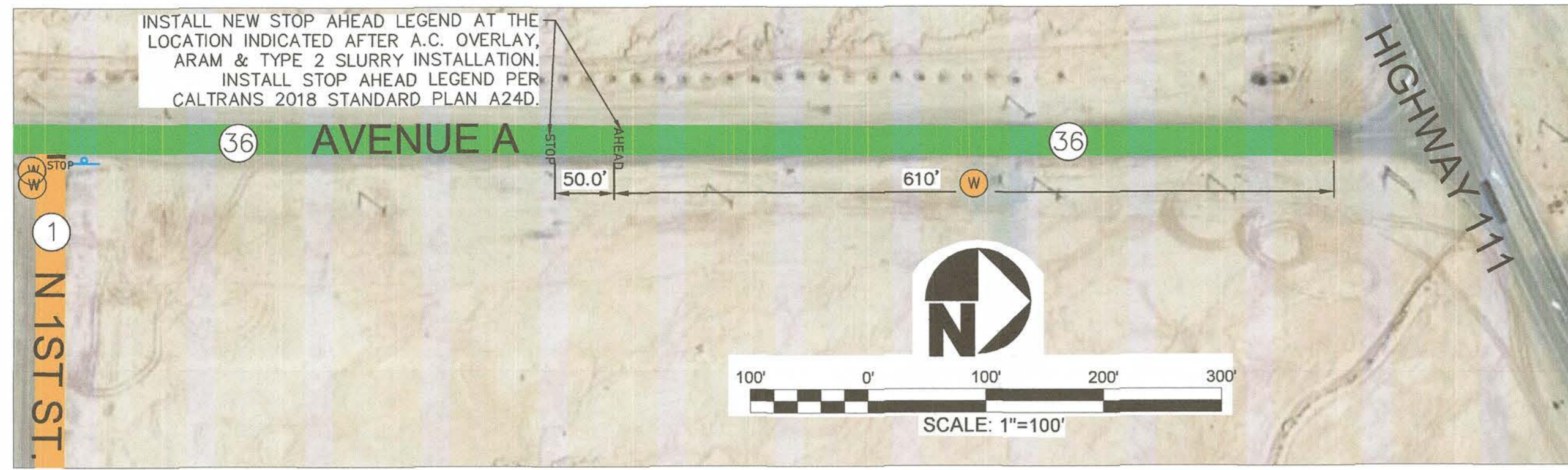
PROJECT TITLE  
**COUNTY OF IMPERIAL - BOMBAY BEACH TOWNSITE ROADWAY IMPROVEMENT PROJECT - COUNTY PROJECT NO. 6810**

DATE: 03/15/2022  
DRAWN: JM  
SCALE:  
CHECKED: JGH

### TITLE SHEET

REFERENCE: **R1005**

THG # 542.106  
SHEET 1 OF 6



BOMBAY BEACH ROADWAY CHART- TABLE 1

STREET SECTION NUMBER	STREET	FROM	TO	WIDTH (FT)	LENGTH (FT)	PAVEMENT SQFT	PAVEMENT SQUARE YARD
1	1ST STREET	E. SIDE OF AVENUE "A"	W. SIDE OF AISLE OF PALMS	26	2,582	67,132	7,459
2	2ND STREET	E. SIDE OF AVENUE "A"	W. SIDE OF AISLE OF PALMS	26	2,581	67,106	7,456
3	3RD STREET	E. SIDE OF AVENUE "A"	W. SIDE OF AVENUE "G"	26	1,936	50,336	5,593
4	3RD STREET	W. SIDE OF AVENUE "G"	W. SIDE OF AISLE OF PALMS	29	643	18,647	2,072
5	AVENUE "B"	S. SIDE OF 2ND STREET	N. SIDE OF 3RD STREET	25	293	7,325	814
6	AVENUE "B"	S. SIDE OF 3RD STREET	N. SIDE OF 4TH STREET	26	633	16,458	1,829
7	AVENUE "B"	S. SIDE OF 4TH STREET	N. SIDE OF 5TH STREET	26	620	16,120	1,791
8	AVENUE "C"	S. SIDE OF 1ST STREET	N. SIDE OF 2ND STREET	25.5	305	7,778	864
9	AVENUE "C"	S. SIDE OF 2ND STREET	N. SIDE OF 3RD STREET	27	294	7,938	882
10	AVENUE "C"	S. SIDE OF 3RD STREET	N. SIDE OF 4TH STREET	25	639	15,975	1,775
11	AVENUE "C"	S. SIDE OF 4TH STREET	N. SIDE OF 5TH STREET	26	625	16,250	1,806
12	AVENUE "D"	S. SIDE OF 1ST STREET	N. SIDE OF 2ND STREET	27	305	8,235	915
13	AVENUE "D"	S. SIDE OF 2ND STREET	N. SIDE OF 3RD STREET	25	296	7,400	822
14	AVENUE "D"	S. SIDE OF 3RD STREET	N. SIDE OF 4TH STREET	27	636	17,172	1,908
15	AVENUE "D"	S. SIDE OF 4TH STREET	N. SIDE OF 5TH STREET	26	625	16,250	1,806
16	AVENUE "E"	S. SIDE OF 1ST STREET	N. SIDE OF 2ND STREET	23	305	7,015	779
17	AVENUE "E"	S. SIDE OF 2ND STREET	N. SIDE OF 3RD STREET	24	295	7,080	787
18	AVENUE "E"	S. SIDE OF 3RD STREET	N. SIDE OF 4TH STREET	25	637	15,925	1,769
19	AVENUE "E"	S. SIDE OF 4TH STREET	N. SIDE OF 5TH STREET	24	632	15,168	1,685
20	AVENUE "F"	S. SIDE OF 1ST STREET	N. SIDE OF 2ND STREET	26	306	7,956	884
21	AVENUE "F"	S. SIDE OF 2ND STREET	N. SIDE OF 3RD STREET	26	292	7,592	844
22	AVENUE "F"	S. SIDE OF 3RD STREET	N. SIDE OF 4TH STREET	24.5	635	15,558	1,729
23	AVENUE "F"	S. SIDE OF 4TH STREET	N. SIDE OF 5TH STREET	26	632	16,432	1,826
24	AVENUE "G"	S. SIDE OF 1ST STREET	N. SIDE OF 2ND STREET	26.5	306	8,109	901
25	AVENUE "G"	S. SIDE OF 2ND STREET	N. SIDE OF 3RD STREET	26.5	293	7,765	863
26	AVENUE "G"	S. SIDE OF 3RD STREET	N. SIDE OF 4TH STREET	28	632	16,432	1,826
27	AVENUE "G"	S. SIDE OF 4TH STREET	N. SIDE OF 5TH STREET	31.5	628	19,782	2,198
28	AVENUE "H"	S. SIDE OF 1ST STREET	N. SIDE OF 2ND STREET	28	306	8,588	952
29	AVENUE "H"	S. SIDE OF 2ND STREET	N. SIDE OF 3RD STREET	24.5	293	7,179	798
30	AVENUE "H"	S. SIDE OF 3RD STREET	N. SIDE OF 4TH STREET	27	628	16,966	1,884
31	AVENUE "H"	S. SIDE OF 4TH STREET	N. SIDE OF 5TH STREET	27	625	16,875	1,875
32	AISLE OF PALMS	N. SIDE OF 1ST STREET	N. SIDE OF 2ND STREET	27	318	8,586	954
33	AISLE OF PALMS	N. SIDE OF 2ND STREET	N. SIDE OF 3RD STREET	30	320	9,600	1,067
34	AISLE OF PALMS	N. SIDE OF 3RD STREET	N. SIDE OF 4TH STREET	22	655	14,410	1,601
35	AISLE OF PALMS	N. SIDE OF 4TH STREET	N. SIDE OF 5TH STREET	14	645	9,030	1,003
36	AVENUE "A"	HIGHWAY 111	N. SIDE OF 1ST STREET	28	1,110	31,080	3,453
37	AVENUE "A"	N. SIDE OF 1ST STREET	N. SIDE OF 2ND STREET	28	335	9,380	1,042
38	AVENUE "A"	N. SIDE OF 2ND STREET	S. SIDE OF 5TH STREET	25.5	1,630	41,565	4,618
39	AVENUE "B"	S. SIDE OF 1ST STREET	N. SIDE OF 2ND STREET	25	306	7,650	850
40	4TH STREET	E. SIDE OF AVENUE "A"	W. SIDE OF AVENUE "G"	26	1,950	50,700	5,633
41	4TH STREET	W. SIDE OF AVENUE "G"	E. SIDE OF AVENUE "H"	30	360	10,800	1,200
42	4TH STREET	E. SIDE OF AVENUE "H"	W. SIDE OF AISLE OF PALMS	35	297	10,395	1,155
43	5TH STREET	E. SIDE OF AVENUE "A"	E. SIDE OF AVENUE "F"	14	1,629	22,806	2,534
44	5th STREET	W. SIDE OF AVENUE "G"	E. SIDE OF AISLE OF PALMS	14	668	9,352	1,039
45	5th STREET	E. SIDE OF AVENUE "F"	W. SIDE OF AVENUE "G"	14	300	4,200	467
<b>TOTALS</b>					<b>30,981 L.F.</b>	<b>737,708 S.F.</b>	<b>86,008 SYD</b>

LEGEND

ITEM NO.	SYMBOL	ITEM
1	[Green Line]	STREET SECTIONS TO BE IMPROVED BY REHABILITATION CONSISTING OF VARIABLE DEPTH HOT MIX OVERLAY, ARAM AND TYPE 2 SLURRY. SEE SECTION A-A ON PLAN SHEET 3.
2	[Orange Line]	STREET SECTIONS TO BE IMPROVED BY REHABILITATION CONSISTING OF AN A.C. SKIN PATCH FOLLOWED BY A VARIABLE DEPTH HOT MIX OVERLAY, ARAM AND TYPE 2 SLURRY. SEE SECTION B-B ON PLAN SHEET 3.
3	[W]	EXISTING WATER VALVE OUT OF PAVEMENT.
4	[S]	EXISTING SANITARY SEWER MANHOLE OUT OF PAVEMENT.
5	[W]	EXISTING WATER VALVE IN PAVEMENT. RAISE WATER VALVE TO FINISH PAVEMENT SURFACE PER DETAIL D ON PLAN SHEET 4.
6	[S]	EXISTING SANITARY SEWER MANHOLE IN PAVEMENT. RAISE MANHOLE FRAME AND COVER TO FINISH PAVEMENT SURFACE PER DETAIL E ON PLAN SHEET 4.
7	[1]	STREET SECTION NUMBERS.
8	[Stop Sign]	EXISTING STOP SIGN TO REMAIN.
9	[E-F]	REMOVE AND DISPOSE OF EXISTING A.C. PAVEMENT. INSTALL NEW A.C. PAVEMENT PER SECTION E-E ON SHEET 3, AND TABLE E ON SHEET 6. SAWCUT EXISTING A.C. PAVEMENT ALONG THE PERIMETER OF THE PAVEMENT FAILURE AREA FOR THE FULL PAVEMENT DEPTH.
10	[A-C]	REMOVE AND DISPOSE OF EXISTING A.C. PAVEMENT IN SWALE AREAS ALONG THE NORTH AND SOUTH SIDES OF 2ND, 3RD AND 4TH STREETS. INSTALL NEW A.C. PAVEMENT IN SWALE AREAS PER DETAIL A AND SECTION C-C ON SHEET 3, AND TABLE D ON SHEET 6.
11	[Blue Circle]	INSTALL BLUE RAISED DOUBLE REFLECTIVE PAVEMENT MARKER.
12	[Stop Sign]	INSTALL STOP BAR AND STOP LEGEND. INSTALL STOP LEGENDS PER CALTRANS 2018 STANDARD PLAN A24D. INSTALL STOP BAR (STOP LINE) PER CALTRANS 2018 STANDARD PLAN A24E.

**The Holt Group**  
 1601 N. Imperial Avenue  
 El Centro, CA 92243  
 Phone: (760) 337-3883  
 Fax: (760) 337-5997

REVISION	DATE	COMMENTS

PREPARED UNDER THE DIRECT SUPERVISION OF:  
  
 No. 31773  
 Exp. 12-31-22  
 CIVIL  
 STATE OF CALIFORNIA

JAMES S. JACK HOLT, P.E.  
 31773 R.C.E. No.  
 12/31/22 REG. EXP.  
 DATE

COUNTY OF IMPERIAL PUBLIC WORKS DEPARTMENT  
 APPROVED FOR CONSTRUCTION BY:  
  
 No. 62028  
 Exp. 9-30-23  
 CIVIL  
 STATE OF CALIFORNIA

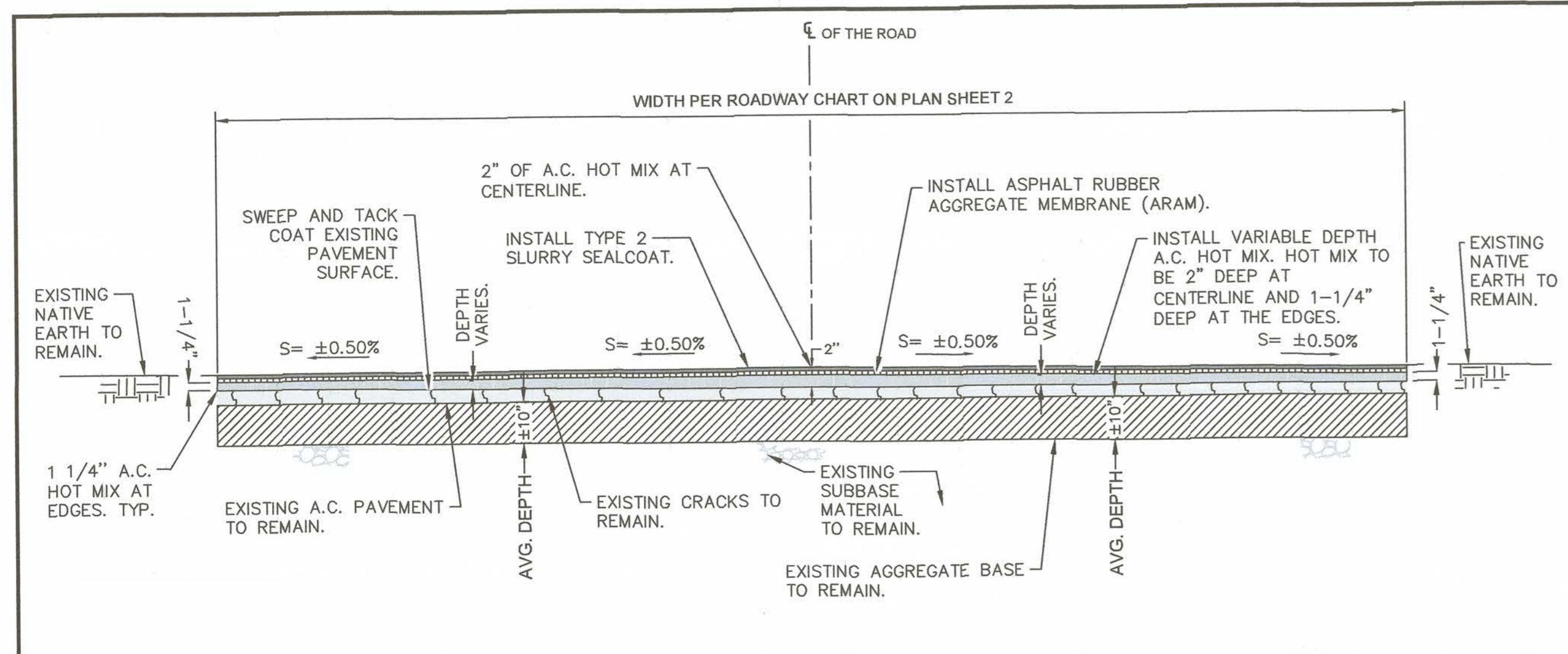
JOHN GAY, P.E.  
 62028 R.C.E. No.  
 9/30/23 REG. EXP.  
 DATE

PUBLIC WORKS DEPARTMENT  
**COUNTY OF IMPERIAL**  
 EL CENTRO, CALIFORNIA

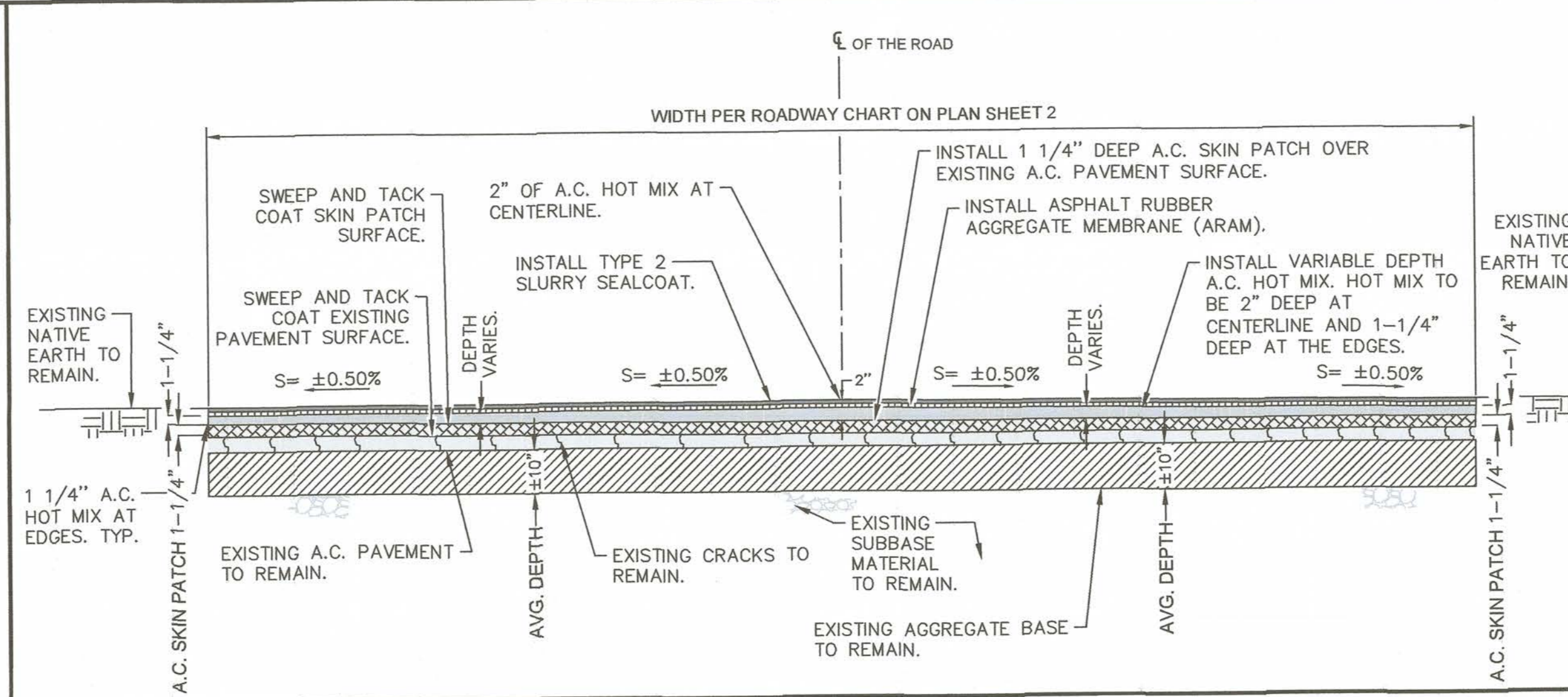
PROJECT TITLE  
**COUNTY OF IMPERIAL - BOMBAY BEACH TOWNSITE ROADWAY IMPROVEMENT PROJECT - COUNTY PROJECT NO. 6810**

BOMBAY BEACH TOWNSITE ROADWAY IMPROVEMENT PLAN

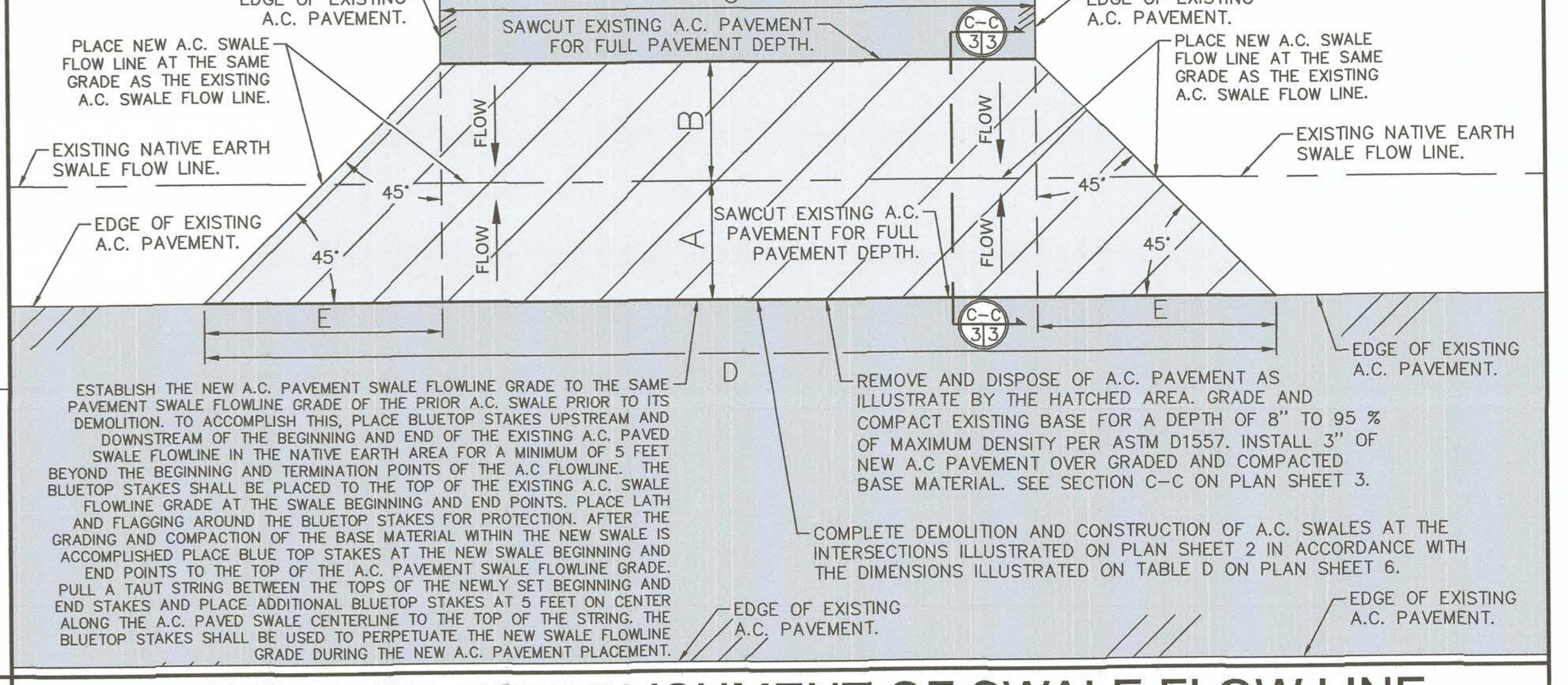
REFERENCE	THG # 542.106
<b>R1005</b>	SHEET 2 OF 6



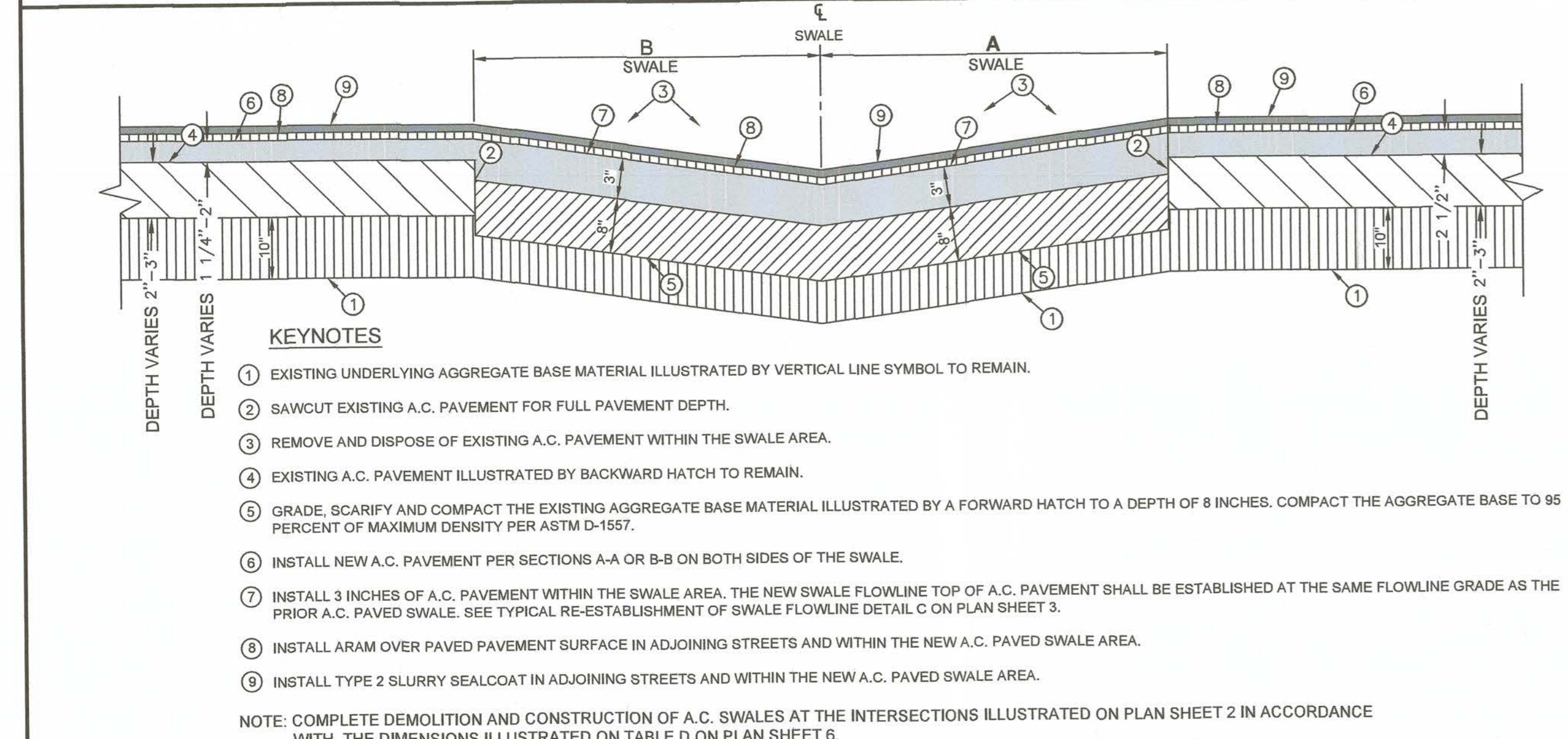
**VARIABLE DEPTH A.C. OVERLAY / ARAM / TYPE 2 SLURRY IMPROVED ROAD SECTION** (A-A)  
NTS 2/3



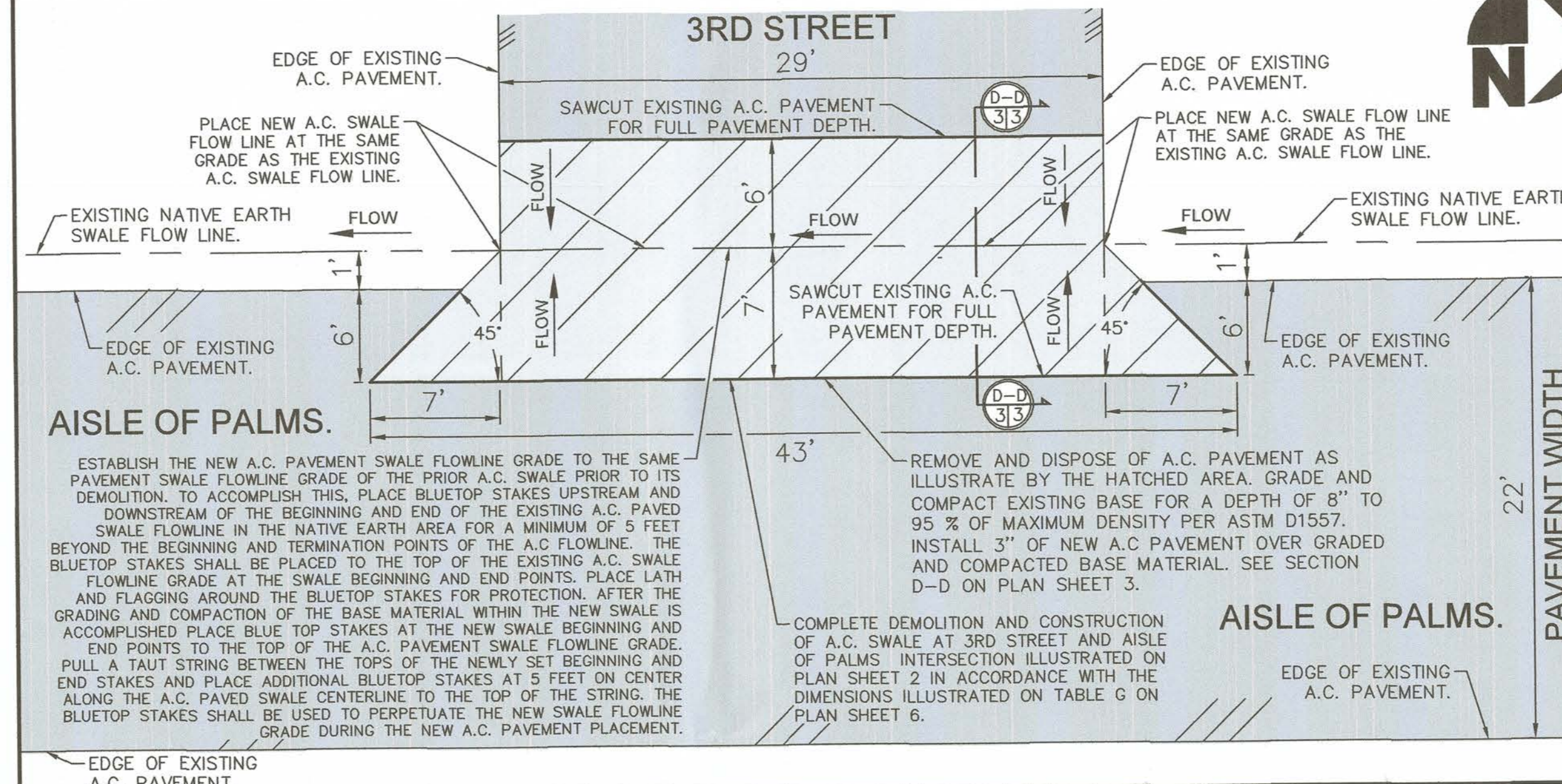
**SKIN PATCH / VARIABLE DEPTH A.C. OVERLAY / ARAM / TYPE 2 SLURRY IMPROVED ROAD SECTION** (B-B)  
NTS 2/3



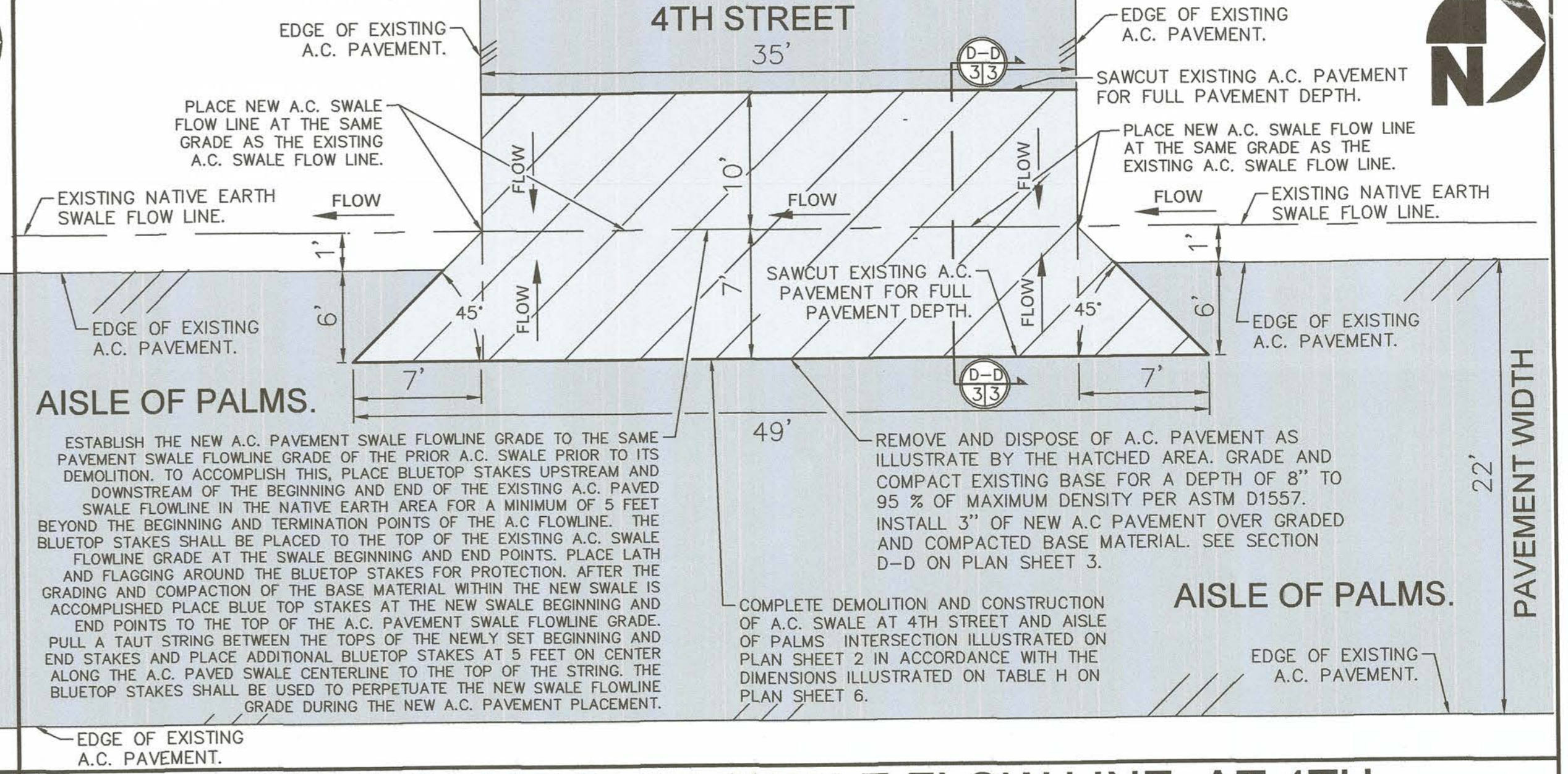
**TYPICAL RE-ESTABLISHMENT OF SWALE FLOW LINE - DETAIL A**  
NTS 2/3



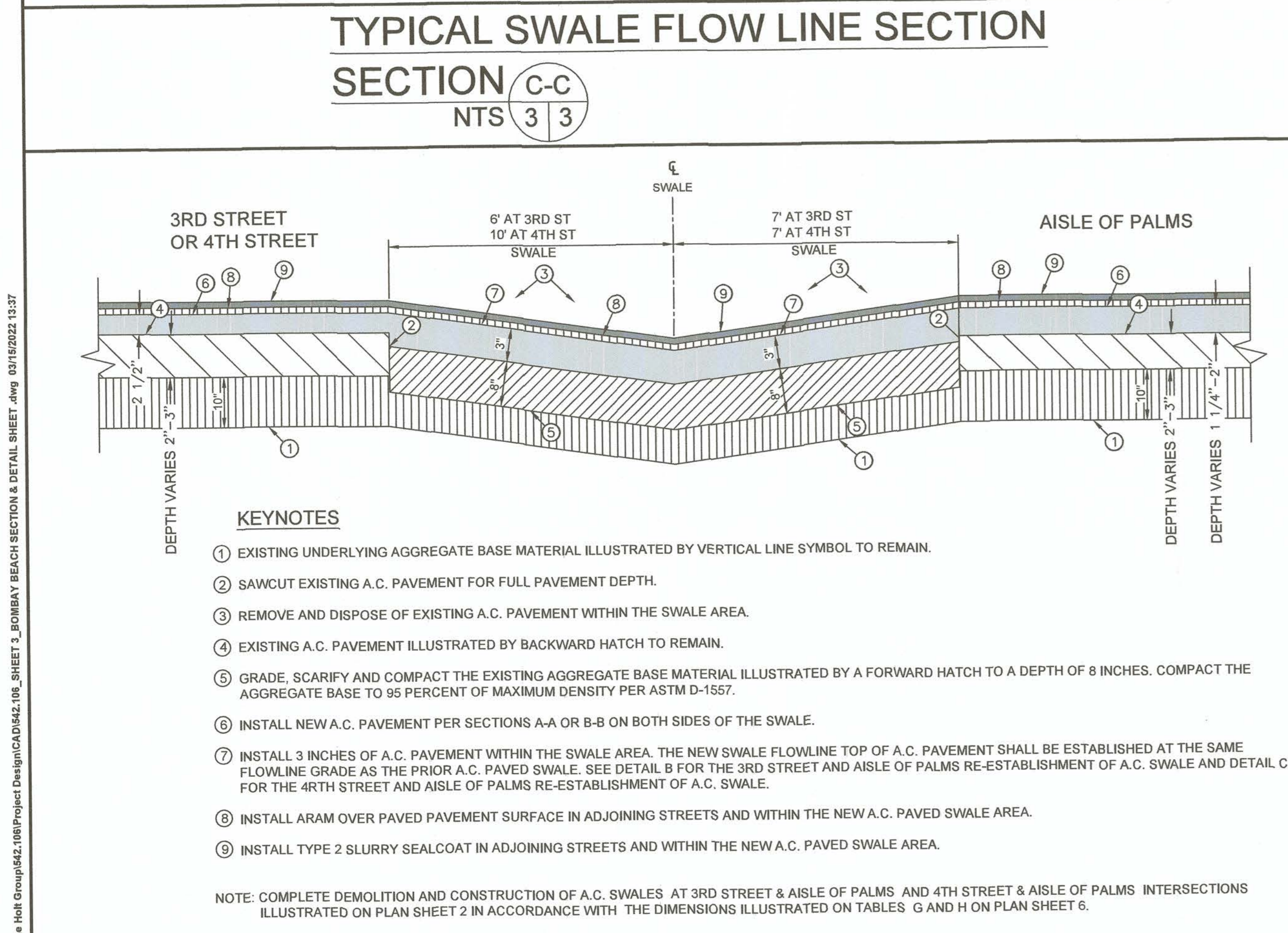
**TYPICAL SWALE FLOW LINE SECTION** (C-C)  
NTS 3/3



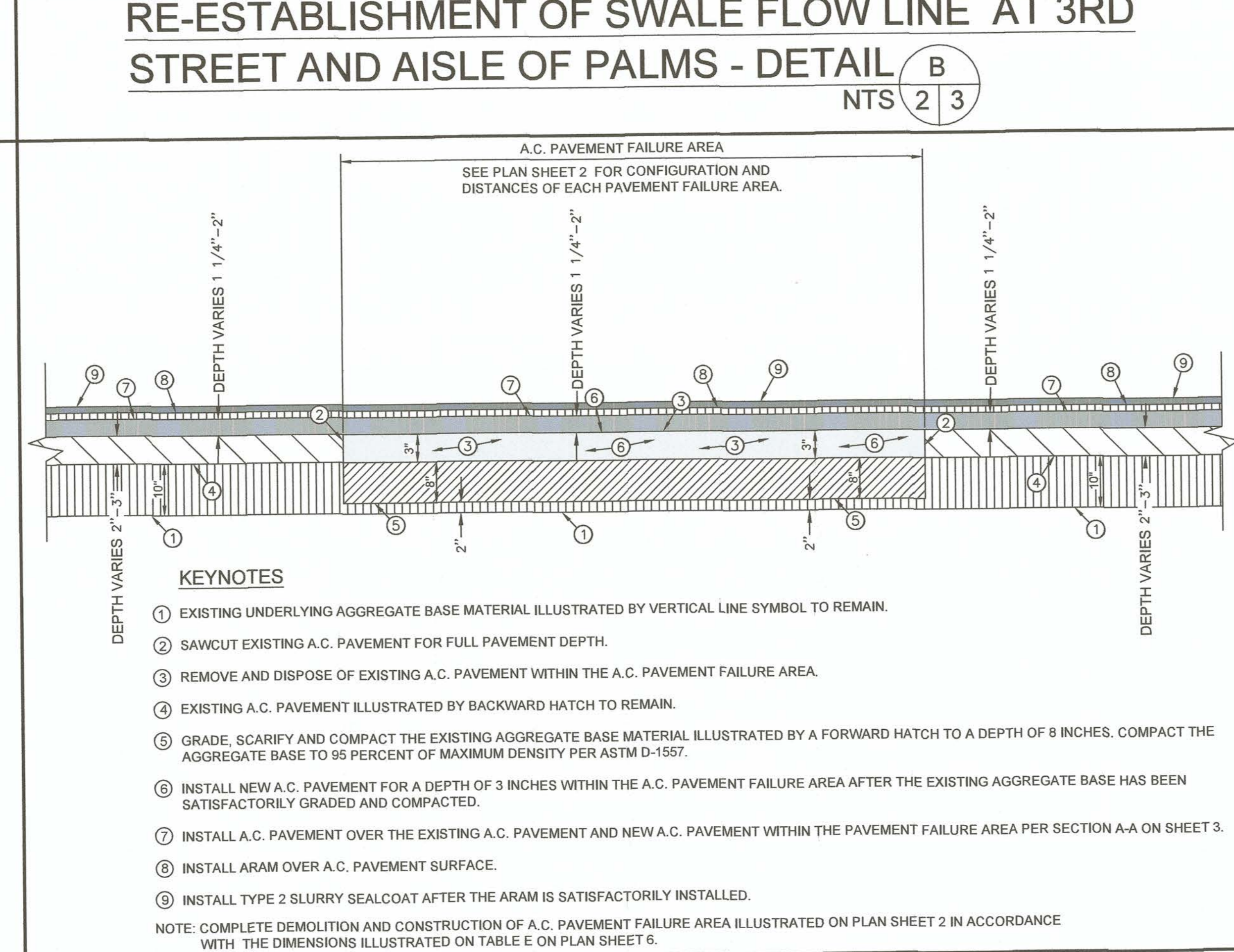
**RE-ESTABLISHMENT OF SWALE FLOW LINE AT 3RD STREET AND AISLE OF PALMS - DETAIL B**  
NTS 2/3



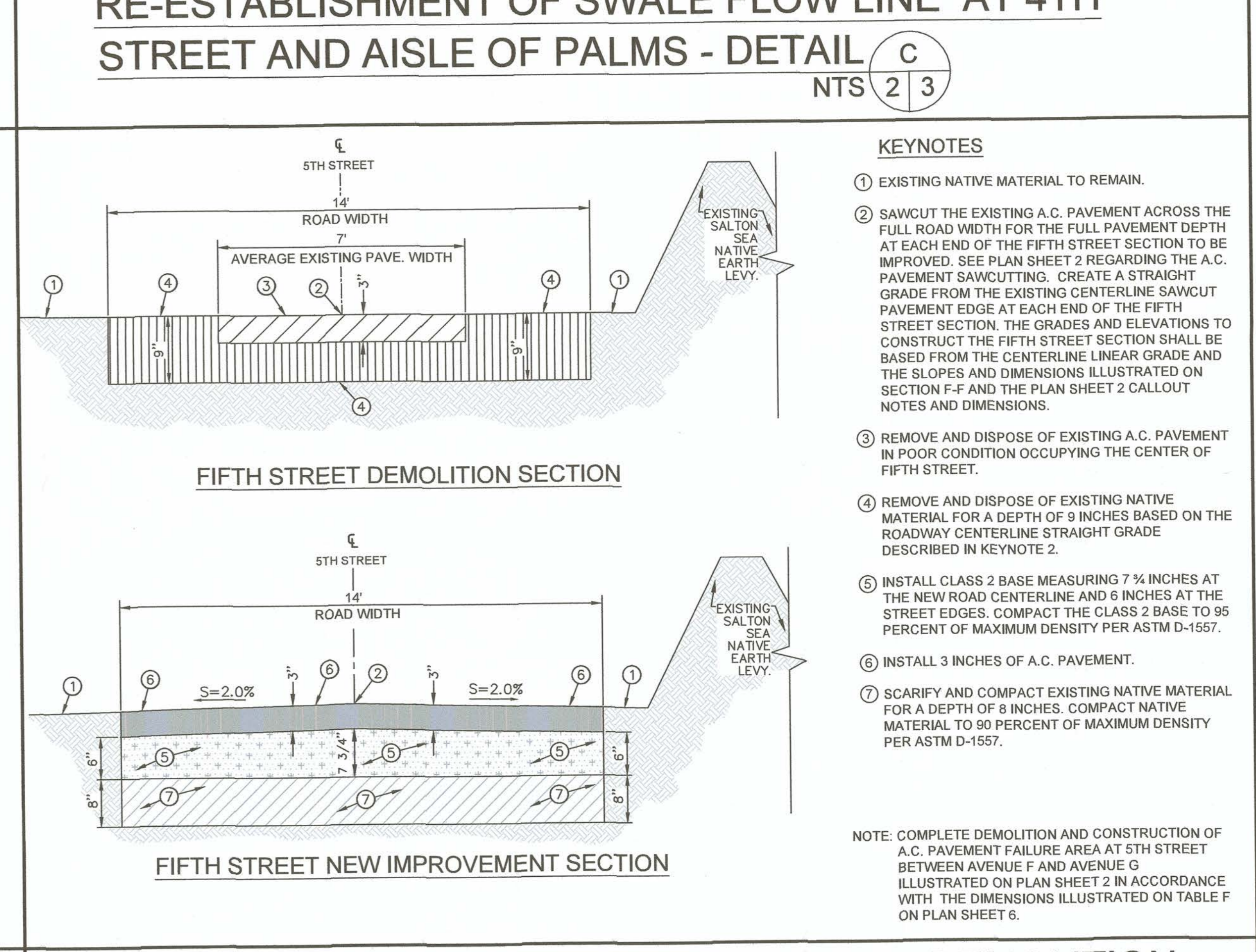
**RE-ESTABLISHMENT OF SWALE FLOW LINE AT 4TH STREET AND AISLE OF PALMS - DETAIL C**  
NTS 2/3



**SWALE FLOW LINE AT 3RD ST. AND AISLE OF PALMS AND 4TH ST. AND AISLE OF PALMS - SECTION D-D**  
NTS 3/3



**PAVEMENT FAILURE AREA SECTION** (E-E)  
NTS 2/3



**FIFTH STREET BETWEEN AVENUES F & G - DEMOLITION AND IMPROVEMENT SECTIONS** (F-F)  
NTS 2/3

**The Holt Group**  
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REVISION	DATE	COMMENTS

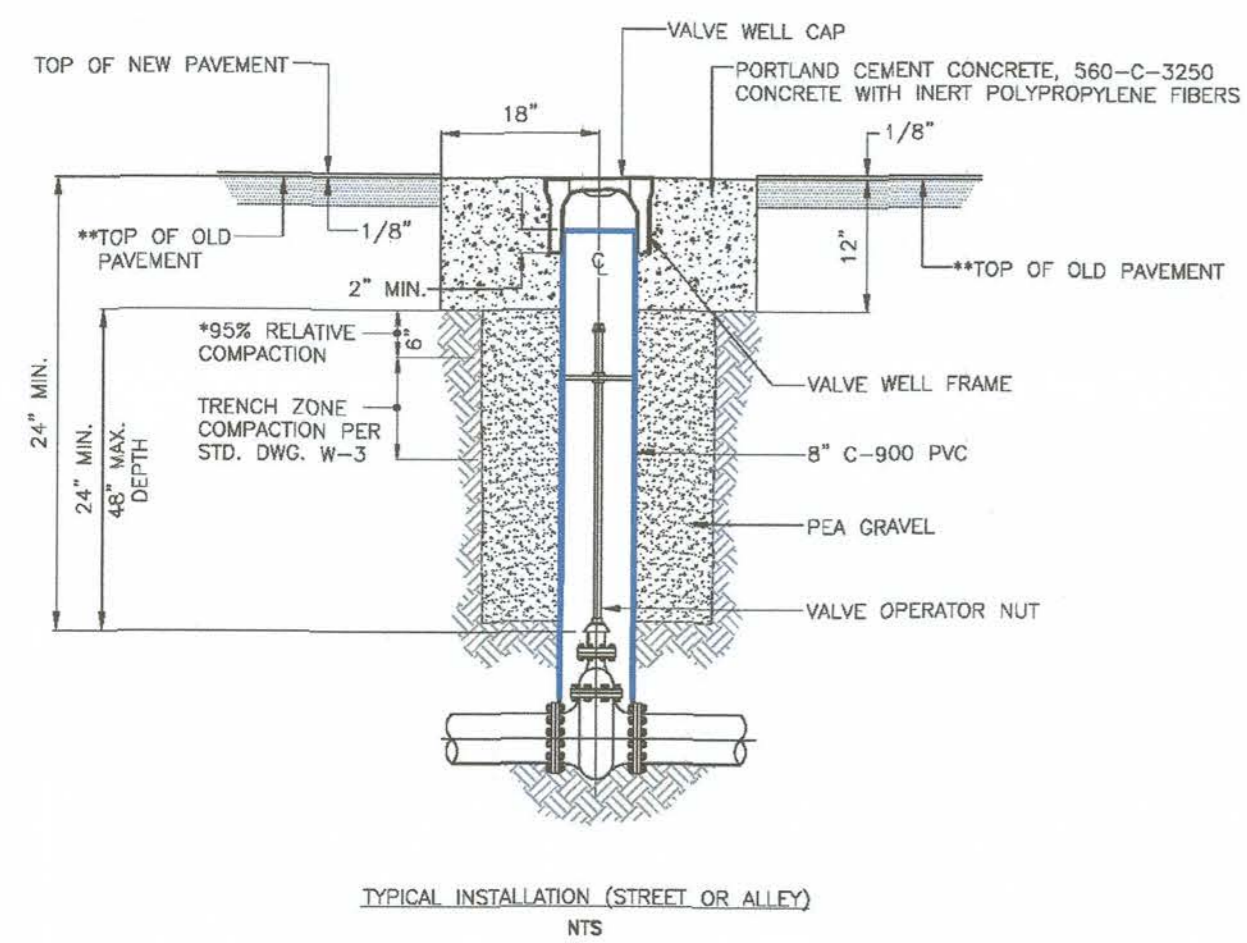
PREPARED UNDER THE DIRECT SUPERVISION OF:  
**JAMES G. JACK HOLT, P.E.**  
03/15/2022 DATE

COUNTY OF IMPERIAL PUBLIC WORKS DEPARTMENT  
APPROVED FOR CONSTRUCTION BY:  
**John Gay, P.E.**  
5/3/2022 DATE

**COUNTY OF IMPERIAL**  
EL CENTRO, CALIFORNIA

PROJECT TITLE  
**COUNTY OF IMPERIAL - BOMBAY BEACH TOWNSITE ROADWAY IMPROVEMENT PROJECT - COUNTY PROJECT NO. 6810**

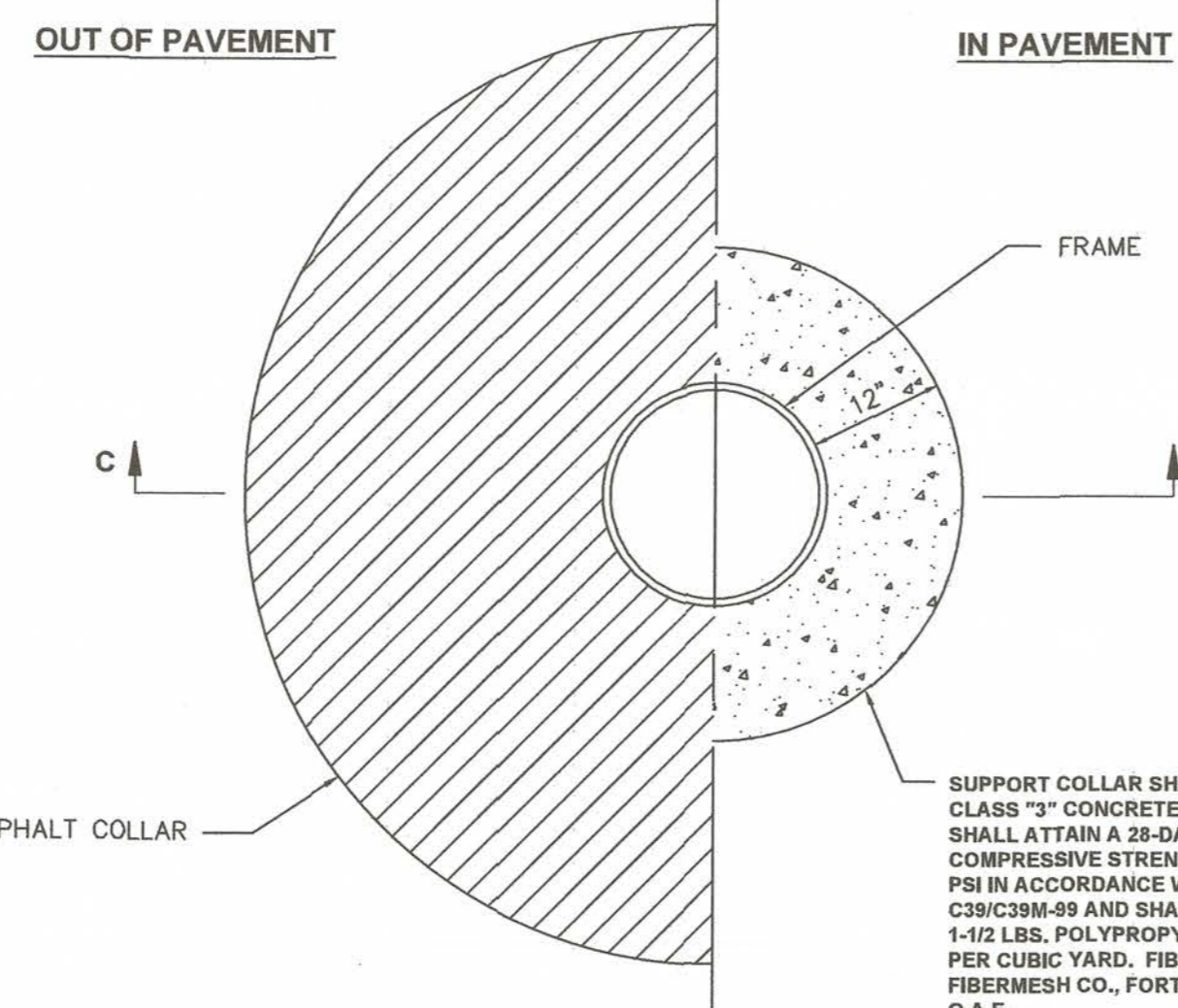
BOMBAY BEACH TOWNSITE ROADWAY SECTION AND DETAIL SHEET  
REFERENCE: **R1005**  
THG # 542.106  
SHEET 3 OF 6



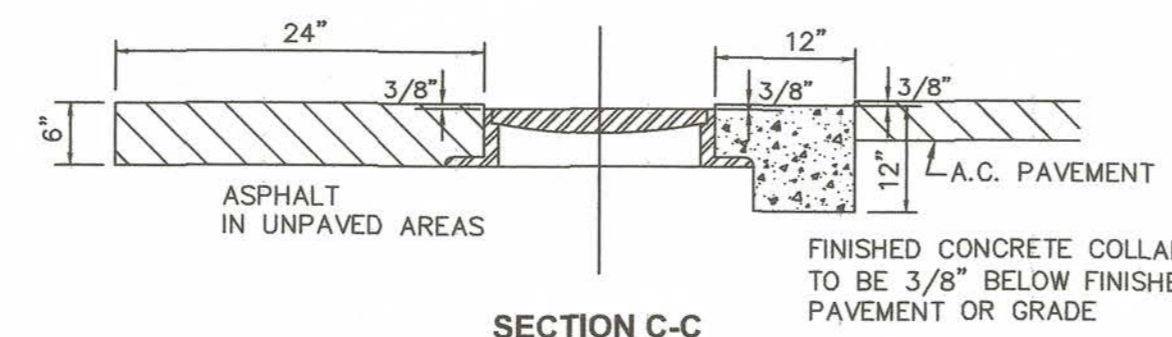
TYPICAL INSTALLATION (STREET OR ALLEY)  
NTS

- NOTES:
- WHERE VALVE OPERATING NUT IS GREATER THAN 48" BELOW THE SURFACE AN EXTENSION ROD FOR VALVE OPERATION, WITH CIRCULAR CENTERING GUIDE, SHALL BE REQUIRED. THE TOP OF THE EXTENSION ROD SHALL BE MIN. 24" AND MAX. 48" BELOW THE SURFACE.
  - FOR VALVE OPERATOR WELL CAP SEE STD. DRAWING W-16
  - FOR MARKER POST SEE STD. DRAWING W-27
  - \*PER COUNTY OF RIVERSIDE STANDARD NO. 818 TRENCH BACKFILL
  - \*\*REFERENCED AS 6 MONTHS OR OLDER

COACHELLA VALLEY WATER DISTRICT DETAIL NO. W-17



FRAME & COLLAR



SECTION C-C

COUNTY OF IMPERIAL DEPARTMENT OF PUBLIC WORKS STANDARD NO. 221

VALVE OPERATOR WELL INSTALLATION-

DETAIL **D**  
NTS **2 4**

MANHOLE SUPPORT COLLAR - DETAIL **E**

NTS

**2 4**

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**The Holt Group**  
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REVISION	DATE	COMMENTS

REGISTERED PROFESSIONAL ENGINEER  
No. 31773  
Exp. 12-31-22  
CIVIL  
STATE OF CALIFORNIA

PREPARED UNDER THE DIRECT SUPERVISION OF:  
*James G. Holt*  
JAMES G. "JACK" HOLT, P.E.  
31773 R.C.E. No.  
12/31/22 REG. EXP.  
DATE

REGISTERED PROFESSIONAL ENGINEER  
No. 62028  
Exp. 9-30-23  
CIVIL  
STATE OF CALIFORNIA

COUNTY OF IMPERIAL PUBLIC WORKS DEPARTMENT  
APPROVED FOR CONSTRUCTION BY:  
*John Gay*  
JOHN GAY, P.E.  
DIRECTOR OF PUBLIC WORKS  
6/3/2022 DATE  
62028 R.C.E. No.  
9/30/23 REG. EXP.

PUBLIC WORKS DEPARTMENT  
**COUNTY OF IMPERIAL**  
EL CENTRO, CALIFORNIA

DATE	03/15/2022
DRAWN	JM
SCALE	
CHECKED	JGH

PROJECT TITLE  
**COUNTY OF IMPERIAL - BOMBAY BEACH TOWNSITE ROADWAY IMPROVEMENT PROJECT - COUNTY PROJECT NO. 6810**

BOMBAY BEACH TOWNSITE ROADWAY DETAIL SHEET	
REFERENCE	THG # 542.106
<b>R1005</b>	SHEET 4 OF 6

ROAD REHABILITATION CHART- VARIABLE DEPTH A.C. OVERLAY, ARAM AND TYPE 2 SLURRY - TABLE A

STREET SECTION NUMBER	STREET	FROM	TO	WIDTH (FT)	LENGTH (FT)	PAVEMENT S.F.	ACCUMULATIVE PAVEMENT S.F.	PAVEMENT SYD	ACCUMULATIVE PAVEMENT SYD	VARIABLE DEPTH A.C. OVERLAY- 2" AT CENTER LINE & 1 1/4" AT RD. EDGES (TONS)	ACCUMULATIVE VARIABLE DEPTH A.C. OVERLAY- 2" AT CENTER LINE & 1 1/4" AT RD. EDGES (TONS)	SLURRY SEAL COAT DRY POUND SAND 18 LB/SYD (TONS)	ACCUMULATIVE SLURRY SEAL COAT DRY POUND SAND 18 LB/SYD (TONS)
5	AVENUE "B"	S. SIDE OF 2ND STREET	N. SIDE OF 3RD STREET	25	293	7,325	7,325	814	814	77	77	8	8
6	AVENUE "B"	S. SIDE OF 3RD STREET	N. SIDE OF 4TH STREET	26	633	16,458	23,783	1,829	2,643	173	250	17	25
7	AVENUE "B"	S. SIDE OF 4TH STREET	N. SIDE OF 5TH STREET	26	620	16,120	39,903	1,791	4,434	170	420	17	42
8	AVENUE "C"	S. SIDE OF 1ST STREET	N. SIDE OF 2ND STREET	25.5	305	7,778	47,681	864	5,298	82	502	8	50
9	AVENUE "C"	S. SIDE OF 2ND STREET	N. SIDE OF 3RD STREET	27	294	7,938	55,619	882	6,180	84	586	8	58
10	AVENUE "C"	S. SIDE OF 3RD STREET	N. SIDE OF 4TH STREET	25	639	15,975	71,594	1,775	7,955	168	754	16	74
11	AVENUE "C"	S. SIDE OF 4TH STREET	N. SIDE OF 5TH STREET	26	625	16,250	87,844	1,806	9,761	171	925	17	91
12	AVENUE "D"	S. SIDE OF 1ST STREET	N. SIDE OF 2ND STREET	27	305	8,235	96,079	915	10,676	87	1,012	9	100
13	AVENUE "D"	S. SIDE OF 2ND STREET	N. SIDE OF 3RD STREET	25	298	7,400	103,479	822	11,498	78	1,090	8	108
14	AVENUE "D"	S. SIDE OF 3RD STREET	N. SIDE OF 4TH STREET	27	636	17,172	120,651	1,908	13,406	181	1,271	18	126
15	AVENUE "D"	S. SIDE OF 4TH STREET	N. SIDE OF 5TH STREET	26	625	16,250	136,901	1,806	15,212	171	1,442	17	143
16	AVENUE "E"	S. SIDE OF 1ST STREET	N. SIDE OF 2ND STREET	23	305	7,015	143,916	779	15,991	74	1,516	8	151
17	AVENUE "E"	S. SIDE OF 2ND STREET	N. SIDE OF 3RD STREET	24	295	7,080	150,996	787	16,778	75	1,591	8	159
18	AVENUE "E"	S. SIDE OF 3RD STREET	N. SIDE OF 4TH STREET	25	637	15,925	166,921	1,769	18,547	168	1,759	16	175
19	AVENUE "E"	S. SIDE OF 4TH STREET	N. SIDE OF 5TH STREET	24	632	15,168	182,089	1,685	20,232	160	1,919	16	191
20	AVENUE "F"	S. SIDE OF 1ST STREET	N. SIDE OF 2ND STREET	26	306	7,956	190,045	884	21,116	84	2,003	8	199
21	AVENUE "F"	S. SIDE OF 2ND STREET	N. SIDE OF 3RD STREET	26	292	7,992	197,637	844	21,960	80	2,083	8	207
22	AVENUE "F"	S. SIDE OF 3RD STREET	N. SIDE OF 4TH STREET	24.5	635	15,558	213,194	1,729	23,689	164	2,247	16	223
23	AVENUE "F"	S. SIDE OF 4TH STREET	N. SIDE OF 5TH STREET	26	632	16,432	229,626	1,826	25,515	173	2,420	17	240
24	AVENUE "G"	S. SIDE OF 1ST STREET	N. SIDE OF 2ND STREET	26.5	306	8,109	237,735	901	26,416	86	2,508	9	249
25	AVENUE "G"	S. SIDE OF 2ND STREET	N. SIDE OF 3RD STREET	26.5	293	7,765	245,500	863	27,279	82	2,588	8	257
26	AVENUE "G"	S. SIDE OF 3RD STREET	N. SIDE OF 4TH STREET	26	632	16,432	261,932	1,826	29,105	173	2,761	17	274
27	AVENUE "G"	S. SIDE OF 4TH STREET	N. SIDE OF 5TH STREET	31.5	628	19,782	281,714	2,198	31,303	208	2,969	20	294
28	AVENUE "H"	S. SIDE OF 1ST STREET	N. SIDE OF 2ND STREET	28	306	8,568	290,282	952	32,255	90	3,059	9	303
29	AVENUE "H"	S. SIDE OF 2ND STREET	N. SIDE OF 3RD STREET	24.5	293	7,179	297,460	798	33,053	76	3,135	8	311
30	AVENUE "H"	S. SIDE OF 3RD STREET	N. SIDE OF 4TH STREET	27	628	16,956	314,416	1,884	34,937	179	3,314	17	328
31	AVENUE "H"	S. SIDE OF 4TH STREET	N. SIDE OF 5TH STREET	27	625	16,875	331,291	1,875	36,812	178	3,492	17	345
32	AISLE OF PALMS	S. SIDE OF 1ST STREET	N. SIDE OF 2ND STREET	27	318	8,586	339,877	954	37,766	91	3,583	9	354
33	AISLE OF PALMS	S. SIDE OF 2ND STREET	N. SIDE OF 3RD STREET	30	320	9,800	349,677	1,067	38,833	101	3,684	10	364
34	AISLE OF PALMS	S. SIDE OF 3RD STREET	N. SIDE OF 4TH STREET	22	655	14,410	363,867	1,601	40,434	152	3,836	15	379
35	AISLE OF PALMS	S. SIDE OF 4TH STREET	N. SIDE OF 5TH STREET	14	645	9,030	372,917	1,003	41,437	95	3,931	10	389
36	AVENUE "A"	HIGHWAY 111	N. SIDE OF 1ST STREET	28	1,110	31,080	403,997	3,453	44,890	327	4,258	32	421
37	AVENUE "A"	N. SIDE OF 1ST STREET	N. SIDE OF 2ND STREET	28	335	9,380	413,377	1,042	45,932	99	4,357	10	431
38	AVENUE "A"	N. SIDE OF 2ND STREET	S. SIDE OF 5TH STREET	25.5	1,630	41,585	454,942	4,618	50,550	437	4,794	42	473
39	AVENUE "B"	S. SIDE OF 1ST STREET	N. SIDE OF 2ND STREET	25	306	7,650	462,592	850	51,400	81	4,875	8	481
40	4TH SREET	E. SIDE OF AVENUE "A"	W. SIDE OF AVENUE "G"	26	1,950	50,700	513,292	5,633	57,033	533	5,408	51	532
41	4TH SREET	W. SIDE OF AVENUE "G"	E. SIDE OF AVENUE "H"	30	360	10,800	524,092	1,200	58,233	114	5,522	11	543
42	4TH SREET	E. SIDE OF AVENUE "H"	E. SIDE OF AISLE OF PALMS	35	297	10,395	534,487	1,155	59,388	110	5,632	11	554
43	5TH STREET	E. SIDE OF AVENUE "A"	W. SIDE OF AVENUE "F"	14	1,629	22,806	557,293	2,534	61,922	240	5,872	23	577
44	5th STREET	E. SIDE OF AVENUE "G"	E. SIDE OF AISLE OF PALMS	14	668	9,352	566,645	1,039	62,961	99	5,971	10	587
45	5th STREET	W. SIDE OF AVENUE "F"	E. SIDE OF AVENUE "G"	14	300	4,200	570,845	467	63,428	45	6,016	5	592
TOTALS:					23,239 L.F.	570845 S.F.		63428 SYD		6016 TONS		582 TONS	

ROAD REHABILITATION CHART- A.C. SKIN PATCH, VARIABLE DEPTH A.C. OVERLAY, ARAM AND TYPE 2 SLURRY - TABLE B

STREET SECTION NUMBER	STREET	FROM	TO	WIDTH (FT)	LENGTH (FT)	PAVEMENT S.F.	ACCUMULATIVE PAVEMENT S.F.	PAVEMENT SYD	ACCUMULATIVE PAVEMENT SYD	VARIABLE DEPTH A.C. OVERLAY- 2" AT CENTER LINE & 1 1/4" AT RD. EDGES (TONS)	ACCUMULATIVE VARIABLE DEPTH A.C. OVERLAY- 2" AT CENTER LINE & 1 1/4" AT RD. EDGES (TONS)	SLURRY SEAL COAT DRY POUND SAND 18 LB/SYD (TONS)	ACCUMULATIVE SLURRY SEAL COAT DRY POUND SAND 18 LB/SYD (TONS)	SKIN PATCH - 1 1/4" DEEP (TONS)	ACCUMULATIVE SKIN PATCH - 1 1/4" DEEP (TONS)	ACCUMULATIVE SKIN PATCH AND VARIABLE A.C. OVERLAY (TONS)	
1	1ST STREET	E. SIDE OF AVENUE "A"	W. SIDE OF AISLE OF PALMS	26	2,582	67,132	67,132	7,459	7,459	705	705	68	68	525	525	1,230	
2	2ND STREET	E. SIDE OF AVENUE "A"	W. SIDE OF AISLE OF PALMS	26	2,581	67,106	134,238	7,456	14,915	705	1,410	68	136	525	1,050	2,460	
3	3RD STREET	E. SIDE OF AVENUE "A"	W. SIDE OF AVENUE "G"	26	1,936	50,336	184,574	5,593	20,508	529	1,939	51	187	394	1,444	3,383	
4	3RD STREET	W. SIDE OF AVENUE "G"	W. SIDE OF AISLE OF PALMS	29	643	18,647	203,221	2,072	22,580	196	2,135	19	206	146	1,580	3,725	
TOTALS:					7,742 L.F.	203221 S.F.		22580 SYD		2135 TONS		206 TONS		1590 TONS		3725 TONS	

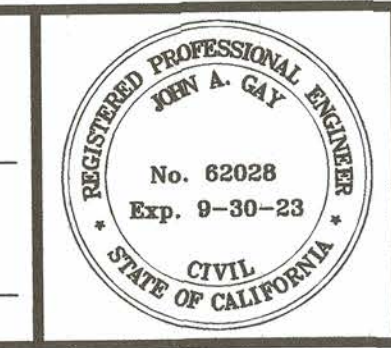
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1601 N. Imperial Avenue  
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Phone: (760) 337-3883  
Fax: (760) 337-5997

REVISION	DATE	COMMENTS



PREPARED UNDER THE DIRECT SUPERVISION OF:  
  
 JAMES G. "JACK" HOLT, P.E.  
 No. 31775 R.C.E. No.  
 Exp. 12/31/22  
 03/15/2022 DATE REG. EXP.



COUNTY OF IMPERIAL PUBLIC WORKS DEPARTMENT  
 APPROVED FOR CONSTRUCTION BY:  
  
 JOHN GAY, P.E.  
 DIRECTOR OF PUBLIC WORKS  
 No. 62026 R.C.E. No.  
 Exp. 9/30/23  
 5/3/2022 DATE REG. EXP.

PUBLIC WORKS DEPARTMENT  
 COUNTY OF IMPERIAL  
 EL CENTRO, CALIFORNIA

DATE	03/15/2022
DRAWN	JM
SCALE	
CHECKED	JGH

PROJECT TITLE  
**COUNTY OF IMPERIAL - BOMBAY BEACH TOWNSITE ROADWAY IMPROVEMENT PROJECT - COUNTY PROJECT NO. 6810**

BOMBAY BEACH TOWNSITE ROADWAY CHARTS  
 REFERENCE **R1005** THG # 542.106  
 SHEET 5 OF 6

**QUANTITIES FOR MANHOLE FRAME AND COVER, WATER VALVE RISER AND COVER, STOP LEGEND, STOP BAR AND BLUE RAISED PAVEMENT MARKER - TABLE C**

ITEM NO.	ITEM	UNIT	QUANTITY
1	RAISE WATER VALVE RISERS AND COVERS TO FINISH PAVEMENT GRADE	EACH	10
2	RAISE SANITARY SEWER MANHOLE FRAMES AND COVERS TO FINISH PAVEMENT GRADE	EACH	16
3	" STOP " LEGEND	EACH	16
4	" AHEAD " LEGEND	EACH	1
5	STOP BAR	L.F.	198
6	BLUE RAISED PAVEMENT MARKERS	EACH	6

**DEMOLITION AND RE-CONSTRUCTION OF FIFTH STREET BETWEEN AVENUES F AND G - TABLE F**

ITEM	AREA (SQ. FEET)	VOLUME (CUBIC FEET)	TOTAL VOLUME (CYD)	NEW A.C. PAVEMENT (TONS)	NEW CLASS 2 BASE (TONS)	SAWCUT A.C. PAVEMENT (L.F)	SCARIFY & COMPACT NATIVE MATERIAL (SQ. FEET)
DEMOLITION A.C. PAVEMENT - 3" PAVEMENT DEPTH	2100	525	20.00	----	----	----	----
NEW A.C. PAVEMENT - 3" OF A.C. PAVEMENT	4200	1050	----	79	----	----	----
UNDERLYING MATERIAL TO BE REMOVE AND DISPOSE OF	4200	2100	78.00	----	----	----	----
CLASS 2 BASE - 6" OF CLASS 2 BASE	4200	----	----	----	145	----	----
SAWCUT A.C. PAVEMENT	----	----	----	----	----	28	----
SCARIFY AND COMPACT 8" OF NATIVE MATERIAL	4200	----	----	----	----	----	4200

**A.C. PAVEMENT SWALE CHART AT 3RD STREET AND AISLE OF PALMS - TABLE G**

REMOVE AND DISPOSE OF A.C. PAVEMENT SECTION FOR SWALE	AREA (SQ. FEET)	A.C. DEMOLITION VOLUME (CUBIC FEET)	A.C. DEMOLITION VOLUME (CUBIC YARDS)	NEW A.C. PAVEMENT - PAVEMENT (TONS)	SAWCUT A.C. PAVEMENT (L.F)
3RD STREET AND AISLE OF PALMS - 3' OF A.C. PAVEMENT	426	106.5	3.94	8.0	89

**A.C. PAVEMENT SWALE CHART AT 4RD STREET AND AISLE OF PALMS - TABLE H**

REMOVE AND DISPOSE OF A.C. PAVEMENT SECTION FOR SWALE	AREA (SQ. FEET)	A.C. DEMOLITION VOLUME (CUBIC FEET)	A.C. DEMOLITION VOLUME (CUBIC YARDS)	NEW A.C. PAVEMENT - PAVEMENT (TONS)	SAWCUT A.C. PAVEMENT (L.F)
4TH STREET AND AISLE OF PALMS - 3' OF A.C. PAVEMENT	644	161	5.96	12	101

**A.C. PAVEMENT SWALE - 2ND, 3RD AND 4TH STREETS - TABLE D**

SWALE REPLACEMENT NO.	LOCATION	PAVE EDGE A (FT)	B (FT)	C (FT)	D(FT) C+2E	E (FT) A+B	PAVEMENT (S.F.)	PAVEMENT DEMOLITION ASSUME A.C. PAVEMENT IS 3" (CYD)	NEW A.C. PAVEMENT - PAVEMENT THICKNESS 3 INCHES (TONS)	SAWCUT A.C. PAVEMENT (L.F)
1	SWALE AT N. SIDE OF 2ND STREET AND AVENUE H	6.5	5	28	51	11.5	454.25	4.21	8.52	79
2	SWALE AT N. SIDE OF 2ND STREET AND AVENUE G	6.5	5	26.5	49.5	11.5	437	4.05	8.19	76
3	SWALE AT N. SIDE OF 2ND STREET AND AVENUE F	7	5	26	50	12	456	4.22	8.55	76
4	SWALE AT N. SIDE OF 2ND STREET AND AVENUE E	6.5	5	23	46	11.5	396.75	3.67	7.44	69
5	SWALE AT N. SIDE OF 2ND STREET AND AVENUE D	6.5	5	27	50	11.5	442.75	4.10	8.30	77
6	SWALE AT N. SIDE OF 2ND STREET AND AVENUE C	6.5	5	25.5	48.5	11.5	425.5	3.94	7.98	74
7	SWALE AT N. SIDE OF 2ND STREET AND AVENUE B	6.5	5	25	48	11.5	419.75	3.89	7.87	73
8	SWALE AT N. SIDE OF 3RD STREET AND AVENUE B	6.5	5	25	48	11.5	419.75	3.89	7.87	73
9	SWALE AT N. SIDE OF 3RD STREET AND AVENUE C	6.5	5	27	50	11.5	442.75	4.10	8.30	77
10	SWALE AT N. SIDE OF 3RD STREET AND AVENUE D	6.5	5	25	48	11.5	419.75	3.89	7.87	73
11	SWALE AT N. SIDE OF 3RD STREET AND AVENUE E	8	5	24	50	13	481	4.45	9.02	74
12	SWALE AT N. SIDE OF 3RD STREET AND AVENUE F	7	5	26	50	12	456	4.22	8.55	76
13	SWALE AT N. SIDE OF 3RD STREET AND AVENUE G	6	5	26.5	48.5	11	412.5	3.82	7.73	75
14	SWALE AT N. SIDE OF 3RD STREET AND AVENUE H	6	5	24.5	46.5	11	390.5	3.62	7.32	71
15	SWALE AT N. SIDE OF 4TH STREET AND AVENUE H	3	5	27	43	8	280	2.59	5.25	70
16	SWALE AT S. SIDE OF 4TH STREET AND AVENUE H	3	5	27	43	8	280	2.59	5.25	70
17	SWALE AT N. SIDE OF 4TH STREET AND AVENUE G	6.5	5	26	49	11.5	431.25	3.99	8.09	75
18	SWALE AT S. SIDE OF 4TH STREET AND AVENUE G	6	5	31.5	53.5	11	467.5	4.33	8.77	85
19	SWALE AT N. SIDE OF 4TH STREET AND AVENUE F	6.5	5	24.5	47.5	11.5	414	3.83	7.76	72
20	SWALE AT S. SIDE OF 4TH STREET AND AVENUE F	6.5	5	26	49	11.5	431.25	3.99	8.09	75
21	SWALE AT N. SIDE OF 4TH STREET AND AVENUE E	6.5	5	25	48	11.5	419.75	3.89	7.87	73
22	SWALE AT N. SIDE OF 4TH STREET AND AVENUE D	6.5	5	27	50	11.5	442.75	4.10	8.30	77
23	SWALE AT N. SIDE OF 4TH STREET AND AVENUE C	9	5	25	53	14	546	5.06	10.24	78
24	SWALE AT N. SIDE OF 4TH STREET AND AVENUE B	8.5	5	26	53	13.5	533.25	4.94	10.00	79
TOTALS							10300 S.F.	95.4 CYD	193.13 TONS	1797 L.F.

**NEW A.C. PAVEMENT TONNAGE SUMMARY CHART - TABLE I**

ITEM NO.	ITEM	TONS OF A.C. PAVEMENT
1	A.C. OVERLAY - TABLE A	6,016
2	A.C. SKIN PATCH - TABLE B	3,725
3	A.C. PAVEMENT AT 2ND, 3RD, AND 4TH STREET SWALES - TABLE D	193
4	A.C. AT PAVEMENT FAILURE AREAS - TABLE E	115
5	A.C. PAVEMENT AT FIFTH STREET RECONSTRUCTION BETWEEN AVENUES F AND G - TABLE F	79
6	A.C. PAVEMENT AT 3RD STREET AND AISLE OF PALMS SWALE - TABLE G	8
7	A.C. PAVEMENT AT 4TH STREET AND AISLE OF PALMS SWALE - TABLE H	12
TOTAL PROJECT A.C. PAVEMENT TONNAGE		10,148 TONS

**CLASS 2 BASE SUMMARY CHART - TABLE J**

ITEM NO.	ITEM	TONS OF CLASS 2 BASE
1	CLASS 2 BASE AT FIFTH STREET RECONSTRUCTION BETWEEN AVENUES F AND G - TABLE F	145
TOTAL PROJECT CLASS 2 BASE TONNAGE		145 TONS

**REMOVE UNDERLYING MATERIAL SUMMARY CHART - TABLE K**

ITEM NO.	ITEM	CUBIC YARDS OF UNDERLYING MATERIAL
1	REMOVE UNDERLYING MATERIAL AT FIFTH STREET RECONSTRUCTION BETWEEN AVENUES F AND G - TABLE F	78
TOTAL PROJECT UNDERLYING MATERIAL CUBIC YARD		78 CYD

**A.C. PAVEMENT SAWCUTTING SUMMARY CHART - TABLE L**

ITEM NO.	ITEM	SAWCUTTING OF A.C. PAVEMENT (LINEAR FEET)
1	SAWCUTTING A.C. PAVEMENT AT 2ND, 3RD, AND 4TH STREET SWALES - TABLE D	1,797
2	SAWCUTTING AT PAVEMENT FAILURE AREAS - TABLE E	344
3	SAWCUTTING A.C. PAVEMENT AT FIFTH STREET RECONSTRUCTION BETWEEN AVENUES F AND G - TABLE F	28
4	SAWCUTTING A.C. PAVEMENT AT 3RD STREET AND AISLE OF PALMS SWALE - TABLE G	89
5	SAWCUTTING A.C. PAVEMENT AT 4TH STREET AND AISLE OF PALMS SWALE - TABLE H	101
TOTAL PROJECT SAWCUTTING A.C. PAVEMENT (LINEAR FEET)		2,359 L.F.

**DEMOLITION OF A.C. PAVEMENT TONNAGE SUMMARY CHART - TABLE M**

ITEM NO.	ITEM	DEMOLITION OF A.C. PAVEMENT (CUBIC YARDS)
1	DEMOLITION OF A.C. PAVEMENT AT 2ND, 3RD, AND 4TH STREET SWALES - TABLE D	95.4
2	DEMOLITION OF A.C. AT PAVEMENT FAILURE AREAS - TABLE E	57
3	DEMOLITION OF A.C. PAVEMENT AT FIFTH STREET RECONSTRUCTION BETWEEN AVENUES F AND G - TABLE F	20
4	DEMOLITION OF A.C. PAVEMENT AT 3RD STREET AND AISLE OF PALMS SWALE - TABLE G	3.94
5	DEMOLITION OF A.C. PAVEMENT AT 4TH STREET AND AISLE OF PALMS SWALE - TABLE H	5.96
TOTAL PROJECT DEMOLITION OF A.C. PAVEMENT (CUBIC YARDS)		182 CYD

**GRADE, SCARIFY AND COMPACT EXISTING AGGREGATE BASE OR NATIVE MATERIAL FOR A DEPTH OF 8 INCHES - TABLE N**

ITEM NO.	ITEM	QUANTITY (SQ. FEET)
1	A.C. PAVEMENT SWALE ON 2ND, 3RD, AND 4TH STREETS	10,300
2	AC PAVEMENT SWALE AT 3RD STREET AND AISLE OF PALMS.	426
3	AC PAVEMENT SWALE AT 4TH STREET AND AISLE OF PALMS.	644
4	PAVEMENT FAILURE AREAS	6,092
5	FIFTH STREET BETWEEN F & G AVENUES	4,200
TOTAL GRADE, SCARIFY AND COMPACT EXISTING AGGREGATE BASE OR NATIVE MATERIAL (SQ. FEET)		21,662 S.F.

**SS-1H TACK COAT - TABLE O**

ITEM NO.	ITEM	QUANTITY (SQ. YARDS)
1	INSTALL SS-1H OVER EXISTING PAVEMENT SURFACE AFTER SWEEPING PAVEMENT - TABLE A	63,428
2	INSTALL SS-1H OVER A.C. SKIN PATCH AFTER SWEEPING SKIN PATCH SURFACE - TABLE B	45,160
3	INSTALL SS-1H ON EXISTING A.C. SAWCUT PAVEMENT FAILURE AREA EDGES PRIOR TO A.C. REPLACEMENT INSTALLATION	15
TOTAL A.C. PAVEMENT AREA TO RECEIVE SS-1H TACK COAT (SQ. YARD)		108,603 SYD

**PAVEMENT FAILURE AREA CHART - TABLE E**

REMOVE AND DISPOSE OF A.C. PAVE SECTION	AREA (SQ. FEET)	VOLUME ASSUME A.C. PAVEMENT IS 3" (CUBIC FEET)	TOTAL VOLUME (CYD)	ACCUMULATIVE VOLUME (CYD)	NEW A.C. PAVEMENT - PAVEMENT THICKNESS 3 INCHES (TONS)	ACCUMULATIVE NEW A.C. PAVEMENT (TONS)	SAWCUT A.C. PAVEMENT (L.F.)
1	1300	325	12.04	12.04	24.38	24.38	52
2	1632	408	15.11	27.15	30.60	54.98	132
3	1256	314	11.63	38.78	23.55	78.53	78.5
4	1903.5	475.875	17.63	56.40	35.69	114.22	81
TOTALS	6092 S.F.	1523 C.F.	57 CYD		115 TONS		344 L.F.

**TYPE 2 SLURRY - TABLE P**

ITEM NO.	ITEM	QUANTITY (TONS)
1	VARIABLE DEPTH A.C. OVERLAY, ARAM AND TYPE 2 SLURRY - TABLE A	592
2	A.C. SKIN PATCH, VARIABLE DEPTH A.C. OVERLAY, ARAM AND TYPE 2 SLURRY - TABLE B	206
PROJECT TOTAL TYPE 2 SLURRY (TONS)		798 TONS

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COUNTY OF IMPERIAL PUBLIC WORKS DEPARTMENT  
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**COUNTY OF IMPERIAL**  
 EL CENTRO, CALIFORNIA

DATE	03/15/2022
DRAWN	JM
SCALE	
CHECKED	JGH

PROJECT TITLE  
**COUNTY OF IMPERIAL - BOMBAY BEACH TOWNSITE ROADWAY IMPROVEMENT PROJECT - COUNTY PROJECT NO. 6810**

BOMBAY BEACH TOWNSITE ROADWAY CHARTS

REFERENCE	THG # 542.106
<b>R1005</b>	SHEET 6 OF 6